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PREFACE



It is an almost universal belief with the educated people of modern times that the world was created only a few thousand years ago, and that the oldest civilization cannot date farther back than, say, twenty-five thousand years before Christ. This assumption would seem to be most absurd to those who have entered into the spirit of the ancient Indian culture, unbiassed by any judgment passed by modern scholars on the antiquity of such a culture. The idea of the absolute creation of the Universe out of nothing, at a particular point of time, is more than an ordinary human being can conceive, in as much as it involves an attribution to God of such human characteristics as desire, want, and striving for the attainment of an wished for object, and thus reduces him to the level of an imperfect and human being. We are, therefore, justified in assuming, without entering upon a philosophical discussion of the subject, that the world is eternal with God, and creation means nothing more than the re-construction and re-moulding of matter, which, to a certain extent, takes place every moment. If the world is eternal—and it cannot be otherwise—what justification there is for the assumption that the civilization of which we can have only a glimpse, through records of a few thousand years only, is the only civilization known to the world? Is it not quite reasonable to assume that an infinite number of movements of civilization came upon and passed away from the face of the earth? We have, of course, no history of these civilizations, and naturally so. Can

history have a record of what takes place during an infinite number of years ? Modern people have compiled a history for the last few centuries only. Let them proceed in their present method of compilation for a few thousand years more, then they would find the task to be hopeless. It is physically impossible for a human being to go through a history which contains a detailed survey of all that takes place during, say, 25 thousand years, not to speak of a longer period. We may, therefore, safely assume that the idea of keeping a chronological and detailed history of the world must be given up after, say, thirty thousand years, if not earlier. What would our historians do then ? They would, in all probability, cull out of the past history some of the most important facts, and arrange them in a method which was followed by the authors of the Indian Puranas (i. e. ancient records). The Puranas are nothing but records of kings, sages, and important events that took place, in some cases, many thousands of years apart from one another. These records have been retained in the Puranas only on account of their moral, social, and religious significance. The ancient Indians realized the futility of keeping a detailed history of a world which is eternal and of their own civilization which, we have every reason to believe, was the most ancient known to the modern world, and had therefore to record ancient events of especial importance in a way which differs from the method followed by the modern historians. That being so, we cannot discard the authenticity of the Puranas and consider them as a collection of mythical legends and anecdotes only.

That the Puranas are not based on a mere fiction would find corroboration from independent sources. As for instance, I may refer to the phenomenon of Phallic Worship, the introduction of which into Europe, according to European tradition and mythology, is attributed to Bacche or Bacchus of Greek mythology. Now Bacche or Bacchus, according to Assyrian mythology, was an Indian (see Phallism in Encyclopedia of Ethics and Religion), the event of whose annual return from India used to be celebrated with a great festival on Mount Ymolus in Lydia. The question which now presents itself is, do we find any reference to this Bacche in our Puranas ? Yes we do. In Bamana Puranam (chapter VI) we are told that one of the earliest advocates of Phallic Worship was Baka, king of "Creetha" (Crete ?), who was an Indian Vaisya by caste, and was initiated into Phallism by his Indian preceptor, the sage Apastamba. Here, we have got, I think, data sufficient to warrant the identification of the Greek or Assyrian "Indian Bacchus" with Baka of the Bamana Puranam. Be that what it may, we look upon the Puranas as having a historic basis. They are, with the Vedas and the Tantras, the most ancient literature of the Indians that have been preserved, after countless acts of destruction of books and libraries by ignorant fanatics. The comparative modernness of the language in which the Puranas and the Tantras written does not justify the conclusion that they are of a comparatively modern origin, in as much as the language of the Tantras and the Puranas have been, for obvious reasons, revised from time to time, and new facts introduced into this group of literature.

According to the Puranas, the world is eternal, creation being taken to mean periodical reconstruction after dissolution. The age of the present Kalpa, i.e. of the world from the time of its last reconstruction to the current year is 1955885027 years. This is a figure which is based upon a tradition, as transmitted from generation to generation, through our science, philosophy, history, and scriptures.

Rasavidya, or Chemistry including Alchemy, began to be cultivated by the ancient Aryas as early as the beginning of the present Kalpa, i.e. more than 1950000000 years back. We have got fragments of two books, the authorship of which has all along been assigned to the great Rama Chandra (the hero of Ramayanam, an epic composed by the sage Valmiki who was a contemporary of the hero himself), who learnt the science of chemistry from Kalanatha, a sage living in the forests, during the fourteen years of his exile from his father's dominions. According to the tradition in vogue amongst the siddhas (chemists), King Ram Chandra was also called, Dandaka Nath, on account of his living in the forest of Dandaka for several years. The books said to have been compiled by this king are named, (1) Rama rajiya, and (2) Rasendra Chintamani. (The latter of these is to be distinguished from Rasa Chintamani, a book compiled by Ananta Deva Suri, not Madananta Deva Suri, as stated erroneously in Dr. Sir P. C. Roy's book). Now, Rama Chandra flourished, according to Indian history, at least 900000 years back. It appears from these fragments that chemistry of medicine reached a very high state of perfection at the time of Rama Chandra. The authorship of another

book, viz. "Arka Prakasha" has all along been attributed to Ravana, the great king of Lanka, who was killed in battle by king Rama Chandra. This "Arka Prakash" is an excellent booklet containing a comprehensive treatment of all sorts of diseases by means of tincturs only. It contains at least one recipe for the preparation of a mineral acid. That being so, we cannot accept as true the assumption of Dr. Sir P. C. Roy that probably Indians came to learn the preparation of mineral acids from the Portuguese. The fact is that mineral acids are not to be used in medicines prepared from mercury and other metals. That is why the Doctor did not find any reference to these acids in ancient books on Rasa Vidya.

Innumerable books on chemistry were written from the earliest times. Most of these are no longer available. Only the names of some of them have been preserved. At present we have got only a few compilations, based on older ones, and most of them are fragmentary and incomplete. In chemistry of medicine and Alchemy, if not in any other branch of chemical knowledge, the ancient Aryas reached a very high degree of perfection. Herodotus testifies to the fact that there were, at his time, Yogis in India who used to live an unusually long life by the use of some mercurial preparations. My readers may take it from me that, even in our own time, there are many such yogis, living in the forests of the Himalayas, Amarakantaka, etc. who live an incredibly long life by the use of mercurial potions. Preparation of many such medicines will be found described in the several volumes of the present work. As for Alchemy, it was a matter of common knowledge with the ancient

Indian chemists. Philosopher's stone is not altogether a myth. How it was prepared in ancient times has been described in the present work.

The Mahomedan period of the Indian History was the darkest age of Hindu culture and civilization. The whole country was at that time in an almost perpetual state of anarchy and confusion. People were in a state of constant fear for loss of life, property, and honour, with the result that trade, commerce, and learning came to a stand-still. The race of chemist physicians became gradually extinct. Difficulty of procuring rare metals increased with the uncertainty of trade and commerce. Physicians in villages therefore took to the practice of medicines prepared from herbs only, especially in view of the fact that they were much cheaper than medicines prepared from metals. Chemistry of medicine thus came to be almost forgotten by the common run of physicians. It continued, however, to be cultivated, to a certain extent only, by some Yogis in the forests, where there was no chance of meeting with much obstacle. But in the absence of encouragement and patronisation by the state, the science could not be systematically cultivated during the Mahomedan period.

All this would explain the present state of deep degradation of Indian Chemistry. Before the publication of Dr. P. C. Roy's History of Indian Chemistry, the majority of our educated countrymen were not even aware of the existence of such a branch of knowledge as Indian Chemistry and Alchemy. Most of the Vaidyas or Kavirajas of the present day (i.e. physicians practising Indian system of medicine) are

ill-educated and content with a very little knowledge of the subject. Especially is the case in Bengal, where the Kavirajas, for the several centuries past, depended on medicines prepared from herbs, vegetable products, clarified butter, etc. It will be interesting to note that the late Kaviraja Gangadhara Sen of Murshidabad, a physician of remarkable attainments, who died some 50 years back, had no faith in metallic medicines and did not care to acquaint himself with chemistry of medicine. Matters have much improved since the death of the great Kaviraj, but speaking generally, the present day Kavirajas of Bengal are ignorant of the 18 mercurial operations, which can safely be considered to be the pivot round which the whole of the Indian Chemistry rotates.

In recent times, some Allopaths, a few of whom are very good scholars too, have taken to the practice of indigenous system of medicines, but, unfortunately, they have not yet come to be aware of the fact that the greater portion of Ayurveda, which deals with chemistry and Alchemy, has for the several centuries past, been a terra incognita to that class of physicians from whom they had to receive their training. They have not yet been aware of the fact that the ancient glory and greatness of Ayurveda was due neither to its progress in Surgery, Anatomy, etc. as taught by Sushruta, etc.—which these well-meaning physicians have been trying to revive, by the introduction of western methods, where necessary,—nor to the excellence of herbal drugs, as taught by Charaka, etc. but to the exceptional and unique progress which Ayurveda made in the region of Medical Chemistry.

While anxious for the revival of Ayurvedic culture in India, let me sound a note of warning to the authorities of the different Ayurvedic institutions, which have been started during the present decade, that unless and until the greatest stress is laid upon the revival of Indian Chemistry of medicine, as outlined in the present work, there is not the slightest chance of recovering the glory which Ayurveda lost about a thousand years ago. Let not the teachers of these Ayurvedic Colleges try to perpetuate the state of ignorance of chemistry prevailing among the present generation of the Kavirajas, content with the teaching of only those branches of Ayurvedic lore with which they can claim some acquaintance. An undue importance has been attached by these Ayurvedic teachers to the teaching of modern Surgery, etc., which has the effect of investing the present system of Ayurvedic teaching with a hybrid character, neither Ayurvedic nor Allopathic, but one which partakes of the nature of both. The sense of gratification which I felt a few years ago at the news of the Hindu University of Benares having opened an Ayurvedic Department was followed by a rude shock which I received at what I personally came to know about it at Benares. It is a poor apologia of Ayurveda, and not Ayurveda proper, that is taught at the Benares University. The same remark applies to the Astanga Ayurveda Vidyalaya of Calcutta and similar institutions. In my reference to these seats of Ayurvedic learning, I am not guided by malice or personal grudge but by a real desire to learn that my remarks have made the authorities of these institutions alive to the necessity for an adequate arrangement for the teaching of Indian chemistry in these places.

I have been a devout student of Ayurveda even from my boyhood, and I would have naturally followed the same track as beaten by the common run of Vaidyas or Kavirajas of the present day. But Providence willed otherwise. It was a mere accident that I came to be in contact with a Yogi from whom I learnt much more than could be found in the existing books on Indian Chemistry, each of which is incomplete, incoherent, incorrect, and in many cases misleading. The instructions which I received from my preceptor yogi have enabled me to arrange methodically the materials found in the existing books on chemistry, which were mostly in a chaotic state, and have been neglected for several centuries past.

There were four different schools of treatment of diseases in ancient India, viz., treatments (1) by rasa, i. e., mercury and other metals, (2) by herbs and vegetable drugs, (3) by charms, incantations, etc., and (4) by surgical instruments.

These four different kinds of medical systems were cultivated, side by side, from time out of memory, by different classes of people. Of these, it was believed that the first system was of divine origin, the second and third of human origin, and the fourth of demoniac or barbarous origin. I leave my readers to form their own opinions as to the exact significance of all these remarks. Personally, I consider the chemical system of Indian medicine as of divine origin. It is not a science in the ordinary sense of the term. It is not a collection of experiential truths or inductive generalizations, based on observation and experiment. It is a super-science, and, as such, is based on something higher than observation and

experiment—call it inspiration, revelation, or what you will. It is not possible, even for a very careful and devoted student of Rasa-Vidya, to explain, in many cases, why a certain line of procedure was prescribed with a view to attain an end in view. Neither is it possible for us to make any material addition to what has been transmitted to us from time out of memory. I have no doubt any one who has been able to enter into the spirit of Rasa-Vidya would feel constrained to endorse these views. It is Rasa-Vidya which rendered treatment of diseases by surgical instruments almost useless and superfluous. Even in our own time, boils, carbuncles, etc., are found to be cured by oils and ointments, prepared out of metals and indigenous herbs, more speedily and effectively than they are by surgical operations.

The present day people of India have been animated with an intense desire for the attainment of political independence, partial or complete. Let them strive for it by all means, constitutional and legitimate. But they seem to be blind to the fact that cultural independence for India is much more valuable than the attainment of political independence. My attitude to politics is one of absolute detachment, but, if I am to express my views about the present day politics of India, I may say that India, as it is inhabited by a large number of Mahomedans whose sympathy is more with their co-religionists in Afghanistan, Arabia, Persia, etc., than with their Indian neighbours of the same blood, will not be able to retain complete independence for a very long time, even if it ever be granted to us. To be ruled by any other nation than the British would be a worse

lot for the Indians. A dominion status of self-Government, within the British empire, appears therefore to be the safest possible constitution for India. But it is too much to expect that Britain would ever consent to the Indians having such a government, unless she is convinced of the fact that 32 crores of people, contented with British overlordship, cannot but add to the strength of the empire. In the meantime we should try, I think, to secure the goodwill of the British people by the exhibition of our greatness—moral, cultural, and intellectual. Be that what it may, personally, I prefer cultural greatness for India to political independence.

I think, I should be a little more explicit here, and say that I advocate cultural independence for India, not because I hate western culture and civilization, which our people have been striving hard to follow, but because India can still boast of a culture and civilization of her own, which it would be most unfortunate and unwise to allow to be effaced from the face of the earth. The majority of the modern Indians suffer from a peculiar mentality which makes them attach very little importance to their own culture and civilization. They came to realize the importance of their philosophy, only when they were told of it by Schopenhaur, Maxmuller, etc.—of their medicine, when told by such European physicians as the late Surgeon General Dr. Lukis, etc.—of their tantras, when told by Sir John Woodroffe. It was Lord Ronaldshay, if I remember aright, who advised the Indian youths to turn to Indian culture, and to assimilate it, when possible and desirable, with the best of what we find in western culture and civilization. His advice to us was not to follow blindly the

western culture and civilization. But, I am afraid, it has fallen mostly on indifferent ears.

It is generally believed that it was in the field of abstract thought and spirit, and not in the field of science and material progress that the ancient Hindus attained greatness. This assumption is based on a total ignorance of Hindu culture, tradition, and history. The famous iron pillar of Delhi is not the only existing proof of the greatness which the ancient Indians attained in the field of industrial chemistry and metallurgy. In an article contributed to the "Forward" of Calcutta (in its issue of the 4th November 1925), I invited the attention of the public in general to the existence at Hyderabad (H.E.H. the Nizam's Dominion) of a manuscript Library, perhaps the biggest of its kind in India, which is reported to contain numerous books which have not yet been published. Some of these books are reported to deal with such scientific matters, as (1) process of embalming of dead bodies, (2) making of a kind of glass by means of which it is possible to see through water even the minutest article lying below its surface, (3) arrangement for constant supply of hot water through pipes without the application of heat, (4) growing cotton of any colour desired, (5) transformation of base metals into gold, (6) smelting of precious stones and letting them have any shape and colour, (7) communication between two persons living thousands of miles apart from each other, by means of two blocks of stones, especially constructed, (8) construction of a machine by means of which it is possible to ascertain the nature of minerals and hidden treasure deposited under a particular soil.

If would not be quite out of place to repeat here my appeal to my countrymen for the purchase and preservation of this Library as a national asset. Intending gentlemen may communicate with Dr. Md. Kashim (Jaghirdar, Patharghati, Hyderabad, (H.E.H. the Nizam's Dominions, the Deccan), who is the present owner of the Library.

In compiling the present work (intended to be completed in 10 volumes), I have depended mainly upon what I learnt from my ascetic preceptor and upon the existing books on chemistry. The science of Alchemy has all along been an accomplished fact with the ascetic chemists of India. There are many such chemists even in our own times. They are in the habit of preparing from time to time only as much real gold as is actually necessary for the bare subsistence. My readers may be curious to know whether I can transform base metals into gold. My reply to this will be that the process has been demonstrated to me by my preceptor, and I am confident, I can carry on the operations successfully, if I am provided with an well-equipped laboratory and given an opportunity of devoting myself exclusively to this line of work.

It is a matter of pity that Indian Chemistry, which according to the sage Dandaka Nath or King Ramachandra, is an indispensable pre-requisite for the study of all other subjects of human culture, has not yet been considered a subject fit for being taught even in the greatest of the Indian Universities. To this fact I invited a few years ago the attention of the late Sir Ashutosh Mookerji of revered memory, who advised me to wait till the Public came to know

more about this apparently new science. Is it too much for me now to expect that the local governments and the authorities of the different Indian Universities will consider the desirability of teaching this subject in their respective Universities ?

I cannot conclude the present work without a short notice of Dr. Sir P.C. Roy's History of Indian Chemistry which was written with the object of proving to the world that the ancient Hindus knew a good deal of Chemistry much earlier than the other races of the world. The book is well written, and reflects credit upon the great chemist. It has served its purpose fairly well, but I am afraid, it has failed to convey to its readers the most fundamental and prominent features of Indian Chemistry. With due deference to Dr. Roy's remarkable attainments in the field of modern Chemistry, I feel constrained to observe that Dr. Roy's approached the subject as an amateur critic and not as a trained student of Indian Chemistry of medicine, which differs fundamentally from modern chemistry. Hence is his failure to enter into the spirit of Rasavidya, and to get hold of the central idea upon which the whole structure of the Hindu Chemistry is erected; viz., the fact that mercury can be made to swallow, by special processes, a considerable quantity of gold or other metals, without any appreciable increase in the weight of the swallowing mercury. I have no doubt this statement will appear to my readers to be highly dogmatic, paradoxical, and revolting against the common sense of rational beings, but I cannot help it. The statement is based on a practical experience and an arduous research carried on for several years.

Let my readers perform faithfully the operations described in the present volume, and then form their own judgment as to the truth of the statement.

It is earnestly hoped that Dr. Sir P. C. Roy will live to bring out a revised edition of his book, which contains so many misinterpretations of important principles of Hindu Chemistry, due, no doubt, to a hasty and superficial study of the subject.

In conclusion, I am to acknowledge the deep debt of gratitude which I owe to the reputed vedic scholar, Prof. Khatish Ch. Chatterji, M.A., Lecturer, Post Graduate classes in Sanskrit, Calcutta University, for the valuable assistance he rendered to me in correcting the proof sheets. I am also very grateful to Mr. M. N. Bose, B. A., (Cantab), Bar-at-Law, Mr. Jatish Chandra Mitra, M.A., Professor of English, Berhampore College, and some other friends, for the sympathy and encouragement which I received from them in the compilation of this encyclopedic work.

172 BOWBAZAR STREET,

CALCUTTA.

BHUDEB MOOKERJI

25th November, 1926.



रसजलनिधिः ।

ॐ

मङ्गलाचरणम् ।

रसजलनिन्दस्फुरितनयनोत्क्षेपमात्रेण विश्वं
 सृष्टं ध्वस्तं मुद्गरपि पुनस्तस्य गात्रे विलीनम् ।
 मृत्युं जित्वा सकलभुवनं पाति शश्वद् य एव
 वन्देऽहं तं सकलविभवागाररूपं महेशम् ॥
 त्रेतायां यैर्मुनिकुलवरैः श्रीभरद्वाजदेवैः
 स्वर्गानीता नरगणहितेप्सेरितैर्वैद्यविद्या ।
 तेषां वंशे कृतजनुरहं विप्रभूदेवदेवो
 ग्रन्थः पुण्यः रसजलनिधी रच्यते संप्रयत्नात् ॥
 अशेषवासनासिद्धयै सर्व्वमङ्गलदायकौ ।
 वन्देऽहं पितरौ भक्त्या जगतः पितराविव ॥
 हरिलालः पिता देवो माता निस्तारिणी तथा ।
 मुखोपाध्यायवंशे हि जातोऽहं शङ्कराश्रितः ॥
 गङ्गाराष्ट्राभिधे राज्ये वङ्गदेशे पुरातने ।
 हस्तिशालाख्यके ग्रामे मन्मथानदीतटे ॥

नैषधकाव्यकारस्यान्वये जातावधस्तनौ ।
 रत्नसुखोपपन्नौ च वसतः पितरौ मम ॥
 रसविद्या वरा विद्या कल्पादौ शूलिना स्मृता ।
 जराव्याधिविनाशार्थं भारते सम्प्रचारिता ॥
 अधुना मृतकल्पा सा सकलार्थप्रदायिनी ।
 नाद्रियते महीपालैर्देशजैश्च विदेशजैः ॥
 संख्यातीताः रसग्रन्थाः रचिताः प्राङ् महर्षिभिः ।
 अमीषां बहवो नूनं विलोपं नितरां गताः ॥
 दुर्लभा इतरे ग्रन्था जाटिल्यविषमूर्च्छिताः ।
 संगृह्य यत्नतोऽनेकान् संहिता रचिता मया ॥
 फालीचेत्रे पुरीश्रेष्ठे मृत्युञ्जयप्रसादतः ।
 षट्पुपद्मभ्रवाणाब्दे कलेश्च विषमस्य च ॥
 रसरत्नलुहादिभिर्देवीति प्रोच्यते बुधैः ।
 श्लोषधिभिस्तथा मन्त्रैश्चिकित्सा मानुषी स्मृता ॥
 राक्षसी ज्ञायते सद्भिः शस्त्रादिभिः कृता तु या ।
 अतएव रसक्रिया शिचणीयातियत्नतः ॥

INTRODUCTION.

I bow down to the Greatest of the great, at the movements of whose blissful eyes the universe comes into being, undergoes dissolution, and is frequently absorbed in Himself—I bow down to Him who has conquered death, has been maintaining the universe from all eternity, and is the source of all greatness and magnanimity.

This salutary book, entitled Rasajalanidhi (the ocean of Metallurgy), is compiled very carefully by me, Bhudeba, a Brahman by caste, and descendant of the great sage, Bharadwaja, who, actuated by the motive of doing good to the suffering humanity, brought down to Bharat (India), in the Treta age (about five hundred thousand years ago), the science of medicine from the country of Swarga (a country corresponding to modern Mongolia—a region from which the forefathers of the Aryan Indians migrated gradually into the plains of India*).

For the fulfilment of all desires, I bow down to my parents, who are the sources of all bliss, and appear to me to be the parents of the universe itself. My father's name is Harilala Deba, and that of my mother is Nistarini Debi. I come of the Mukhopadhyaya (meaning, great preceptor) family, and am favoured by the three-eyed Deity (*i.e.*, God). My parents are endowed with all good qualities, are descendants of the author of Naisadha Charitam (a well-known Sanskrit poem, composed by

* Vide 'Original Home of Mankind' written in Bengali by the late Pundit Umesh Chandra Vidyaratna.

the great poet Sreeharsa, a savant from whom have descended all the persons bearing the family name of Mukhopadhyaya, or Mookerji, as it is generally written in English for the sake of brevity), and residents of a village, named Hastisala, situated on the banks of the river Maurakshi, in the ancient region of Gangarashtra (modern Rarh) in Bengal.

Metallurgy is a great science revealed to the world by God Himself at the commencement of the present Kalpa (a mundane period, followed and preceded by a dissolution of the universe—the present Kalpa commenced, according to Indian history, some 160,000,000 years back.)* It was introduced into India for the purpose of preventing disease and premature old age. This science, which is the giver of all wished-for objects, is now in a moribund condition, and is no longer given attention to by kings, whether Indian or foreign. Numerous were the books written on Metallurgy and Chemistry by ancient Indian sages. Most of these books have completely been lost; those which are extant are mostly very rare, and not very intelligible. The present book is based on many of those which are still extant, and have been collected carefully. It is written by the grace of the conqueror of death at

* The theory of the creation of the universe out of nothing is untenable, in as much as it implies want and desire in God, and thus reduces Him to the level of a finite being. God is eternal, and so is the universe, which only undergoes periodical dissolution and change of form.

the great city of Kalikshetra (Calcutta) in the year 5026 of the perverted Kalijuga. *

Treatment of diseases by Rasa (mercury), gems, metals etc is divine, that by incantations and vegetable drugs human, and that by surgical instruments diabolical. Metallurgy is therefore to be learnt very carefully.

* According to the Hindus, eternity is measured by the following terms :—Kalpa, Manwantara and Juga. Kalpa is the period which is followed and preceded by the dissolution of the universe. A Kalpa is sub-divided into so many Manwantaras, each of which is again subdivided into so many Jugas.

प्रथमोऽध्यायः ।

अथ रससाधनस्य प्रयोजनानि ।

(१) आचार्यलक्षणम् ।

रसाचार्यो भवेज् ज्ञानी सुदक्षो रसकर्मणि ।
तेजस्वी सदयो धीरस्तान्त्रिको शिवसाधकः ॥
शिवाभक्तो जितेन्द्रियो सर्वजीवहिते रतः ।
सर्वेन्द्रियोपपन्नश्च बहुविद् भक्तवत्सलः ॥

CHAPTER I.

Requisites for Metallurgical Operations.

(1) *Qualifications of a Preceptor.*

The preceptor should be wise, well-versed in Metallurgy, courageous, kind-hearted, modest, student of the Tantras, worshipper of Shiva and Shiva (both representing the Universal soul in its two aspects, male and female, worshipped by votaries as Deities with human forms, which, it is believed, the Universal Soul assumes whenever it reveals itself to the devotees), having a control over the sense-organs and passions, inclined to doing good to all creatures, having all his senses well-developed, possessing an all round knowledge of many things, and fond of disciples.

(२) अथ शिष्यलक्षणम् ।

शिष्यः स्यान् निरहंकारी सत्यवादी दृढव्रतः ।
 वितर्कस्मृतिसम्पन्नो मेधावी गुरुवत्सलः ॥
 निरालस्यः सदाचारः कालिकाशिवपूजकः ।
 सर्वेन्द्रियोपपन्नश्च सुगठितवपुस्तथा ।
 रसविद्या वरा विद्या शिष्योयातियत्नतः ।
 न देया परशिष्याय नास्तिकाय शठाय च ॥

(2) *Qualifications of a Disciple.*

A disciple should be modest, truthful, persevering, endowed with the power of reasoning, memory, and power of retention, devoted to his preceptor, devoid of idleness, having healthy habits, worshipper of Kalika (Shivá) and Shiva, and should have all of his senses well-developed and well-built.

Metallurgy is a great science which should be taught very carefully ; but not to those who are not disciples, who are atheists, and who are dishonest

(३) अथ रसशाला-निर्माणम् ।

खलाज्ञतस्करादीनां भयं यत्र न विद्यते ।
 हरगौरीसमायुक्ते शोभने नगरे तथा ॥
 विपुलोपवने रम्ये सर्वौषधिसमन्विते ।
 निर्मातव्या रसशाला सर्व्वविघ्नविवर्जिता ॥
 बह्विद्वारसंयुक्ता निर्मलनीरसन्निधौ ।
 समाचर्या रसक्रिया रहसि धीमता तथा ॥

शालायाः पूर्वदिग्भागे रच्यन्तु रसमण्डपम् ।
 वातायनसमायुक्तमर्करश्मिविभासितम् ॥
 भूमिस्तत्र समा कार्या पाषाणस्फटिकोपमा ।
 तन्मध्ये वेदिका रच्या सर्वलक्षणसंयुता ॥
 प्रतिष्ठाप्यं तथा यत्नात् रसज्ञैः रसलिङ्गकम् ।
 नित्यं पूज्यं यथाशास्त्रं सर्वार्थानां सुसिद्धये ॥

(3) *Construction of a Laboratory.*

The proper place for a laboratory is a wide and beautiful garden, with all sorts of medicinal plants grown there-in, in a beautiful town where the images of the Deities, Hara and Gauri (Shiva and Shivá) are worshipped, and where there is nothing to fear from cheats, ignorant people, thieves etc. The laboratory should be freed from all sorts of disturbances, should have a sufficient number of doors and windows, and should be within the reach of a sufficient supply of pure water. It is in such a place that the intelligent should carry on their metallurgical operations in seclusion. On the eastern side of the laboratory should be erected what is called a Rasamandapam (i. e., a big hall for the storing of metals), which should be furnished with a sufficient number of doors and windows, and should have a sufficient quantity of daylight entering into it. The floor of this hall should be very plain, strong as stone, and clear as quartz. In the midst of this hall should be erected a platform or dais with its best characteristics, in which is to be placed

a Phallic emblem of God, made of mercury, which should be worshipped by the adept, in accordance with the procedure laid down in the sacred books (and with special reference to the instructions given below).

(४) अथ रसलिङ्गं कथ्यते ।

साद्धर्कोलं सुवर्णस्य पत्रञ्च त्रिगुणं रसः ।
याममेकं विमर्दयेदम्लरसेन यत्नतः ॥
तेन लिङ्गं विनिर्मितं जम्बीरस्थं दिनं पचेत् ।
दोलायामारनाले तु प्रतिष्ठाप्यं ततो मुदा ॥
असंख्यशिवलिङ्गानामर्चनाद् यत् फलं भवेत् ।
तत् फलं प्राप्यते नूनं रसलिङ्गस्य पूजनात् ॥
दर्शनाज्जायते पुण्यं स्पर्शनाच्च ततोऽधिकम् ।
पूजनाल्लभ्यते मुक्तिरिति सत्यं शिवोदितम् ॥
नास्ति परतरं लोके रसलिङ्गस्य पूजनात् ।
आग्नेयीं श्रीमघोरेण मन्त्रराजेन * चार्चयेत् ॥

* तथाहि शिवमहिम्नः स्तोत्रे—“अघोराज्ञापरो मन्त्रः”—इत्यादि ।
मन्त्रोऽयं लिख्यते अत्र—

ॐ ह्रीं ह्रीं हूं अघोरतर प्रस्फुट प्रस्फुट प्रकट प्रकट कह कह शमय
शमय जात जात वह वह पातय पातय । ॐ ह्रीं ह्रीं ह्रीं हूं अघोराय
फट् ।

ॐ अघोरेभ्योऽथ घोरेभ्यो घोरेघोरतरेभ्य ॐ ।
नमो वः सर्वसर्वेभ्यो रुद्ररूपेभ्य एव च ॥

अथ ध्यानम् ।

अष्टादशभुजं शुभ्रं पञ्चवक्त्रं त्रिलोचनम् ।
 प्रेतारूढं नीलकण्ठं रसलिङ्गं विचिन्तयेत् ॥
 तस्योत्सङ्गे महादेवीमेकवक्त्रां चतुर्भुजाम् ।
 अक्षमालांकुशं दक्षे वामे पाशाभयं शुभम् ॥
 दधतीं तप्तहेमाभां पीतवस्त्रां विभावयेत् ।
 एते ध्याने जगत् पित्रोः साधको हृदि धारयेत् ॥

अथ रसाङ्गुलीनामा देव्यर्चनामन्त्रः ।

वाङ्मयी श्रीः कामराजशक्तिबीजं रसाङ्कुशा ।
 या समा स्याद् रसस्यैव ज्ञेया विद्या रसाङ्कुशा ॥
 मन्त्रेनानेन सम्पूज्या विहितैरुपचारकैः ।
 नन्दीभृङ्गीमहाकालकुलीरान् पूर्वदिक्क्रमात् ॥
 पूजयेन् महामन्त्रैस्तु प्रणवादिनमोऽन्तकैः ॥

(4) *The Rasalingam, (Phallus made of Mercury).*

One Kola * and half of pure gold leaf, and three times its weight of mercury are to be rubbed for three hours with some vegetable sour juice and made into a Phallic image of the God, Siva. This image is to be put inside a lemon and boiled in Kanji (gruel), by means of a Dola Jantra. It is then to be properly installed with joy. The merit acquired by the worship of a Rasalingam equals that acquired by the worship of innumerable ordinary Phallic images. To

* For explanation of difficult words see appendix.

have a look at this image means to acquire some merit, to touch it is to multiply the same, and to worship it means to be entitled to emancipation. There is nothing more meritorious in this world than to worship a Rasalingam. Sree (literally, the beauty of the universe), the fiery Goddess is also to be worshipped with Aghora, the king of mantras (hymns). *

The conception of the two Deities:

The Rasalingam is to be conceived as having eighteen arms, white complexioned, five-mouthed, three-eyed, mounted on a ghost, and blue-throated. On his laps is seated the great Goddess, having one mouth and four arms with a garland of lotus seeds and a trident in the right hand, and dice and an emblem of assurance of protection in her left hand ; of a complexion resembling gold in the furnace, and dressed in yellow.

These are the conceptions of the parents of the universe, which are to be meditated upon by a devotee.

The Rasankusi Mantra or the hymn to be recited in connection with the worship of the Goddess is as follows :— †

The goddess of beauty is in the form of speech or word ; is the root cause of the energy of the Greatest Object of desire (i. e., God Himself),

* The hymn is given in original in the foot note on page 9 No translation is attempted.

† For a detailed procedure to be followed in the worship of both the Deities, a disciple should depend upon the instructions given by his preceptor.

and is the sovereign force behind Rasa (mercury). She is equal to mercury. It is therefore worth while to learn how to control mercury.

Thus the Goddess is to be worshipped with due offerings; and so also are to be worshipped Nandy, Bhringi, Mahakala and Kulira (followers of Siva).

(५) अथ रसशालाया विवरणम् ।

शालाया पूर्वदिग्भागे स्थापयेद् रसभैरवम् ।
 वह्निकर्माणि चाग्नेये याम्ये पेषणकर्म च ॥
 नैऋत्ये शस्त्रकर्माणि वारुणे क्षालनादिकम् ।
 शोषणं वायुकोणे च वेधकर्मोत्तरे तथा ॥
 स्थापनं सिद्धवस्तूनां प्रकुर्यादीशकोणके ।
 पदार्थसंग्रहः कार्यो शालायाः मध्यभागके ॥

(5) *Details of the Laboratory.*

On the eastern side of the laboratory should be placed the Rasalingam. Metallurgical operations requiring the use of fire should be performed on the south eastern side. Grinding, rubbing, and powdering operations on the southern part; surgical operations on the south-eastern part; washing on the western part; drying on the north-western part; transformation of base metals into gold on the northern part; and storing of finished products to be done on the north-eastern part. The central part of the laboratory should be utilized for storing raw materials.

(६) अथ शालाया उपकरणाणि ।

सत्त्वपातनकोष्ठीश्च भरत्कोष्ठीं सुशोभनाम् ।
 भूमिकोष्ठीं चलत्कोष्ठीं जलद्रोणीरनेकधाः ॥
 भद्रिकायुगलं तद्वद्भालिके वंशलोहयोः ।
 स्वर्णायोधोषशुल्वाश्मकुण्डांश्चर्मकृतान्तथा ॥
 करणानि विचित्राणि द्रव्याण्यपि समाहरेत् ।
 कण्डनी पेषणी खल्ला द्रोणीरूपाश्च वर्तुलाः ॥
 आयसास्तप्तखल्लाश्च मर्दकाश्च तथाविधाः ।
 सूक्ष्मच्छिद्रसहस्राढ्या द्रव्यगालनहेतवे ॥
 चालनी च कटत्रेण शलाकया च निर्मिता ।
 सैव हि त्रिविधा प्रोक्ता तत्स्वरूपश्च कथ्यते ।

(6) *Equipments of the Laboratory*

Furnaces for the extraction of essences of metals, those for distillation, those that are movable, and those that are embedded into the ground, water troughs of various kinds, a pair of bellows; tubes made of bamboo as well as of iron; pots; made of gold, iron, bell-metal, copper, stone, and leather—these and all sorts of other strange and interesting apparatus, such as those under-mentioned are to be collected. Iron mortars for powdering drugs, grinding stones, boat-shaped as well as circular, stone mortars for rubbing of drugs, iron mortars meant to be placed on fire,

all furnished with adequate rods for rubbing and hammering. Sieves furnished with thousands of very minute holes, meant for sifting fine powders, and made of both leather and fine sticks. Sieves are of three different kinds as per descriptions given below.

वैण्डीभिः शलाकाभिर्निर्मिता ग्रथिता गुणैः ।
 कीर्त्तिता सा सदा स्थूलद्रव्याणां गालने हिता ॥
 चूर्णचालनहेतोश्च चालन्यन्यापि वंशजा ।
 कर्णिकारस्य शालमल्या हरिजातस्य कम्बया ॥
 चतुरङ्गुलविस्तारयुक्तया निर्मिता शुभा ।
 कुरङ्गुलरत्नविस्तारा छागचूर्णमिवेष्टिता ॥
 काजिरोमाम्बरानद्धतला चालनिका परा ।
 तथा प्रचालनं कुर्याद्धर्तुं सूक्ष्मतरं रजः ॥

The first kind, meant for sifting coarse things, is made of bamboo sticks and threads. The second kind, meant for sifting powders, is also made of bamboo. The third kind, meant for the sifting of finer powders, consists of a circular cylindrical edge, made of wood or bamboo, one aratni in height, and a surface made of horse hair or a piece of cloth.

मूषामृत्तुषकापासवनोपलकपिष्टकः ।

त्रिविधं भेषजं धातुजीवमूलमयं तथा ॥

शिल्पिन्ना • गोव्वरं † चैव शर्करा च सितोपला ।
 काचायोमृद्वराटानां कूपिका ‡ चषकाणि च ॥
 शूर्पादि वेणुपात्राणि चूद्राः क्षिप्राश्चशङ्किकाः ।
 चुरप्राश्च तथा पाक्यो यच्चान्यत्तत्र युज्यते ॥
 प्रालिका कर्णिका चैव शाकच्छेदन शस्त्रकाः ।
 शालासम्मार्जनाद्यं हि रसपाकान्तकर्म यत् ॥
 तत्रोपयोगि यच्चान्यत् तत् सर्वं परविद्यया ।
 श्रीरसाङ्कुश्या सर्वं मन्त्रयित्वा समाचरेत् ॥
 अन्यथा तद्गतं तेजः परिगृह्णन्ति भैरवाः ॥

Crucibles ; mud ; husk ; cotton , cakes made of cowdung ; three kinds of medicines, *viz.* of metals, animals, and plants ; fuel made of burnt wood and leaves (*tikias*) ; cow-dung ; sugar ; sugar-candy ; jars and bowls made of glass, iron, mud and cowri ; *winnowing plate* ; and other utensils made of bamboo , all sorts of cutlery for chopping vegetables (perhaps *kshudra* is what in Bengal is called a *khunti* ; *kshipra* is perhaps forceps ; *sankika* may be an iron rod for

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- शिल्पिन्ना पाककोच्छिष्टा अङ्गाराः कोकिला मताः ।
 कोकिलाश्चेति चाङ्गारा निर्घ्राणाः पयसा विना ॥
 † पिष्टकं छगणं छगणमुपलं चोत्पलन्तथा ।
 गिरिण्डोपलशठी च संशुष्कछगणामिधा ॥
 ‡ कूपिका कुपिका सिद्धा गोला चैव गिरिपिडका ।
 चषकञ्च कटोरी च घाटिका क्षारिका तथा ।
 कञ्जोली ग्राहिका चेति नामान्येकार्थकानि हि ॥

probing the condition of a metallic compound, while it is still on fire, *kshurapra* is perhaps an iron spoon ; *pakya* is a ladle ; *palika* is a small dagger ; and *karnika* is what in Bengal is called a *kurni*),—these and all other articles necessary from the sweeping of the laboratory to the termination of a metallurgical operation are to be purified by the supreme mantram referred to before, otherwise Bhairavas (terrible spirits) might take away the inherent potencies of all these things.

रससञ्चिन्तका वैद्या निघण्टुज्ञाश्च वार्त्तिकाः ।
 सर्वदेशजभाषाज्ञाः संग्राह्यास्तेऽपि साधकैः ॥
 सोद्यमाः शुचयः शूरा बलिष्ठाः परिचारकाः ।
 रसपाकावसानान्तं सदाघोरञ्च जापयेत् ॥
 धर्मिष्ठः सत्यवाग् विद्वान् शिवकेशवपूजकः ।
 सदयः पद्महस्तश्च स योज्यो रससाधने ॥
 पताकाकुम्भपाथोजमत्स्यचापाङ्गपाणिकः ।
 अनामाधःस्थरेखाङ्कः स स्यादमृतहस्तवान् ॥
 अदौष्टिकः कृपामुक्तो लुब्धो गुरुविवर्जितः ।
 कृष्णरेखाकरो वैद्यो दग्धहस्तो विवर्जितः ॥

Those who are engaged in metallurgical operations should secure the services of those physicians who are well-versed in the science, in lexicography, and in the commentaries of the difficult books on the subject ; and of those attendants who are persevering and are neat and clean, courageous and strong. The

Aghora mantram is to be frequently chanted all the time a mercurial operation is carried on.

For the purpose of performance of metallurgical operations, one should engage a chemist of the following description :—pious, truthful, learned, worshipper of Shiva and Keshava (personifications of the two different aspects of the same God), kind-hearted, and having the following marks on the palm :—flag, vessel, lotus, fish, bow, and a line just below the ring-finger (*i.e.*, on the mount of sun). Such a chemist is called nectar-palmed. A chemist who is unfortunate, cruel, greedy, uninitiated, and has black spots on his palm is called burnt-palmed, and should therefore be avoided in metallurgical operations.

शुचीनां सत्यवाक्यानामास्तिकानां मनस्विनाम् ।

सन्देहोज्झितचित्तानां रसः सिध्यति सर्वदा ॥

दशाष्टक्रियया सिद्धे रसेऽसौ साधकोत्तमः ।

रससिद्धो भवेन् मर्त्यो दाता भोक्ता न याचकः ॥

जरामुक्तो जगत्पूज्यो दिव्यकान्तिः सदा सुखी ॥

Invariably successful are the metallurgical operations carried on by those who are pure in body and mind, are truthful, believers in God, learned, and full of optimism. That man is the greatest of all metallurgical operators who succeeds in performing all the eighteen different operations with mercury. He is a giver and enjoyer, not a dependant on any one. He is free from physical decay due to old age, is respected by the whole world, looks handsome, and is always happy.

द्वितीयोऽध्यायः ।

अथ शिष्योपनयनम् ।

रसविद्या शिवेनोक्ता दातव्या साधकाय वै ।
यथोक्तेन विधानेन गुरुणा मुदितात्मना ॥
सुमुहूर्त्ते सुनक्षत्रे चन्द्रताराबलान्विते ।
कलशं तोयसंपूर्णं हेमरत्नफलैर्युतम् ॥
स्थापयेद् रसलिङ्गार्थे दिव्यवस्त्रेण वेष्टितम् ।
गन्धपुष्पाक्षतैर्धूपैर्नैवेद्यं च सुपूजयेत् ॥
पूजान्ते हवनं कुर्याद् योनिकुण्डे सुलक्षणे ।
तिलाज्यैः पायसैः पुष्पैः शतपुष्पादिकैः पृथक् ॥
अघोरेण रसाङ्कुश्या होमान्ते शिष्यमाह्वयेत् ।

CHAPTER II.

Initiation of Disciple.

Metallurgy is a science which was taught by S'iva (God) himself. It is to be given to an earnest disciple by the preceptor in accordance with the usual procedure. In an auspicious moment, when the moon is in conjunction with a benefic star, and when both the moon and the star are strong, * an earthen vessel full of water, and containing gold, gems, and fruits, is to be placed in front of the Rasalingam,

* For a proper understanding of these, the reader is referred to Indian Astrology.

and covered with a piece of cloth. The image is then to be worshipped in the usual way with sandal paste, flowers, fried paddy, incense, and offerings of rice, fruits, sweets &c. After the worship is over, a sacrificial fire is to be made in a triangular hole, called Joni Kunda, characterised by good features, where offerings are to be duly given of oil, clarified butter, rice boiled in milk and mixed with sugar, flowers in general, and lotuses in particular, respectively, uttering all the while the Aghora and Rasankus'i mantras. This being done, the disciple is to be called to attend.

अथ कालिनी स्त्री ।

यस्यास्तु कुञ्चिताः केशाः श्यामा या पद्मलोचना ।
 सुरूपा तरुणी भिन्ना विस्तीर्णजघना शुभा ॥
 संकीर्णहृदया पीनस्तनभरेण संनता ।
 चुम्बनालिङ्गनस्पर्शकोमला मृदुभाषिणी ॥
 अश्वत्थपत्रसदृशयोनिदेशसुशोभिता ।
 कृष्णापक्षे पुष्पवती सा नारी कालिनी स्मृता ॥
 कालिनी शक्तिसंयुक्ता रससिद्धिपरायणा ।
 रसबन्धे प्रयोगे च सोत्तमा हि रसायने ॥
 तदभावे सुरूपा तु या काचिद्भ्रवरणिनी ।
 तस्यै देयं त्रिसप्ताहं गन्धकं घृतसंयुतम् ।
 कषैकैकं प्रभाते तु सा भवेत् कालिनीसमा ॥

A Kalini wife.

That wife is called Kalini whose hair is curled; whose body is warm in winter, and comfortably cold

in summer ; who has a complexion as bright as heated gold ; whose eyes are like lotus flowers ; who is beautiful, young, and has a well-cut physique ; whose thighs are wide ; who is possessed of all good qualities ; who has breasts so well-developed as to give her stature a slight stoop ; whose kiss, embrace and touch are soft ; whose voice is very mild ; whose genital organ is so developed as to give it the configuration of an Aswatha leaf, and who commences her menstruation during the period when the moon is on the wane. Such a lady is powerful, and is capable of success in metallurgical operations. She is efficient in preparing mercurial compounds, in the application of mercury to patients, and in the preparation of medicines for the prevention of premature old age and diseases. In case, such a wife is not available, any beautiful lady may serve the purpose, if she is required for three weeks only, to take every morning one tola of purified sulphur, mixed with clarified butter.*

एवं शक्तियुतः शिष्यं दीक्षयेत् तं गुरुत्तमः ।
 सुस्नातमभिषिञ्चेत् मन्त्रेण कलशोदकैः ॥
 अघोरामङ्गुशीं विद्यां दद्याच्छिष्याय सद्गुरुः ।
 यथाशक्ति सुशिष्येण दातव्या गुरुदक्षिणा ॥
 अथाज्ञया गुरोर्मन्त्रं लक्षं लक्षं पृथक् जपेत् ।

* This dose was prescribed more than 5000 years ago. The present day human beings can stand only one fourth to half of the dose prescribed in those days.

ओं हां हीं हं अघोरतर प्रस्फुट प्रस्फुट प्रकट
प्रकट कह कह शमय शमय जात जात दह दह
पातय पातय ।

ओं हीं हौं हौं हं अघोराय फट्—
इममघोरमन्त्रन्तु । ओं कामराजशक्तिबीज रसाङ्कु-
शायै आज्ञायै विद्यां रसाङ्कुशाम् ॥

अनया पूजयेद्देवीमिमामङ्कुशविद्यकाम् ।

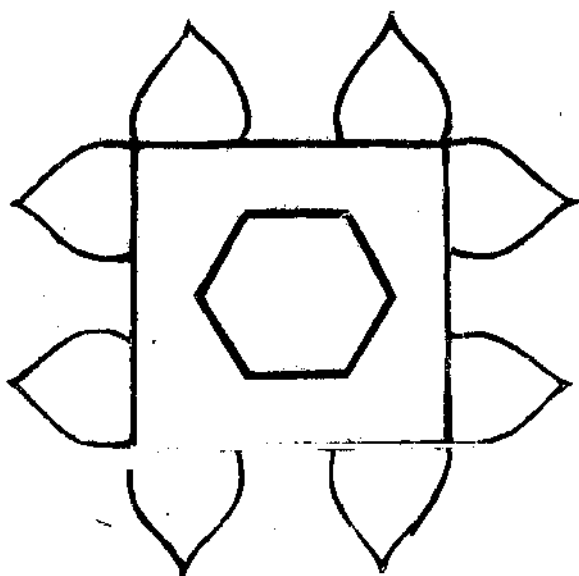
दशांशेन हुनेत् कुण्डे त्रिकोणे हस्तमात्रके ॥

जातिपुष्पं त्रिमध्वक्तं पूर्णान्ते कन्यकाचर्चनम् ॥

Thus strengthened, the efficient preceptor will initiate the disciple after the latter has bathed well, and sprinkle the water of the vessel upon him with proper chantings, and will then impart to him the sublime science of controlling mercury. The disciple should pay to the preceptor a fee according to his ability. The disciple is then to recite, under orders of his preceptor, for a hundred thousand times, each of the two hymns *viz.* Aghora and Rasankus'i as given in the text. Thus is to be worshipped the goddess, Ankus'avidya (the science of controlling mercury personified, the same as the goddess of beauty referred to above). Then a fire is to be raised and given offerings of *Jati* flowers, mixed with honey, clarified butter, and sugar in a triangular pit, having each of its sides one cubit long. After the last and fullest offering is made to the sacrificial fire, one or more virgins are to be worshipped.

पूजान्ते वेदिकापार्श्वे शुद्धे धौते च मण्डपे ।
 षट्कोणं मण्डलं कार्थ्यं सिन्दूरेण द्विहस्तकम् ॥
 यत्नतः लिख्यते सम्यक् तद्बहिश्चाष्टपत्रकम् ।
 कमलं चतुरस्रञ्च चतुर्द्वारैः सुशोभितम् ॥ ❀

The next thing to be done is to draw, with red vermilion, a hexagonal diagram, two cubits long on



the Rasamandapam, by the side of which is to be drawn carefully a quadrangular and eight petalled lotus furnished with four door-ways. (*Vide* figure given here).

कर्णिकायां न्यसेत् खल्वं लौहजं स्वर्णलेखितम् ।
 तन्मध्ये रसराजं तु पलानां शतमात्रकम् ॥
 पञ्चाशत् पञ्चविंशद् वा पूजयेद् रसलिङ्गवत् ।
 वज्रवैक्रान्तवज्राभ्रकान्तपाषाणटंकणम् ॥
 भूनागं शक्तयश्चैताः षट्पत्रे पूजयेत् क्रमात् ।
 गन्धतालककासीसशिलाकङ्कुष्ठमूषणम् ॥
 राजावर्त्ता गैरिकञ्च ख्याता उपरसा अमी ।
 सम्पूज्या चाष्टमे दले पूर्वादीनां दिशां क्रमात् ॥
 रसकं विमला ताप्यं चपला तुत्थमञ्जनम् ।
 हिङ्गुलं सस्यकश्चैव ख्याता उपरसाः इमे ॥
 पूर्वादीशानपर्यन्तं पत्राग्रेषु प्रपूजयेत् ।
 पूर्वद्वारे स्वर्णरूप्ये दक्षिणे ताम्रसीसके ॥
 पश्चिमे वङ्गकान्तौ च मुण्डतीक्ष्णौ तथोत्तरे ।
 सर्वमेतदधोरेण रसाङ्कुशेन चार्चयेत् ॥

In one of the eight petals should be placed an iron *khatwa* (boat-shaped mortar), mounted with gold, containing 100, 50 or 25 *palas* of mercury, which is to be worshipped like the Rasalingam. In six of the other petals of the lotus are to be placed diamonds, gems, mica, loadstone, borax and essence of earthworms, respectively, each of these potentialities being worshipped separately. Gandhaka (sulphur), Harital (orpiment), Kasisa (green vitriol), silājatu (bitumen), kankustham, gems, rajabarta, gairika (red ochre)—these important

uparasas (quasi-mercuries) are to be placed on the eighth petal, in the order of east to north-east, and worshipped in order of position. Rasak (calamine), bimala, tapya (pyrites), chapalam, tuttha (blue vitriol), anjana (stibnite), hingula (cinnabar), and sasyaka (a kind of vitriol)—all these uparasas are also to be placed at the edge of the eight petals and worshipped from the east to the north east. Gold and silver are to be placed on the eastern door, copper and lead on the southern door, tin and kanta iron on the western door, and Munda (common iron) and tiksna iron (steel), on the northern door, and all of these are to be worshipped by means of the Aghora and Rasankusa hymns.

विडः काञ्जिकयन्त्राणि चारमृल्लवणानि च ।

कोष्ठिमूषावक्रनाली तुषाङ्गारवनोत्पलाः ॥

भद्रिका दंशिकानेका शिलाखल्वान्युदूखलम् ।

स्वर्णकारोपकरणम् समस्ततुलनानि च ॥

मृत्काष्ठताम्रलौहोत्थपात्राणि विविधानि च ।

दिव्यौषधीनां वर्गाश्च रज्जुकल्लेहनानि च ॥

एतानि द्वारबाह्ये तु मूलमन्त्रेण पूजयेत् ।

ओं वाङ् मयीं ह्रीं ततः चं च दमश्च पञ्चाक्षरो मनुः ॥

अनेन मूलमन्त्रेण भैरवं तत्र पूजयेत् ॥

Vida, Kanji, apparata, alkalis, mud, salts, furnace, crucible, bent tube, husk of paddy, char coal, cowdung

cakes, bellows, several tongs, stone mortars, iron mortars, equipments of goldsmiths, balances and weights, all sorts of vessels and pots made of mud, wood, copper, iron, good medical ingredients, colouring oils ;—all these are to be worshipped outside the four doors of the lotus diagram, with the mantram referred to above. By the mantram given here (see text) the Bhairaba (S'iva) is also to be worshipped.

सम्यक् साधनसोद्यमा गुरुयुता राजाज्ञयालङ्कृताः ।
 नानाकर्मपराङ्मुखा रसपराश्चाढ्या जनैश्चार्थिताः ॥
 मात्रायन्त्रसुपाककर्मकुशलाः सर्वौषधे कोविदा-
 स्तेषां सिध्यति नान्यथा विधिवत्ताच्छ्रीपारदः पारदः ॥

Mercurial operations prove successful by the grace of God, if carried on by those who are persevering in every way ; who are instructed by preceptors ; who are patronised by kings ; who avoid the following of too many pursuits ; who regard mercury as the greatest of all earthly objects ; who are rich ; who are encouraged by the public ; who are efficient in the knowledge of doses, apparata, and proper heating of the metals ; and who are acquainted with all sorts of medicines.

रसविद्या हृदं गोप्या शिष्येतराज्जनाद् भ्रुवम् ।
 भवेद् वीर्यवती गुप्ता निर्वीर्या च प्रकाशनात् ॥
 न रोगिविदितं कार्यं बहुभिर्विदितं तथा ।
 रोगिभि बहुभिर्ज्ञातं भवेद् निर्वीर्यमौषधम् ॥

The knowledge of Metallurgy is to be kept secret from those who are not disciples. It becomes powerful, if cultivated in secret ; other wise, it loses much of its strength. The preparation and composition of a medicine should not be taught to a patient or to the public in general. A medicine which is very familiar to a patient and to the public becomes ineffective.

गुरौ तुष्टे शिवस्तुष्येच्छिवे तुष्टे रसस्तथा ।

रसे तुष्टे क्रियाः सर्वत्राः सिध्यन्त्येव न संशयः ॥

If the preceptor is pleased, S'iva is pleased, if S'iva is pleased, Rasa (mercury) is pleased, and if Rasa is pleased, all metallurgical operations become undoubtedly successful.

तृतीयोऽध्यायः ।

अथ रसप्रसङ्गः ।

(१) तत्रादौ गुणवर्णनम् ।

पारदो रसराजश्च रसेन्द्रश्च महारसः ।
जीवश्च शिववीर्य्यश्च रसः सूतः शिवाह्वयः ॥
पारदो षड्रसः स्निग्धस्त्रिदोषघ्नो रसायनः ।
योगवाही महावृष्यः सदा दृष्टिबलप्रदः ॥
सर्वामयहरः प्रोक्तो विशेषात् सर्वकुष्ठनुत् ।
हतोहन्ति जरां मृत्युं मूर्च्छितो व्याधिघातकः ॥
बद्धः खेचरतां दत्ते कोऽन्यः सूतात् कृपाकरः ।
मोहयेद् यः परान् बद्धो जीवयेच्च मृतः परान् ।
मूर्च्छितो बोधयेदन्यान् तं सूतं को न सेवते ॥
आयुर्द्रविणमारोग्यं वह्निर्मेधा महद्बलं ।
रूपयौवनलावण्यं रसोपासनया भवेत् ॥
मारयेजारितं सूतं गन्धकेनैव मूर्च्छयेत् ।
बद्धः स्याद् द्रुतिसत्ताभ्यां रसस्यैवं त्रिधा गतिः ॥
दोषहीनो रसो ब्रह्मा मूर्च्छितस्तु जनाई नः ।
मारितो रुद्ररूपः स्याद् बद्धः साक्षान्महेश्वरः ॥
श्रीमान् सूतनृपो ददाति विपुलां लक्ष्मीं वपुः

शाश्वतं

स्वानां प्रीतिकरमचञ्चलमनो मातेव पुंसामिह ।
 नान्यो नास्ति शरीरनाशकगदप्रध्वंसकारी ततः
 कार्यं नित्यमहोत्सवैः प्रथमतः सूताद् वपुः
 साधनम् ॥

CHAPTER III.

Parada (Mercury).

The following are the synonyms of Parada (mercury) : Rasaraja, Rasendra, Maharasa, Jiba, Sivabirjam, Rasa, Suta, and all the names applicable to Siva (God) himself.

Parada has six different kinds of taste, (*viz.*, sweet, sour, saline, pungent, bitter and astringent). It has a soothing effect upon the human system, and is the destroyer of the three different kinds of doshas (faults)*. It is efficacious in preventing disease and arrival of premature old age, and serves to heighten the medicinal properties of anything with which it is compounded. It nourishes all the vital parts of the body and always increases the strength of the eyes. It cures all sorts of diseases and especially leprosy†.

Parada when itself killed (*i.e.*, reduced to bhasma or ash), becomes a killer of diseases and death ; it kills diseases, when itself in a state of swoon (*i.e.*,

* Diseases are due to an abnormal excess of one or more of the three doshas, *viz.*, वायुः, (vayu or air), पित्तम् (pittam, *i.e.*, the internal heat of the body), and कफः (kafa or phlegm.)

† All these refer to the properties of mercury, as purified according to the processes given here-in-after.

transformed by combination with purified sulphur etc.) It gives a human being the power of flying in the space (like a bird,) if itself tied down (*i.e.*, solidified by conjunction with some special substances). Who else is so kind as mercury? Is there any one who does not serve that mercury which, when entangled or solidified, causes wonder in others; which resuscitates the dead, when dead itself, and which causes the dawn of consciousness in others, when itself in a state of swoon or unconsciousness? By the worship of mercury are to be obtained longevity, riches, health, power of digestion, power of retention, great strength, beauty, youth, and graceful appearance. Mercury is to be killed (reduced to ash), after being exhausted, to be brought to a state of unconsciousness by being mixed with sulphur, and is to be tied down or solidified by being heated and combined with the essences of particular metals—these are the three different courses of mercury.

Mercury is compared to Brahma, when it is in a state of purification; to Bisnu, when it is in a state of swoon; to Rudra, when it is dead; and to Maheswara, when it is in a state of solidification.* Mercury gives vast wealth, firm physique pleasing to one's own people, and stable mind—things which are generally given in this world by one's mother. No one else is a better destroyer of diseases which affect our bodies. It is therefore necessary, first of all, to

* Mahes'wara (or S'iva) the universal Being, manifests Himself in three different aspects personified; *viz.*, Brahma (the creator), Vishnu (the preserver), and Rudra (the destroyer of the universe).

strengthen our bodies in right earnest with mercury every day.]

भक्षणं स्पर्शनं दानं ध्यानञ्च परिपूजनम् ।

पञ्चधा रसपूजोक्ता महापातकनाशिनी ॥

अभ्रकं तृटिमात्रं * यो रसेन परिजारयेत् ।

शतक्रतुफलं तस्य भवेदित्यब्रवीच्छिवः ॥

यश्च निन्दति सूतेन्द्रं शम्भोस्तेजः परात्परम् ।

स पतेद्भरके घोरे यावत् कल्पविकल्पना ॥

रोगिभ्यो यो रसं दत्ते शुद्धिपाकसमन्वितम् ।

तुलादानाश्रमेधानां फलं प्राप्नोति शाश्वतम् ॥

उदरे संस्थिते सूते यस्योत्क्रामति जीवितम् ।

स मुक्तो दुष्कृताद् घोरात् प्रयाति परमं पदम् ॥

मुक्तेः परतरं न हि सा हि ज्ञानेन लभ्यते ।

द्वावेव ज्ञानयोगो हि जगाद् परमः शिवः ॥

प्राणाणां वा निरोधश्च वासनानोदनञ्च वा ।

द्वयमेतन्नलब्धव्यं सुस्थिराच्छरीरादृते ॥

रसश्च पवनश्चेति देहपौ जानीयाद् ध्रुवम् ।

मूर्च्छितो हरते व्याधिं जीवयति रसो मृतः ॥

वद्धः खेचरतां दत्ते रसो वायुश्च नान्यथा ॥

इह धनशरीर भोगान् मत्त्वाऽनित्यान् सदैव

यतनीयम् ।

* टटिः सादृशभिः षडभिः ।

मुक्तौ सा च ज्ञानात् तच्चाभ्यासात् स च स्थिरदेहे ॥
 तत् स्थैर्येण समर्थं रसायनं किमपि मूललोहादि ।
 स्वयमस्थिरस्वभावं दाह्यं क्लृप्तं च शोष्यं च ॥
 काष्ठौषध्यो नागे नागो बद्धेऽथ बद्धमपि शुल्बे ।
 शुल्बं तारे तारं कनके कनकश्च लीयते सूते ॥
 अमृतत्वं हि भजन्ते हरमूर्त्तौ योगिनो यथा लीनाः ।
 तद्वत् कवलितगगने रसराजे हेमलोहाद्याः ॥
 परमात्मनीव सततं भवति लयो यत्र सर्व्वसत्त्वानां ।
 एकोऽसौ रसराजः शरीरमजरामरं कुरुते ॥

Eating, touching, giving, meditating upon, and adoring of mercury are the five different ways of worshipping it—all of which tend to destroy great vices. The man who succeeds in subsuming in mercury even the minutest particle of mica, acquires the merits arising from performing one hundred sacrifices. This is what Siva himself said. The man who vilifies mercury, which is the strength of Siva himself, and is the greatest of all great things, rests in hell eternally. The man who gives to patients mercury, duly purified and duly prepared over the fire, attains for ever the merits derived from the performance of Tuladana (a ceremony in which the performer gives away to the poor his own weight in gold) and Aswamedha (a ceremony in which a horse is worshipped and sacrificed). The man who dies with mercury still in his stomach is freed from great sins, and attains emancipation.

There is nothing greater in this world than emancipation of the soul, which is obtainable by means of wisdom. The great Siva said that there are two ways of attaining wisdom, *viz.*, stopping of respiration (as practised by the Jogis), and extinction of the passions. Neither of these can be attained without a strong and healthy physique. Now, mercury and air are the two things which can sustain the body. Mercury, in a state of swoon removes diseases, and, when dead, sustains the body in a healthy condition. Both air and mercury, if bound and rendered incapable of movement, render the body light enough to move in the atmosphere*. It cannot be otherwise. Enjoyment in this world of wealth and physical comforts is to be considered transient; emancipation of soul is therefore always to be aimed at. But emancipation depends upon knowledge which is the result of concentration of mind, this last depending upon a firm physique. Firmness of the body cannot be properly attained by any elixir made of vegetables and metals (except mercury). Being itself of an unstable nature, combustible, and liable to decomposition and shrinkage, a vegetable drug is subsumed in lead; Lead is similarly subsumed in tin, and so also tin in copper, copper in silver, silver in gold, and gold in mercury. As the souls of Jogis are translated into the being of Siva and thereby attain immortality, so are the metals

* The ability of expert Jogis to walk upon the surface of water and to ascend the atmosphere is traditional in this country. Such miracles are reported to have been worked even in our own time.

subsumed in the mercury which has already swallowed some mica. As the extinction of every being always takes place in the universal Soul, so the extinction of every material substance takes place in mercury. Mercury alone is therefore competent to free the body from infirmity and disease.

अथ रसस्य प्रकारभेदः ।

रसो रसेन्द्रः सूतश्च पारदो मिश्रकस्तथा ।
 इति पञ्चविधो जातः क्षेत्रभेदेन शम्भुजः ॥
 रसो रक्तो विनिर्मुक्तः सर्वदोषै रसायनः ।
 संजातास्त्रिदशास्तेन नीरुजा निर्जरामराः ॥
 रसेन्द्रो दोषनिर्मुक्तः श्यावो रुद्धोऽतिचञ्चलः ।
 रसायिनोऽभवंस्तेन नागा मृत्युजरोज्ज्विताः ॥
 तयोः कूपौ पुरा देवैः परितौ मृद्भिरश्मभिः ।
 तदा प्रभृति लोकानां तौ जातावतिदुर्लभौ ॥
 ईषत् पीतश्च रुद्धाङ्गो दोषयुक्तश्च सूतकः ।
 दशाष्टसंस्कृतैः सिद्धो देहं लौहं करोति सः ॥
 अथान्यविधको दोषी चञ्चलः श्वेतवर्णवान् ।
 पारदो विविधैर्योगैः सर्वरोगहरः स हि ॥
 मयूरचन्द्रिकाच्छायः स रसो मिश्रको मतः ।
 सोऽप्यष्टादशसंस्कारयुक्तश्चातीव सिद्धिदः ॥

Different kinds of Mercury.

Owing to the difference in nature of the soil of deposit, mercury is of five different kinds, *viz.*, Rasa,

Rasendra, Suta, Parada, and Mishraka. Of these Rasa is red, free from all harm, and is the destroyer of senility and diseases. By taking it the inhabitants of Swarga became free from infirmity and early death. Rasendra is free from defects ; is black, coarse, and very subtle. By the use of this mercury, the Naga people (perhaps the inhabitants of the Himalayas of old), came to be free from old age and diseases. Mines of these two kinds of mercury were therefore filled in by the gods with mud and stone. Thenceforward, these two kinds of mercury have been very rare in the earth. Sutaka is a little yellow, coarse, full of some evil properties, but, if subjected to the eighteen different methods of purification, it makes the body as hard as steel. Another kind of mercury, named Parada, is full of many evil properties, is subtle and white, but, by various processes, may be rendered a panacea. The fifth kind of mercury, named Mishraka, has the complexion of a peacock's feather, and becomes very efficacious, if subjected to the eighteen different methods of purification.

अथान्यविधः ।

क्षेत्रभेदेन विज्ञेयं शिववीर्यं चतुर्विधम् ।

श्वेतं रक्तं तथा पीतं कृष्णं तत्तु भवेत् क्रमात् ॥

श्वेतं शस्तं रुजां नाशे रक्तं किल रसायने ।

धातुवादे तु तत् पीतं खेगतौ कृष्णमेव च ।

Owing to the difference in nature of the soil of deposit, mercury may assume four different colours viz., white, red, yellow, and black. Preference is to be

given to the white in the matter of curing of diseases ; to the red in the matter of removal of senility and prevention of diseases ; to the yellow, in the matter of transformation and incineration of metals ; and to the black, in the matter of attainment of power to move in the air.

अथ रसादीनां व्युत्पत्तिः ।

रसनात् सर्वधातूनां रस इत्यभिधीयते ।

जरारुद्धमृत्युनाशाय रस्यते वा रसो मतः ॥

सकलौषधराजत्वाद् रसेन्द्र इति कीर्तितः ।

देहलौहमयीं सिद्धिं सूते सूतस्ततः स्मृतः ॥

रोगपङ्काब्धिमग्नानां पारदानाच्च पारदः ।

जीवयति जीवान् सर्वान् तेन जीवः प्रकीर्तितः ॥

सर्वधातुगतं तेजो मिश्रितं यत्र तिष्ठति ।

तस्मात् स मिश्रकः प्रोक्तो नानारूपफलप्रदः ॥

*Etymological significance of the different names
of Mercury.*

The name, Rasa (from root 'ras' = to eat), is due to the fact that mercury can swallow every metal, or that mercury is eaten by men with a view to being cured of all diseases. The name Rasendra (from Rasa + Indra; a king) is due to the fact that mercury is the king of all medicines. The name, Suta (from 'su' = to give rise to), is due to the fact that mercury is competent to make the body as strong as steel. The name, 'Parada' (from para = end + da = to give)

is due to the fact that mercury causes an end of the suffering of those men who are immersed in the muddy sea of diseases. The name, Jiva (from root, jiv = to live), is due to the fact that mercury helps human beings to live : The name, Mishraka (from mishra = mixed), is due to the fact that the properties of all the metals are found combined in Mercury.

चतुर्थोऽध्यायः ।

अथ पारदप्रसङ्गः ।

पारदस्य नैसर्गाः दोषाः ।

नागो वङ्गो मलो वह्निश्चाञ्चल्यञ्च विषं गिरिः ।
असह्याग्निर्महादोषा नैसर्गाः पारदे स्थिताः ॥
ब्रह्मं कुष्ठं तथा मूर्च्छा दाहं वीर्यस्य नाशनम् ।
मरणं जड़तां स्फोटं कुर्वन्त्येते क्रमान् नृणाम् ॥

CHAPTER IV.

Natural blemishes of Mercury.

The following are the natural defects of mercury :—(1) evil properties of lead, (2) evil properties of tin, (3) impurities due to the existence of foreign matters, (4) evil properties of fire (5) subtleness, (6) evil properties of poison, (7) evil properties of stone, and (8) inability to stand the heat of fire.

These blemishes give rise to the following ailments in one who takes impure mercury ;—(1) carbuncles, (2) leprosy, (3) swoon, (4) inflammation, (5) loss of vigour, (6) death, (7) inertness, and (8) eruptions, respectively.

अथ पारदस्य औपाधिका दोषाः ।

भूमिजा गिरिजा वार्जा दोषा औपोधिका स्मृताः ।
ते सर्वे सप्तसंख्यकाः कीर्तिताः सप्तकञ्चुकाः ॥

पर्यटी पाटली भेदी द्रावी मलकरी तथा ।
 अन्धकरी तथा ध्वाङ्क्षी दोषार्चैते भयावहाः ॥
 भूमिजा कुर्वते कुष्ठं गिरिजा जाड्यमेव च ।
 वारिजा वातसंघातं दोषाढ्यं नागवङ्गयोः ॥
 तस्माद् रसस्य संशुद्धिं विदध्याद् भिषजां वरः ।
 शुद्धोऽयममृतः साक्षाद् दोषयुक्तो रसो विषम् ॥

Blemishes of Mercury due to its environment.

Mercury acquires three kinds of blemishes by coming in contact with soil, rock, and water. They are therefore due to its environment. They are seven in number, and are called the seven coverings of mercury, *viz.*, (1) parpati (causing roughness of the skin), (2) patali (causing ruptures in the flesh), (3) bhedi (causing holes in the body), (4) drāvi (causing decomposition of the body), (5) mālakari (causing an increase in the three doshas, *viz.* air, heat, and phlegm), (6) andhakari (causing blindness), and (7) dhwankhshi (causing darkness of the skin).

To sum up, the blemish due to contact with soil gives rise to inertness, and that due to contact with water gives rise to a derangement of air in the system, heightened by all the consequences of the first two natural blemishes, *viz.*, those characteristic of lead and tin.

The expert physician should therefore arrange for the purification of mercury, which, when purified, becomes nectar itself. Whereas in its impure condition, it is no better than poison.

अथ शोधितपारदस्य बाह्याकृतिः ।

अन्तः सुनीलो बहिरुज्ज्वलो यो मध्याह्न-

सूर्य्यप्रतिमप्रकाशः ।

शस्तोऽथ धूम्रः परिपाण्डरश्च चित्रो न योज्यो

रसः कर्म्मसिद्धौ ॥

Appearance of purified Mercury.

The mercury which is deep blue inside, and is as bright as the mid-day sun outside, is to be considered commendable, (on account of its having been duly purified), whereas that which is smoky, yellowish, and multi-coloured is not to be made use of in the preparation of medicines (unless, of course, it is properly purified).

अथ रसस्याष्टादश संस्काराः ।

शोधनं स्वेदनञ्चैव मर्दनमुद्धृति * स्तथा ।

पातनं रोधनञ्चैव नियामनमतः परम् ॥

दीपनमनुवासनं ग्रासनमपि मूर्च्छणम् ।

सञ्चारणान्तथा गर्भद्रुति जारणमारणौ ॥

भस्मीकरणमेवञ्च रञ्जनं वेधनं तथा ।

अष्टादश रसस्यैते संस्काराः ज्ञायते बुधैः ॥

स्वेदनाद्यष्टसंस्कारान् शोधनान्ते भजेत् सुधीः ।

नहि शस्तो रसः शुद्ध एतत्कर्म्मसिद्धकं विना ॥

* उत्थापनमित्यस्य नामान्तरम् ।

विशिष्यते तु हिंगुलाकृष्टो रसो यथाविधि ।
विना कर्माष्टकेनैव योज्योऽयं सर्वकर्मणि ॥

Eighteen different kinds of Mercurial operations.

Shodhanam (purification), (2) swedanam (boiling), (3) mardanam (rubbing), (4) uddhriti, or utthapanam (raising or installation), (5) patanam (sublimation), (6) rodhanam (confinement), (7) niyamanam (restraint), (8) dipanam (stimulation), (9) anubasanam (rehabilitation), (10) grasanam (swallowing of metals), (11) murchhanam (swoon), (12) sancharanam (movement), (13) garbhadruti (internal liquefaction), (14) yaranam (exhaustion), (15) maranam (killing), (16) bhasmikiranam (reduction to ashes or incineration), (17) ranjanam or dyeing, and (18) bedhanam (transforming base metals into gold).

The eight operations commencing with boiling should be resorted to as soon as the process of purification is finished. The use of mercury, though purified, is not commendable, unless it is subjected to these eight kinds of operations.

There is an exception to this rule in favour of mercury, extracted in the prescribed manner from hingula (cinnabar). This mercury is applicable for all medicinal purposes, without being subjected to those eight kinds of operations.

(१) अथ रसशोधनम् ।

रसोऽग्राह्यः सुनक्षत्रे पलानां शतमात्रकम् ।

पञ्चाशत् पञ्चविंशति द्वादश वैकमेव वा ॥

पलादूनं न कर्त्तव्यं रससंस्कारमुत्तमम् ।
अघोरेण च मन्त्रेण रससंस्कारपूजनम् ॥

(1) *Purification of Mercury.*

At a time when the moon is in combination with an auspicious star, purification is to be commenced with mercury, weighing 100, 50, 12, or 1 palam *. A lesser quantity than one palam is not suitable for proper purification. Every mercurial operation (including purification) and worship of mercury are to be performed with the Aghora mantram.

अथात्र मर्दनस्य साधारणविधिः ।

संस्कारे रसराजस्य मर्दनस्य यदा विधिः ।
प्रत्येकं प्रत्यहं दत्त्वा सप्तवारं विमर्दयेत् ॥
विशेषविधानाभावात् प्रत्येकस्य विचूर्णकैः ।
रसस्य षोडशांशैश्च मर्दयेत्तु पृथक् पृथक् ॥

General rule for the rubbing of Mercury.

In the matter of mercurial operations, wherever there is a mention of a thing being rubbed with mercury, in the absence of special instructions, the latter is to be rubbed seven times a day, with each of the articles finely powdered, the quantity of the prescribed article, taken afresh each time, being one sixteenth in weight of the mercury.

* One palam is equal to 4 rupees in weight. For measures of metallurgical weight, see page 310.

अथ प्रथमः शोधनविधिः ।

सोर्णैर्निशेष्टकाधूमजम्बीराम्बुभिरादिनम् ।
 महिं तस्तप्तखल्वे तु नागदोषं रसस्त्यजेत् ॥
 विशालाङ्कोठचूर्णेन वङ्गदोषं विमुञ्चति ।
 राजवृक्षो मलं हन्ति चित्रको वह्निदूषणम् ॥
 चाञ्चल्यं कृष्णधुस्तूरं त्रिफला विषनाशिनी ।
 कटुत्रयं गिरिं हन्ति चासह्याग्निं त्रिकण्टकः ॥
 प्रतिवारं कलांशेन तत्तच्चूर्णं सकन्यकम् ।
 सुवस्त्रगालितं सूतं खल्वे क्षिप्त्वा यथाक्रमम् ॥
 सर्वाणि मिलितानि च दिवारात्रं विमर्दयेत् ॥
 उद्धृत्योष्णारणालेन मृत्पात्रे चालयेत् सुधीः ।
 एवं संशोधितः सूतः सप्तकञ्चुकवर्जितः ॥
 अजाशकृत् तुषाग्निश्च भूगर्ते त्रितयं क्षिपेत् ।
 तस्योपरिस्थितं खल्वं तप्तखल्वमिति स्मृतम् ॥

*The first process of purification of Mercury. **

Mercury renounces its lead blemish by being rubbed in a hot mortar for the whole day with ram's fur, powdered turmeric, powdered brick, soot, and lime juice. It renounces its tin blemish by being rubbed with powdered root of bisala and of ankotha†. Blemish due to impure foreign matters is removed,

* Any one of these eleven processes is sufficient for the purpose.

† For provincial and Latin names for all the plants etc., referred to in this book, see foot note in Appendix.

if mercury is rubbed with the gum-like kernel of the fruit of aragbadha. Evil properties of fire are removed from mercury by its being rubbed with the powdered root of chitraka. Rubbing with powdered black dhustura plant removes the subtleness of mercury. Its poisonous properties are removed by its being rubbed with the powdered Triphala. The stone blemish of mercury is removed by its being rubbed with the powdered Trikatu ; whereas it is purged of its blemish due to inability to stand the heat of fire, by being rubbed with the Trikantaka.

For the removal of each of the blemishes, mercury is first of all to be sifted through a fine piece of cloth, and then rubbed with one sixteenth its weight of the powder of each of the things prescribed, including the juice of kanya. After the rubbing is over, the mercury is to be taken out of the hot mortar, and washed each time in an earthen pot, containing hot aranala.

—मतान्तरम्—

अथ द्वितीयः शोधनविधिः ।

श्रीखण्डदेवदारुककाकजङ्गाजयाद्वयैः ।

कर्कटीमुषलीकन्याद्वयैः रसं विमर्दयेत् ।

दिनैकं पातयेत् पश्चात् तं शुद्धं विनियोजयेत् ॥

Second process of purification.

Mercury is to be rubbed for one day with the decoction of each of the following :—white sandal, deodar, kakayangha, jayanti, karkati, mushali, and kanya. It is then to be subjected to a process of sublimation. Thus purified, it is to be applied for necessary purposes.

—मतान्तरम्—

अथ तृतीयः शोधनविधिः ।

कुमार्या च निशाचूर्णैर्दिनं सूतं विमर्दयेत् ।
पातयेत् पातनायन्त्रे सम्यक् शुद्धो भवेद् रसः ॥

Third process of purification.

Mercury is to be rubbed (for one day) with the juice of kanya and powdered turmeric, and then subjected to a process of sublimation. It will thus be fairly purified.

—मतान्तरम्—

अथ चतुर्थः शोधनविधिः ।

रसस्य द्वादशांशेन गन्धं दत्त्वा विमर्दयेत् ।
जम्बीरोत्थैर्द्रवैर्यामं पाच्यं पातनयन्त्रके ।
पुनर्मर्द्यं पुनः पाच्यं सप्तवारं विधानतः ॥

Mercury, with one twelfth its weight of sulphur, is to be rubbed with lime juice for three hours, and then to be subjected to a process of sublimation. All these are to be properly performed for seven times.

—मतान्तरम्—

अथ पञ्चमः शोधनविधिः ।

जयन्त्या वर्द्धमानस्य चाद्रकस्य रसेन च ।
वायस्याश्चानुपूर्विकं मर्दनं रसशोधनम् ॥
एषां प्रत्येकशस्तावन् मर्दयेत् खरसेन च ।
यावच्च शुष्कतां याति सप्तवारं क्रमेण च ॥

उद्धृत्योष्णारणालेन मृदभाण्डे क्षालयेत् सुधीः ।
सर्वदोषविनिर्मुक्तः सप्तकञ्चुकवर्जितः ।
जायते शुद्धसूतोऽयं युज्यते सर्वकर्मसु ॥

Fifth process of purification.

Mercury is purified by being rubbed with the juice of each of the following, in accordance with the order in which they are mentioned*. Jayanti leaves, castor leaves, ginger, and bayasi leaves. The rubbing is to be continued until each of the juice is dried up. This process is to be performed for seven times (*i.e.*, mercury is to be rubbed for 28 times altogether).† The mercury is then to be washed with hot aranala in an earthen pot. It is thus purified, and freed from all its blemishes and the seven covers, and becomes fit for use for all purposes.

—मतान्तरम्—

अथ षष्ठः शोधनविधिः ।

निशेष्टकाधूमरजोऽम्लपिष्टो विकञ्चुकः
स्याद्धि ततश्च सोर्णः ।
वरारणालानलकन्यकाभिः सत्रूचषणाभि
मृदितस्तु सूतः ॥

* In case fresh juice of herbs is not available, a decoction is to be prepared as follows :—

The prescribed herb, fresh and well-dried, is to be cut into pieces and boiled in an earthen vessel, covered with an earthen basin, with sixteen times its weight of water, which is to be reduced to one fourth its quantity. In the absence of specific instructions, this procedure is to be followed everywhere.

Sixth process of purification.

Mercury is freed from its seven coverings, if rubbed separately with each of the following :—

Turmeric, brick, soot, a sour vegetable juice, ram's wool, the Triphala, aranala, chitraka, kanya, and the Trikatu.

—मतान्तरम्—

अथ सप्तमः शोधनविधिः ।

दिनैकं मर्दयेत् सूतं कुमारीसम्भवैर्द्रवैः ।

तथा चित्रकजैः काथैर्मर्दयेदेकवासरम् ।

काकमाचीरसैः साद्धं दिनमेकन्तु मर्दयेत् ॥

Seventh process of purification.

Mercury is purified by being rubbed for one day with each of the following :—juice of kanya, and decoction of chitraka ; and then to be rubbed for one day and half with the juice of kakamachi.

—मतान्तरम्—

अथ अष्टमः शोधनविधिः ।

रसोनखरसैः सूतो नागवल्लीदलोत्थितैः ।

त्रिफलायास्तथा काथै रसो मर्द्यः प्रयत्नतः ॥

ततस्तेभ्यः पृथक् कृत्वा सूतं प्रचाल्य काञ्जिकैः ।

सर्वदोषविनिर्मुक्तं योजयेद् रसकर्मसु ॥

Eighth process of purifying Mercury.

Mercury is carefully to be rubbed separately with each of the following :—juice of garlic, that of betel, and decoction of the Triphala, and washed each time with kanji. Thus, it becomes free from all the blemishes and is fit for use in metallurgical operations.

—मतान्तरम्—

अथ नवमः शोधनविधिः ।

कुमारिकाचित्रकरक्तसर्षप
कृतैः कषायैर्बृहतीविमिश्रितैः ।
फलत्रिकेणापि विमर्द्दितो रसो
दिनत्रयं सर्वमलैर्विमुच्यते ॥

Ninth process of purification of Mercury.

Mercury is freed from all the blemishes, if rubbed for three days, with the decoction of kumari (kanya), chitraka, red mustard, and brihati.

—मतान्तरम्—

अथ दशमः शोधनविधिः ।

गृहकन्या मलं हन्यात् त्रिफला वह्निनाशिनी ।
चित्रमूलं विषं हन्ति तस्मादेभिः प्रयत्नतः ॥
मिश्रितं सूतकं द्रव्यैः सप्तवारान् विमर्द्दयेत् ।
इत्थं संमर्द्दितो सूतो दोषशून्यः प्रजायते ॥

The tenth process of purification.

Mercury is freed from foreign matters by being rubbed with kanya, from fire blemishes by being rubbed with the Triphala, from poison by being rubbed with the roots of chitraka. So, mercury, rubbed very carefully with each of these drugs for seven times, becomes free from blemishes.

— मतान्तरम् —

अथ एकादशः शोधनविधिः ।

(हिंगुलाद् रसाकर्षणप्रणाली) ।

(क)

अथवा हिंगुलात् सूतं ग्राहयेत् प्रयतः सुधीः ।
 बहुविधा क्रिया चात्र वर्णिता रससाधकैः ॥
 जम्बीरनिम्बुनीरेण मर्दिता हिंगुलो दिनम् ।
 ऊर्ध्वपातनयन्त्रेण ग्राह्यः स्यान् निर्मलो रसः ।
 कञ्चुकैर्नागवङ्गाद्यैर्निर्मुक्तो रसकर्म्मणि ।
 विना कर्म्माष्टकेनैव सूतोऽयं सर्वकर्म्मकृत् ॥

(ख) मतान्तरम् ।

दरदं तण्डुलं स्थूलं कृत्वा मृत्पात्रके त्रिदिनम् ।
 भाव्यं जम्बीररसैश्चाङ्गेय्या वा रसैर्बहुधा ॥
 ततश्च जम्बीरवारिणा चाङ्गेय्यारसेन परिप्लुतम् ।
 कृत्वा स्थालीमध्ये निधाय तदुपरि कठिनीघृष्टम् ॥
 चारुशरावे तत्र त्रिंशद्वारं जलं देयम् ।
 उष्णो हेयं तथैव तदूर्ध्वपातनेन निर्मलः शिवजः ॥

(ग) मतान्तरम् ।

पारिभद्ररसैः पेप्यं हिंगुलं यामभात्रकः ।
 जम्बीराणां रसैर्बार्थ पचेत् पातनयन्त्रके ॥
 तं सूतं योजयेद् योगे सप्तकञ्चुकवर्जितम् ।
 संशुद्धिमन्तरेणापि शुद्धोऽयं रसकर्म्मणि ॥

The eleventh process of purification.

Mercury may also be extracted from Hingula (cinnabar) in one of the following ways :—

(a) Hingula is to be rubbed for one day with lime juice or lemon juice, and then subjected to the process of Urdhapatanam (upward sublimation by means of Vidyadhara Jantram*). Mercury, thus obtained, is pure and free from all the blemishes and coverings. It may be used in everything without being subjected to the eight indispensable operations of mercury.

Or

(b) Hingula is to be broken into small pieces of the size of rice, kept in an earthen pot, saturated several times with the juice of lime or of changeri for three days, and dried everytime by being exposed to the sun in day time and to open air at night. Then, it is again to be saturated with the juice of lime fruit or of changeri, and kept in an earthen vessel, which is to be covered with an earthen basin, the convex side of which is to be rubbed with powdered chalk, (the joint being cemented with mud). Water is to be put into the basin, and heat applied underneath. The water is to be replaced as soon as it gets heated; and this is to be done at least for 30 times, before mercury begins to be deposited on the convex side of the water basin.† The mercury so obtained is pure.

* See chapter on Jantram or apparata.

† The apparatus described here is called a Vidyadhara Jantram.

Or

(c) Hingula is to be rubbed with the juice of leaves of paribhadra (meaning two different trees, viz. margo and Erithrina Indica), or with lime juice for 3 hours, and then subjected to a process of sublimation. Mercury so obtained is free from the coverings, and may be used in all things, without being subjected to further processes of improvement.

(N.B. All these processes refer to what is called a process of Urdhapatanam or upward sublimation. The processes, as given in the books, are sometimes found to be tedious, especially in view of the replacement of hot water by cool water, as long as the whole of the mercury does not come up and become attached to the convex side of the basin. The author is aware of a kindred process of sublimation learnt from an ascetic chemist. This process, which is much simpler, is described below).

संक्षेपादूर्ध्वपातनमन्यविधं निगद्यते ।

स्वल्पायासेन संसाध्यमेतदेव जलं विना ॥

चतुर्भिर्खटिभिर्धृतञ्चाधोमुखन्तु रक्षयेत् ।

मृत्पात्रं बुद्ध्याकारं शरावं तदधो न्यसेत् ॥

शरावे धारयेत्तस्मिन् हिङ्गुलं वज्रमण्डितम् ।

सूर्यीकृतं विशोधितं शुष्कीकृतं प्रयत्नतः ॥

तदुपरि न्यसेत् प्राज्ञः शिल्पिनाम्निं * मृदुप्रभम् ।

उत्तापाह्नगते चोर्ध्वं रसो वायुविद्यालितः ॥

* शिल्पिनाः पावकोच्छिन्नाः—दिकिया इति भाषा ।

Place an earthen vessel (about two feet in height) upside down on four props made of pieces of stone or brick (with sufficient space kept open for the entrance of air into the vessel). Within the space enclosed by the three props, place an earthen basin (in such a way as not to obstruct the entrance of air into the vessel). Spread the dried and powdered Hingula over a piece of cloth and wrap it in several folds. The cloth, thus folded and made into a bundle, is then to be put into the earthen basin. The bundle is now to be covered with mild *tikia* fire. When the fire will be extinguished and the apparatus cooled, mercury will be found to be deposited inside the vessel.

(२) अथ रसस्य स्वेदनम् (एतदस्य द्वितीयः संस्कारः) ।

प्रथमो विधिः ।

रसं चतुर्गुणे बद्धे बद्धे । दोलाकृतं पचेत् । ।
दिनं न्योषवरावहिक्रयाकल्केषु काञ्जिके ।
दोषशेषापनुत्त्यर्थमिदं स्वेदनमुच्यते ॥

(2) *Swedanam or boiling of mercury (i.e., second mercurial operation).*

*First process**

Mercury being bound in a piece of cloth four-folded (*i.e.*, having four folds) is to be boiled for a day in kanji, mixed with pasted trikatu, triphala, chitraka roots, and kanya. This act of boiling is necessary for the removal of remnants of blemishes.

*Any of the four processes may be observed.

—मतान्तरम्—

द्वितीयो विधिः ।

श्रूषणं लवणासूय्यौ चित्रकाद्रकमूलकम् ।
एतैः सह रसो स्वेद्यः काञ्जिके तु दिनत्रयम् ॥

Second process.

Mercury is to be boiled in kanji for three days with trikatu, rock salt, rajika, chitraka roots, and ginger.

—मतान्तरम्—

तृतीयो विधिः ।

लवणत्रिकटुचारैः सर्वं मर्दयमजाजलैः ।
मृन्मये वायसे पात्रे स्वेदयेच्च दिनत्रयम् ॥
क्षालयित्वाथ त्रिदिनं मर्दयेत् स्वेदनौषधैः ।
राजिकाशिमुपत्रैश्च कुर्यात्कुरण्डलिकां शुभां ॥
रसं मध्ये विनिक्षिप्य बद्ध्वाथ पोटलीम् ।
क्षाराग्लमूत्रवर्गेण स्वेदयेच्च दिनत्रयम् ॥

Third process.

Saindhava, trikatu, all the ksharas (alkalis), and mercury are to be rubbed together with goat's urine, and boiled in an earthen or iron vessel for three days. Mercury is then to be washed and rubbed with all the materials required for boiling. *viz.* saindhava (rock salt), trikatu, ksharas, and goats' urine. Rajika and leaves of sigru are to be rubbed and made into a ball, inside which is to be placed the

mercury, the whole thing being bound in a piece of cloth, and boiled again for 3 days with all sorts of alkalis, sour vegetable juices, and urines.

—मतान्तरम्—

चतुर्थो विधिः ।

त्रूथषणं लवणं राजी मूलकं त्रिफलाद्रकम् ।

महावलानागवलामेघनादपुनर्णावाः ॥

मेषशृङ्गी चित्रकश्च नवसारं समं समं ।

रसस्य षोडशांशेन सर्वं युञ्ज्यात् पृथक् पृथक् ॥

एतत् समस्तं व्यस्तं वा पूर्वाम्लेनैव पेषयेत् ।

प्रलिम्पेत् तेन कल्केन बल्लमङ्गुष्ठमात्रकम् ॥

तन्मध्ये निक्षिपेत् सर्वं बध्वा तु त्रिदिनं पचेत् ।

दोलायन्त्रेऽम्लसंयुक्ते जायते स्वेदितो रसः ।

Fourth process.

The trikatu, saindhava, rajika, mulaka, the triphala, ardraka, mahabala, nagabala, meghanada, punarnava, meshasingi, chitraka, and nabasara—each of these, one-sixteenth in weight of the mercury, is to be rubbed with kanji and made into a paste. A piece of cloth is to be coated, one anguli deep, with this paste. Mercury is to be put into this cloth, which is to be made into a bundle, and boiled for three days in a Dola Jantram.

(३) अथ रसस्य मर्दनम् (एतदस्य तृतीयः संस्कारः) ।

प्रथमो विधिः ।

एहधूमेष्टकाजाजीदग्धोर्णगुडसैन्धवैः ।

सकाञ्जिकैः षोडशांशैर्मर्दनं त्रिदिनं शुभम् ॥

(3) *Rubbing of mercury (i.e., the third mercurial operation).*

First process.

Mercury is to be rubbed for three days separately with one-sixteenth its weight of soot, brick, white jeera, burnt fur of ram, molasses, saindhava, (rock salt), each being mixed with a sufficient quantity of kanji.

—मतान्तरम्—

द्वितीयो विधिः ।

एहधूमेष्टकाचूर्णं तथा दधिगुडान्वितम् ।

लवणासुरिसंयुक्तं क्षिप्त्वा सूतं विमर्दयेत् ।

षोडशांशं तु तद् व्यं सूतमानाम्नियोजयेत् ।

सूतं क्षिप्त्वा समं तेन दिनानि त्रीणि मर्दयेत् ॥

जीर्णाभ्रकं तथा वीजं • जीर्णसूतं तथैव च ।

नेर्मर्दयार्थं हि सूतस्य खल्वे धृत्वातु मर्दयेत् ॥

एहाति निर्ममलो रागान् प्रासे प्रासे विमर्दितः ।

मर्दनाख्यं हि यत् कर्म तत् सूतगुणकृद् भवेत् ।

* शुभं सर्पेण रूपेण वीजमित्थविधीयते ।

Second process.

Mercury is to be rubbed for 3 days with each of the following :—Soot, brick powder, curd, molasses, saindhava (rock salt), and rajika (rye). The quantity of each of the things is to be one-sixteenth the weight of the mercury. When this is done, for the purpose of removal of dirt, the mercury is again to be rubbed with each of the following; abhra bhasma (mica reduced to ash), bijam (purified gold or silver), and exhausted * mercury,

In course of being rubbed in this way, mercury assumes a clearer appearance at every rubbing.

N. B.—After each rubbing, mercury is to be washed, as previously stated, in an earthen vessel containing hot kanji.

—महान्तरम्—

तृतीयो विधिः ।

इष्टिकाचूर्णं लवणं गुड़ोष्णाराजिका तथा ।

गृहधूमसमायुक्तं सूते दद्यात् कक्षांशिकम् ।

मर्दयेत् त्रिदिनं सूतमम्लवर्गेण संयुतम् ॥

* In the absence of a better term we make it to mean नीचं सूतः । Modern Chemistry has got nothing corresponding to नीचं सूतः (exhausted mercury), मृतसूतः (dead mercury) and नष्टसूतः (mercury reduced to ash). Calomel and some other mercurial preparations may perhaps be considered to belong to the class of सुचिंतितसूतः (swooned mercury).

Third process.

Mercury, in combination with a sufficient quantity of sour vegetable juice, is to be rubbed for three days with one sixteenth its weight of each of the following :—powdered brick, rock salt, molasses, rye, and soot.

—मतान्तरम्—

चतुर्थो विधिः ।

रक्तेष्टिकानिशाधूमसारोणाभिस्मचूर्णकैः ।

जम्बीरद्रवसंयुक्तैर्मुहुर्महार्थोदिनत्रयम् ॥

दिनैकं वापि सूतः स्यान्महं नान्निर्मलः परम् ।

उद्ध्वं पातनयन्त्रेण गृह्णीयाच्च पुनः पुनः ।

पटसारणतोवापि क्षालनाद् वारणाक्षतः ॥

Fourth process.

Mercury is to be rubbed constantly for one day or three days with the powder of each of the following, mixed with lime juice : red brick, haridra, dhumasara (soot), and urna (wool) reduced to ashes. The mercury is then to be subjected to upward sublimation for several times, or to be sifted by means of a thick piece of cloth ; or to be washed off in kanji.

(४) पारदस्य उद्ध्वृतिः* (सूतस्यैषा चतुर्थः संस्कारः) ।

प्रथमो विधिः ।

महं येत् कण्यकाद्रवैश्चूर्णितैरात्रिपादिकैः ।

पातयेत् पातनायन्त्रे इत्थमुत्थापनं मतम् ॥

* उद्ध्वारणमुत्थापनमित्येते नामान्तरे अस्य ।

(4) *Utthapanam or raising of mercury (i.e., the fourth mercurial operation).*

Mercury is to be rubbed with one-fourth its weight of powdered turmeric, and a sufficient quantity of the juice of kanya, and then sublimated in a Patana Jantram (an apparatus for the sublimation of mercury). This is what is called the utthapanam or raising of mercury.

—मतान्तरम्—

द्वितीयो विधिः ।

तत उत्थापयेत् सूतमातपे निम्बुकार्दितम् ।

उत्थापनावशिष्टं तु चूर्णं पातनयन्त्रके ॥

धृत्वाग्नाबूद्ध्वा भागदस्थं गृह्णीयात् पारदं भिषक् ॥

Second process.

Mercury is to be rubbed in the sun with lime juice, dried, and taken out. The remains of this mercury, incapable of being collected, if any, should be sublimated by means of a Damarujantram or Vidyadhara Jantram.

(५) पारदस्य पातनम् (एतदस्य पञ्चमः संस्कारः) ।

(एतत् त्रिविधं यथा—ऊर्ध्वपातनम्, ततोऽधःपातनम्, ततः तिर्यक् पातनम् । प्रत्येकं क्रमशः समाचरितव्यं यथाविधि ।)

(क) ऊर्ध्वपातनम् ।

प्रथमो विधिः ।

भागत्रयं रसस्यार्कभागमेकं विमर्दयेत् ।

जम्बीरद्रवयोगेन यावदायाति पिण्डताम् ॥

तत् पिण्डं तलभाण्डस्थमूर्द्धभाण्डे जलं क्षिपेत् ।
विद्याधराख्ययन्त्रेण* रसं समुद्धरेद् बुधः ॥

(5) Patanam or sublimation of mercury (i.e., the fifth mercurial operation).

(a) *Urdhvapatanam or upward sublimation.*

First process.

Three parts of mercury and one part of copper are to be rubbed with lime juice till the whole thing turns into a lump. This lump is to be kept inside an earthen vessel on which is to be placed another earthen vessel containing water, forming what is called a Vidyadhara Jantram*, by means of which the mercury is to be sublimated.

—मतान्तरम्—

द्वितीयो विधिः ।

शुक्लेन पातयेत् पिष्टिं त्रिघोर्द्धं सप्तधात्वधः ।
तदासौ शुध्यते सूतः कर्मकारी भवेद् ध्रुवम् ॥

Second process.

Mercury is to be rubbed with copper, made into a lump, and then subjected to a process of upward sublimation for three times, and to a process of downward sublimation for seven times. Mercury, thus purified, becomes fit for use.

* जत्रो यन्त्रनिरूपणाख्यः अध्यायो ब्रह्म्यः ।

—मत्तान्तरम्—

तृतीयो विधिः ।

हरिद्राङ्गुकोल्लशम्पाककुमारीत्रिफलाग्निभिः ।
 तण्डुलीयकवर्षाभूहिङ्गसैन्धवमाक्षिकैः ॥
 पिष्टं रसं सलवणैः सर्पाक्षयादिभिरेव वा ।
 पातयेदथवा यत्नाद् ब्रह्मघ्नीयक्षलोचनैः ॥
 ऊर्ध्वार्धः पातनाच्चेत्थं पातितोऽस्तौ यदाभवेत् ।
 तदा रसायने योग्यो भवेद् द्रव्यविशेषतः ॥

Third process.

Mercury is to be rubbed with the following, made into a lump, and then subjected to a process of sublimation, both upward and downward :—

Haridra, ankolla, sampaka, kumari, trifala, chitraka, tanduliyaka, punarnava, hingu, saindhava, and makshika (pyrites or honey),

Or

Sanidhava and nakuli, etc,

Or

Branaghni and jakshalochanam.

Mercury, thus sublimated upward and downward, becomes fit for medicine, when combined with other things.

—मत्तान्तरम्—

चतुर्थो विधिः ।

मयूरघ्नीवताप्याभ्यां नष्टपिष्टीकृतस्य च ।
 यन्त्रे विद्याधरे कुर्याद् रसेन्द्रस्योर्ध्वपातनम् ॥

Fourth process.

Mercury is to be so rubbed with tutthaka and swarnamakshika as to loose its separate existence. It is then to be sublimated by means of a Vidyadhara Jantram.

(ल) अधःपातनम् ।

प्रथमो विधिः ।

त्रिफलाशिग्रु शिखिभिर्लवणासुरिसंयुतैः ।
 नष्टपिष्टं रसं कृत्वा लेपयेद्बुद्धभाजनम् ॥
 ततो दीप्तैरधः पातमुपलैस्तस्य कारयेत् ।
 यन्त्रे भूधरसंज्ञे तु ततः सूतो विशुच्यति ॥

(b) Downward sublimation.

First process.

Mercury is to be rubbed with triphala, sigru, chitrika, saindhava, and rajika, and made into a lump which will have to be attached to the internal surface of the upper vessel of a Bhudhara Jantram, * placed upside down upon another vessel containing water, a glowing fire made of dried cowdung balls being placed upon the external surface of the upper vessel. The downward sublimation of mercury will have to be effected in this way.

—प्रतान्तरम्—

द्वितीयो विधिः ।

नवनीताह्वयं** सूतं घृष्ट्वा जम्भाम्भसा दिनम् ।
 वानरी शिग्रु शिखिभिः सैन्धवासुरिसंयुतैः ॥

* For details see chapter on apparata.

** नवनीतार्द्रकमिति रसेन्द्रचिन्तामणिघृतपाठः ।

नष्टपिष्टं रसं कृत्वा लेपयेद्दूर्ध्वं भाण्डके ।
 ऊर्ध्वं भाण्डोदरं लिप्तं ।ऽधोभागं जलसंयुतम् ॥
 सन्धिलेपं द्वयोः कृत्वा तद् यन्त्रम् भुवि पूरयेत् ।
 उपरिष्ठात् पुटे दत्ते जले पतति पारदः ।
 अधः पातनमित्युक्तं सिद्धाद्यैः सूतकर्मणि ॥

Second process.

Nabanitam (sulphur or butter) and mercury are to be taken in equal quantities and rubbed together for one day with lime juice, banari, sigru, chitraka, saindhava, and rajika, and made into a lump, with which is to be painted the inner part of an earthen vessel. This vessel is to be put upside down on another vessel containing water, the joint being tightly closed with mud etc. The apparatus is to be put inside a hole cut in the ground, fire being placed upon the surface of the upper vessel. Mercury falls into the water. This is what is called the Adhahpatanam or downward sublimation of mercury.

ऊर्ध्वाधःपातनस्य विभिन्ना प्रणाली ।

तस्यामादौ अधःपातनम् ।

द्वौ भागौ तस्य सूतस्य ताम्रचूर्णैकमेव च ।
 दत्ताम्लं महयेत् खल्वे विषचूर्णेन संयुतम् ॥
 पिष्टिं कृत्वा प्रयत्नेन क्षालयेत्तदनन्तरम् ।
 कटाहं नूतनं नीत्वा तस्याधो लेपयेद् रसम् ।

वस्त्रं तत्र मृदा लिप्त्वा जलं स्याल्युपरि क्षिपेत् ।
 स्यालीकटाहयोः सन्धिं लेपयेत् सुदृढं मृदा ॥
 कटाहोपरि कर्त्तव्यं वन्योपलामिदीपनम् ।
 जलमध्ये रसो याति शुद्धं तिष्ठति चोपरि ॥

ततश्चोर्ध्वपातनम् ।

शुद्धाद् रसं रसात् ताम्रं पातयेच्च पृथक् पृथक् ।
 पुनः पिष्टी प्रकर्त्तव्या दत्ताम्स्तं ताम्रसंयुतम् ।
 ऊर्ध्वपातनमेतस्य यन्त्रे डमरुके * भवेत् ॥

A reverse process of sublimation.

First, downward sublimation.

Two parts of mercury and one part of powdered copper (purified) are to be rubbed with a sour vegetable juice mixed with powdered bisham (aconite purified), and made into a lump, which is to be washed very carefully. The inner part of a new earthen pan or bowl is to be painted with the mercury. This pan or bowl is to be put upside down upon a vessel containing water, the joint being cemented with mud and rag. A fire made of dried cowdung balls is to be placed upon the pan or bowl. Mercury will fall into the water, leaving copper attached to the pan or bowl.

Then, upward sublimation.

Now, mercury and copper are to be carefully separated from each other, and again rubbed together, with lime juice and made into a lump which will be

* विद्याधरयन्त्रम् प्रशस्ततरम् ।

subjected to a process of upward sublimation by means of a Damaru Jantram. *

(ग) तिर्य्यकपातनः ।

शुद्धणीकृतमभ्रदलं रसेन्द्रयुक्तं तथारणालेन ।
खल्वे दत्त्वा मृदितम् यावत्तन्नष्टपिष्टतामेति ।
कुर्यात् तिर्य्यकपातनपातितसूत्रं क्रमेण दृढवर्हि ।
संस्वेद्यः पात्योऽसौ न पतति यावद् दृढश्चाग्नौ ॥

(c) Inclined sublimation.

Mica, purified and finely powdered, is to be rubbed with mercury and kanji in a motar, and made into a lump which is to be placed in a Tirjak Patana Jantram. Heat is to be increased gradually till the whole of the mercury is sublimated through the inclined passage.

(६) अथ पारदस्य रोधनम् (निरोधः) • (एतदस्य
षष्ठः संस्कारः) ।

प्रथमो विधिः ।

पातैः कदर्थितः सूतः षण्डत्वमधिगच्छति ।
तन्मुक्तयेऽस्य क्रियते रोधनम् कथ्यते हि तत् ॥
विश्वामित्रकपाले वा काञ्चकूप्यामथापि वा ।
सृष्टाम्बुजं •• विनिक्षिप्य तत्र तन्मज्जनावधि ॥

* Vidyadhara Jantram is more convenient.

• कञ्चिद् भ्रान्तिपशादेतद् रोधनम् कथ्यते ।

•• सृष्टाम्बुजमिति पाठान्तरम् । सृष्टाम्बुजं विनिक्षिप्य इत्यस्य
स्थाने "सूते अलं विनिक्षिप्य" इत्येष पाठो ब्रह्मण्यो रसेन्द्रसारसंग्रहे ।

पूरयेत् त्रिदिनं भूम्यां गजहस्तप्रमाणतः ।
अनेन सूतराजोऽयं षण्डभावं विमुञ्चति ।

(6) *Rodhanam or confinement of mercury. (i. e., the sixth mercurial operation.)*

Mercury is to be subjected to a process of confinement for removal of the impotency which it has acquired by being sublimated. The process is as follows :—Put the mercury into a glass bottle or a shell of a cocoanut. Put over it as much decoction of, bala and riddhi (or, a solution of rock salt, according to another version), as is necessary for the immersion of the mercury. The bottle or the cocoanut shell, as the case may be, is then to be kept buried for 3 days in a hole one yard deep, dug out in the ground. By this way mercury is freed from impotency.

—प्रतान्तरम्—

द्वितीय विधिः ।

सृष्ट्याम्बुजैर्निरोधेन तदा सुखकरो रसः ।
स्वेदनादिवशात्सूतो वीर्य्यं प्राप्नोत्यनुत्तमम् ॥

(b) Second process.

Mercury, if confined with the decoction of riddhi and bala (according to another version; if confined

असाधुरेष मन्यते यतो वारिसंयोगाद् रसोऽयं पुनर्वारिजदोषं लभेत ।
सृष्ट्याम्बुजं—शुद्धैर्बलायाश्च काथमिति रसेन्द्रचिन्तामणिमाष्यकार-
व्याख्या । कैश्चित् सृष्ट्याम्बुजं विकशितकमलमिति व्याख्यातम् ।
सृष्ट्याम्बुजं तरुणलीरजोमूत्रमित्यपि कैश्चिद्व व्याख्यातम् । सृष्ट्याम्बुजं
सैन्धवजलम् ।

with a solution of rock salt becomes a giver of happiness. It gains in potency by further heating, etc.

—मतान्तरम्—

तृतीयो विधिः ।

कदर्थनेनैव नपुंसकत्वमेवं भवेदस्य रसस्य पश्चात् ।
वीर्यप्रकर्षाय च भूर्जपत्रे स्वद्यो जले सैन्धवचूर्णागर्भे ॥

(c) Third process.

Mercury acquires impotency by being subjected to processes of sublimation. For the purpose of increasing its potency, it is therefore, to be boiled by being confined within bburja leaves, containing rock salt.

—मतान्तरम्—

(ख) चतुर्थो विधिः ।

अथ सूतं समुद्धृत्य काचकूप्यां विनिक्षिपेत् ।
सम्महर्थास्तेन संपूर्य्य द्वारमुद्रां प्रदापयेत् ॥
स्थापयेद् डमरुयन्त्रे स्वेदयेद्दिनसप्तकम् ।
स्वांगशीतं समुद्धृत्य पूर्ववत् स्वेदयेत् पुनः ॥

(d) Fourth process.

Mercury is to be rubbed with a sour vegetable juice and put into a bottle, the mouth of which is to be hermetically sealed. The bottle is then to be put inside a Damaru Jantram, in which it is to be boiled for seven days. When completely cooled, it is again to be boiled in the same way.

(८) पञ्चमो विधिः ।

जलसैन्धवयुक्तस्य रसस्य दिवसत्रयम् ।
स्थितिरास्थापनी कुम्भे याऽसौ रोधनमुच्यते ।

(e) Fifth process.

Mercury is said to undergo 'rodhanam' or confinement, if it is kept for 3 days in a vessel containing water and saindhava salt.

N. B. In addition to the foregoing processes, a few others are sometimes resorted to, viz., (1) heating of mercury with a solution of rock salt ; (2) Mercury is to be put into a bottle with the menstrual discharge of a young girl, the closed bottle being kept buried for 3 days in a hole cut in the ground ; (3) Mercury is to be heated in a Damaru Jantram for 3 days with the menstrual discharge of a young girl.

(७) अथ पारदस्य नियामनम् (एतदस्य सप्तमः
संस्कारः) ।

रोधनाङ्गवैर्यस्य चपलत्वनिवृत्तये ।
क्रियते पारदे स्वेदः प्रोक्तं नियामनं हि तत् ॥

(7) *Niyamnam or Restraint of mercury.*

In order to do away with the subtleness of mercury due to its gaining in strength by confinement, it is to undergo heating in one of the prescribed manners. This operation is called, "niyamanam", or "restraint" of mercury.

(क) प्रथमो विधिः ।

सर्पाक्षीचिञ्चिकाबन्ध्याभृङ्गाब्जकनकाम्बुभिः ।
त्रिदिनं मर्दितो सूतो नियमात् स्थिरतां व्रजेत् ॥

First process.

Restraint of mercury consists in rubbing it for three days with the decoction of gandhanakuli, bark of tamarind, bitter karkoti, bhringaraja, lotus, and kanaka dhustura. This causes the stability of mercury.

—प्रतान्तरम्—

(ख) द्वितीयो विधिः ।

नियम्योऽसौ ततः सम्यक् चपलत्वनिवृत्तये ।
कर्कटीफणिनेत्राभ्यां वृश्चिकाम्बुजमार्कवैः ॥
समं कृत्वारणालेन स्वेदयेच्च दिनत्रयं ॥

(b) Second process.

In order to remove the subtleness of mercury, it is necessary to restrain it by rubbing it with karkoti, gandhanakuli, punarnava, lotus, and bhringaraja, and then boiling it for three days with kanji.

—प्रतान्तरम्—

(ग) तृतीयो विधिः ।

मरिचैर्भूखगयुक्तैर्खवणासुरिशिम्बुटङ्गणोपेतैः ।
काञ्जिकयुक्तैस्त्रिदिनं प्रासार्थी जायते स्वेदात् ॥

(c) Third process.

Mercury, if rubbed for 3 days with kanji and the following, and then heated, is restrained, and is

capable of devouring metals :—maricha, earthworm, saindhava, rajika, sigru, and tankana.

—मन्त्रान्तरम्—

। (ब) चतुर्थी विधिः ।

स्थूलसैन्धवखोटेन कार्थ्यं मूषापुटत्रयम् ।
 स्यादपिच्छि । रसं तत्र नवसारं कलांशिकम् ॥
 द्वारं निरुध्य यत्नेन वस्त्रं च वेष्टयेन् मृदा ।
 स्थापयेद् भूधरे यन्त्रे वह्निः कार्थ्यो दिनत्रयम् ॥

(d) Fourth process.

Three crucibles are to be made out of a thick lump of saindhava (each for use for one day). Mercury, with one sixteenth its weight of nabasara, is to be put inside the crucible, the mouth of which is to be hermetically closed with mud and rags. It is then to be boiled by means of a Bhudhara Jantram for three days (one day in each crucible).

—मन्त्रान्तरम्—

(७) पञ्चमो विधिः ।

उत्तरापथजः स्थूलो रक्तसैन्धवखोष्ट्रकः ।
 तद्गुग्गुले रन्ध्रकं कृत्वा सूतं तत्र विनिधिपेत् ॥
 ततस्तु चणकद्वारं दत्त्वा चोपरि नेम्बुकम् ।
 विप्या तत्र प्रदातव्यं पटुना द्वारमुद्वेषम् ।
 गर्भं कृत्वा ततो भूम्यां विपेत् सैन्धवसम्पुटम् ॥

धूलिमष्टाङ्गुलां दत्त्वा कारीषं दिनसप्तकम् ।
 वह्निं प्रज्वालथ तद् ग्रह्यं चालयेत् काञ्जिकेन तु ॥
 अयं नियमनो नाम्ना संस्कारो गदितो बुधैः ।
 अभावे चणकचारादर्पयेन्नरसारकम् ॥

Fifth process.

Mercury is to be put inside a hole made in a red sandhava lump. Chanaka kshara is then to be put inside the hole. Next is to be poured some lime juice into it. The hole is then to be tightly closed by means of another piece of red rock salt. The samputam, thus prepared, is to be put in a hole made in the earth, which is to be filled in with dust eight angulis in depth deposited upon the salt samputam. A fire made of cow dung, found dried in the pasturage, is to be kept ablaze for seven days. The mercury is then to be washed off with kanji. Narasaram may be made use of, if chanaka kshara is not available.

(८) अथ पारदस्य दीपनम् । (एतदस्य अष्टमः
 संस्कारः) ।

धातुपाषाणमूलाद्यैः संयुक्तो घटमव्यगः ।
 प्रासार्थं त्रिदिनं खेद्यो दीपनं तन्मतं बुधैः ॥

(8) *Dipanam or stimulation of mercury, (i. e. the eighth mercurial operation.)*

The process by which mercury is kept inside an earthen vessel and heated with some metals, stones, and vegetables for three days is called *Dipanam* or

stimulation of mercury. This process makes mercury fit for swallowing metals, etc.

(क) प्रथमो विधिः ।

कासीसं पञ्चलवणं राजिकां मरिचानि च ।
 भूशिग्रू बीजमेकत्र टङ्कणेन समन्वितम् ॥
 आलोढ्य काञ्जिके दोलायन्त्रे पाकादिनैस्त्रिभिः ।
 दीपनं जायते सम्यक् सूतराजस्य नान्यथा ॥
 अथवा चित्रकद्रावैः काञ्जिके त्रिदिनं पचेत् ॥

(a) First process.

Kasisa, five different kinds of salts, rajika, maricha, sigru seeds, tangana, kanji, and mercury are to be rubbed together and put into a Dola-Jantram, and heated for three days ; or mercury may be mixed with the juice of chitraka, and boiled with kanji for three days.

—मताम्तरम्—

(ख) द्वितीयो विधिः ।

त्रिधारसिन्धुखगभूशिखिशिग्रू राजी
 तीक्ष्णाम्लवेतसमुखैर्लवणोषणाम्लैः ।
 नेपालताम्रदलशोधितमारणाले
 साम्लासवाम्लपुटितं रसदीपनं तत् ॥

(b) Second process.

Mercury is to be rubbed together with the three ksharas (alkalis), saindhava, earthworm, chitraka root,

sigru, rajika, sarsapa, amlabetasa, saindhava, maricha, and aranala and to be dried by being placed on Nepal copper plates. This is then to be boiled with kanji or with sour asava.

(६) अथ पारदस्य नवमः संस्कारः । (एतदस्य
नवमः संस्कारः) ।

(क) प्रथमो विधिः ।

दीपितं रसराजन्तु जम्बीररससंयुतम् ।
दिनेकं धारयेत् घर्मे मृत्पात्रे वा शिलोद्भवे ॥

(9) *Anubasanam or Rehabilitation of mercury (i. e. the ninth mercurial operation).*

(a) *First process.*

Stimulated mercury is re-habilitated by being mixed with lime juice, and exposed to the sun, for one day, in a pot made of earth or stone.

—मताम्बरम्—

(क) द्वितीयो विधिः ।

स्वेदयेदासवाम्लेन वीर्यतेजःप्रवृद्धये ।
यथोपयोगसंस्वेद्यः मूलिकानां रसेषु च ॥
सर्पाक्षी क्षीरिणी घन्ध्या मत्स्याक्षी शङ्खपुष्पिका ।
काकजङ्घा शिल्शिषिषा ब्रह्मदण्ड्याखुकर्णिका ॥
वर्षाभूः कञ्जुकी दूर्वा सैय्यकोत्पलशिम्बिकाः ।
शतावरी वज्रलता वज्रकन्दाभिकर्णिका ॥

श्वेतार्कशिग्रू धत्तूरमृगदूर्वारसाङ्कुशाः ।
 रम्भारक्तालुनिर्गुण्डी लज्जालुः सुरदालिका ॥
 मण्डुकपर्णी पाताली चित्रकं प्रीष्मसुन्दरा ।
 काकमाची महाराष्ट्री हरिद्रा तिलपर्णिका ॥
 जाती जयन्ती श्रीदेवी भूकदम्बः कुसुम्भकः ।
 कोशातकी नीरकणा लाङ्गुली कटुतुम्बिका ॥
 चक्रमर्दोऽमृता कन्दः सूर्यावर्तेषुपुङ्खिका ।
 वाराही हस्तिशुण्डी च प्रायेण रसमूलिकाः ॥
 रसस्य भावने स्वेदे मूषालेपे च पूजिताः ॥

(b) *Second process.*

For the purpose of intensifying the potency of mercury, it is to be boiled with sour asava or with the juice of some or all of the following :—

Gandhanakuli, kshirini, bandhya, hila-mochika, sankhapuspi, kakajangha, apamarga, bhargi, akhukarni, punarnava, kanchuki, durba, swetajhinti, utpala, simbi, satabari, asthibhanga, agnikarni, sweta arka, sigru, dhatura, mrigadurba ; (these serve to control mercury), rambha, raktalu, nirgundi, lajjalu, devadali, mandukaparni, patali (nagaballi), chitraka, grisma-sundara, kaka machi, maharastri, haridra, tilaparni, jati, jayanti, shreedevi, bhukadamba, kusumbha, koshataki, jalapippali, langali, katutumbi, chakramarda, guduchi, shurana, surjabarta, sarapunkha, barahikanda, and hastishundi—all these are what are called rasamulika. These are useful for the purpose of rubbing and

boiling of mercury, as also for making crucibles for mercurial operations.

अथ सर्वदोषहरसंक्षिप्तशोधनविधिः ।

कुमारिकाचिन्नकरक्तसर्षपकृतैः कषायैर्वृहती-
विमिश्रितैः ।

फलत्रिकेणापि विमर्हितो रसो दिनत्रयं
सर्वमलैर्विमुच्यते ॥

कुमार्या च निशाचूणैर्दिनं सूतं विमर्शयेत् ।
एवं कदर्थितः सूतो षण्डो भवति निश्चितम् ।
बह्वोषधिकषायेण स्वेदितः स बली भवेत् ।
सर्पाक्षी चिञ्चिकाबन्ध्याभृङ्गाब्दैः स्वेदितो बली ।
ततः स पावकद्रावैः स्विन्नः स्यादति दीप्तिमान् ॥

(क्लेम विधिना शोधितसूतस्य स्वेदनाद्यनुवासनान्तकाः
संस्काराः निष्पयोजनाः) ।

An easy process of absolute purification of mercury.

Mercury is stripped of all sorts of impurities, if rubbed for three days with a decoction of kanya, chitraka, red sarshapa, and brihati, and for 3 days more with the triphala. Mercury is then to be rubbed for one day with kanya and powdered haridra. Mercury thus treated becomes impotent, and is therefore to be boiled with the decoction of sarpakshi, chinchika, bandhya, bhringaraja, and mustaka. Thus it becomes powerful. If it is then boiled with the decoction of chitraka, it becomes very powerful.

(Mercury, thus purified, does not require to undergo all those operations beginning with boiling and ending with rehabilitation).

अथान्यविधः सर्वदोषहरः संक्षितः शोधनविधिः ।

राजीरसोनमूषायां रसं क्षिप्वा विबन्धयेत् ।
 वस्त्रेण दोलिकायन्त्रे स्वेदयेत् काञ्जिकैस्त्रयहम् ॥
 दिनैकं मर्दयेत् सूतं कुमारीसम्भवैद्रवैः ।
 तथा चित्रकजैः काथैर्मर्दयेदेकवासरम् ॥
 काकमाचीरसैस्तद्बद्ध दिनमेकञ्च मर्दयेत् ।
 त्रिफलायास्तथा काथै रसो मर्दयः प्रयत्नतः ॥
 ततस्तेभ्यः पृथक् कुर्यात् सूतं प्रक्षाल्य काञ्जिकैः ।
 ततः क्षिप्वा रसं खल्वे रसादद्धञ्च सैन्धवम् ॥
 मर्दयेन् निम्बूकरसैर्दिनमेकं निरन्तरम् ।
 ततो राजी रसोनश्च मुख्यश्च नरसारकः ॥
 एतै रससमैस्तद्बद्ध सूतो मर्दयस्तुषाम्बुना ।
 ततः संशोष्य चक्राभं कृत्वा लिप्त्वा च हिङ्गुना ॥
 द्विस्थालीसंपुटे धृत्वा पूरयेत्सुवर्णैश्च ।
 अधः स्थालीं ततो मुद्रां दद्याद् दृढतरां बुधः ॥
 विशोष्याग्निं विधायाधो निषिञ्चेदम्बुनोपरि ।
 ततस्तु कुर्यात् तीव्राग्निं तदधः प्रहरत्रयम् ॥
 एवं निषिच्य यात्पूद्ध रसो दोषविवर्जितः ।
 अथोद्ध स्थालिकामध्ये लग्नो ग्राह्यो रसोत्तमः ॥

Another easy process of absolute purification of mercury.

Mercury, kept inside a crucible made of rye and garlic, is to be boiled in kanji for three days by means of a Dola Jantram. It is to be rubbed for one day each with the following : juice of kanya, decoction of chitraka, juice of kakamachi, and decoction of triphala. The mercury is then to be washed off with kanji, and rubbed for one day incessantly with half its quantity of saindhava, and a sufficient quantity of lime juice. It is then to be rubbed with kanji, rye, garlic, lakucha, and narasara ; made into a cake ; coated all over with hingu, and then dried. The cake is to be put into a samputam consisting of one earthen vessel and one earthen basin placed upon it, the vessel being filled with salt. The joint is then to be closed very tightly. The apparatus is to be placed upon fire and water is to be put into the basin, as usual. Mercury sublimates and gets itself deposited inside the basin. This mercury is free from all defects and may be used for all purposes.

(१०) अथ रसस्य घ्रासनम् (धातुभोजनम्)

(एतदस्य दशमः संस्कारः) ।

अजारयन्नभ्रं च हेमगन्धं

वाञ्छन्ति सूतात् फलमप्युदारम् ।

क्षेत्रादनुत्तादपि शस्यजातं

कृषीवलास्ते भिषजश्च मन्दाः ॥

तुल्ये तु गन्धके जीर्णे शुद्धाच्छतगुणो रसः ।
 द्विगुणे गन्धके जीर्णे सर्वकुष्ठहरः परः ॥
 त्रिगुणे गन्धके जीर्णे सर्वजाड्यविनाशनः ।
 तत्र चतुर्गुणे जीर्णे बलीपलितनाशनः ॥
 गन्धे पञ्चगुणे जीर्णे नित्यं चयहरो भवेत् ।
 षड्गुणे गन्धके जीर्णे सर्वरोगहरो रसः ॥
 अवश्यमित्युवाचेन्द्रं देवः श्रीभैरवः स्वयं ।
 गन्धपिष्टिकया तत्र गोक्षः स्याद् गन्धजारणे ॥ *
 यथा स्याज्जारणा वह्नौ तथा स्याद् गुणदो रसः ।
 तस्माच्छतगुणो व्योमसत्त्वे जीर्णे तु तत्समे ॥
 ताप्यस्वर्परतालादिसत्त्वे जीर्णे गुणाधिकः ।
 हेमि जीर्णे सहस्रं कगुणसंघप्रदायकः ॥
 वज्रादिजीर्णसूतस्य गुणान् वेत्ति शिवः स्वयम् ॥

(10) *The grasanam (or swallowing of metals) of mercury (i. e. the tenth mercurial operation).*

Those physicians who expect good results from mercury without letting it swallow mica, gold, and sulphur, are as bad as farmers who expect crops from a field which has not been sown.

The potency of pure mercury increases hundred times, if it is made to consume an equal quantity of pure sulphur. Mercury can cure all sorts of leprosy,

* जारणाख्ये यन्त्रे वह्निसंयोगाद् गन्धकजारणा प्रसक्ता ।
 यन्त्राध्याये चान्यत्र सविस्तरं वर्णितेषां प्रक्रिया ।

if it is made to consume double its quantity of sulphur ; it cures all sorts of inertness, if it is made to consume three times its weight of sulphur ; it cures premature falling of teeth and greyness of hair, if it consumes four times its weight of sulphur ; it cures consumption, if it consumes five times its weight of sulphur ; and it cures all sorts of diseases, if it is made to consume six times its weight of sulphur *

All this was said by Mahadeva himself to Indra, (the king of Svarga). If sulphur is to be consumed by mercury, it is first of all to be brought in contact with mercury. The potency of mercury increases according to the number and quantity of metals and semi-metals it consumes.

Mercury increases in potency by hundred times, if it consumes an equal quantity of mica (purified and reduced to ashes) ; it becomes more efficacious if it is made to consume the essences of makshika (pyrites), kharpara, and haritala ; it acquires a thousand attributes if it is made to consume gold, and Siva alone knows the qualities of mercury which has consumed diamond and other similar gems (such as Vaidurya etc.)

(क) रसस्य प्रथमो प्रासजविधिः ।

वज्रकण्टकवज्राङ्गं विद्धमष्टाङ्गुलं सृदा ।

विलिप्य गोविशल्यामौ पुटितस्तत्र शोधितः ॥

* For the best process of consuming of sulphur by mercury, see Jarana Jantram under apparata.

श्रयहं वज्रं विनिक्षिप्तो प्रासार्थी जायते रसः ।
प्रसते गन्धहेमादि वज्रसत्त्वादिकं क्षणात् ॥

(c) *The first process of swallowing of metals, etc., by mercury.*

A hole, eight angulis in length, is to be cut in the strong and thorny branch of a hajra tree into which will be put mercury, well covered with mud, and heated for three days by means of fire made of dried cowdung. This mercury becomes capable of swallowing sulphur, gold, essence of diamond, etc., in a very short time.

(क) रसस्य द्वितीयो प्रासविधिः ।

त्रिगुणमेव रसेन्द्रमेकमंशं कनकपयोधरतार-
पङ्कजानां ।
रसगुणबलिभिर्विधाय पिष्ट्वा रचय निरन्तरम-
म्बुभिः कुमार्याः ॥
पङ्गुणबलिजीर्णोऽयं रसः पिष्ट्याः समुत्थितः ।
प्रसति वज्रहेमादि प्रासार्थी जायते सदा ॥

(b) *Second process of swallowing of metals by mercury.*

Three parts of mercury, and one part each of gold, mica, and silver (all of these properly purified and reduced to ashes), with sulphur six times in weight of mercury, are to be rubbed together with the juice of kanya and made into a cake. The mercury which is

obtained from the cake, and which has consumed six times its weight of sulphur, becomes capable of swallowing diamond, gold, and other metals.

(ग) रसस्य तृतीयो प्रासनविधिः ।

सतुत्पटङ्गणास्वर्जि पटुताम्रे अथहोषितम् ।
काञ्जिकं रसगन्धयोर्भावनाथं नियुज्यते ॥
अथवा सविद्धः सूतः काञ्जिके तु निमज्ज्यते ।
प्रसति सूतराजोऽयं वज्रघनलुहादिकम् ॥

(c) *Third process of swallowing of metals by mercury.*

Mercury and sulphur are to be subjected to bhavana with kanji which has been for 3 days in a copper pot with tuttham, tanganam, and swarji kshara. Mercury may also be immersed with bida in kanji. Mercury thus qualified, is capable of swallowing diamond, mica, and other metals.

(घ) रसस्य चतुर्थो प्रासविधिः ।

शङ्खचूर्णं रविक्षीरैश्चातपे भावयेद्दिनम् ।
तद्वज्रम्बीरजैर्द्रवैर्दिनैकं धूमसारकम् ॥
सुवर्चलमजामूत्रैः काथ्यं यामचतुष्टयम् ।
कण्टकारी च संकाथ्या दिनैकं नरमूत्रकैः ॥
सर्जिद्वारस्तिन्तिङ्गीकं कासीसञ्च शिलाजतु ॥
जम्बीरोत्थद्रवैर्भाव्यं पृथग् यामचतुष्टयम् ॥

५२ पालस्त्वचा हीनो मूलकानां द्रवैर्दिनम् ।
 सैन्धवं टङ्गणं गुञ्जा शिग्रु मूलद्रवैर्दिनम् ॥
 एतत् सर्वं समांशेन मर्द्यं जम्बीरजैर्द्रवैः ।
 तद्गोलं रक्षयेद् यत्नाद्विडोऽयं वडवानलः ॥
 प्रसते मर्दितः सूतो ह्यनेन तप्तखल्लके ।
 स्वर्णाभ्रादीनि लोहानि यथेष्टानि च जारयेत् ॥

(a) *Fourth process of swallowing of metals by mercury.*

(1) Powdered conch shell, (2) soot, (3) subarchala salt, (4) kantakari, (5) sarji kshara, (6) tintidi bark, (7) kasisa, (8) silajatu, (9) jayapala seeds (stript of husks), (10) saindhava salt, (11) tangana, and (12) gunja seeds are to be subjected to bhavana for one day with (1) milk of arka plant, (2) lime juice, (3) goat's urine, (4) man's urine, (5) lime juice, (6) ditto, (7) ditto, (8) ditto, (9) juice of mulaka, (10) juice of sigru roots, (11) ditto, and (12) ditto, respectively.

All of them are then to be put together and rubbed for one day with lime juice and made into a lump. Mercury, rubbed with this mixed substance in a hot mortar, swallows a sufficient quantity of gold, mica, and other metals.

विडोऽन्यविधिः ।

मूलकाद्रकवहीनां चारं गोमूत्रलाहितम् ।
 वज्रपूतं द्रुतं प्राह्यं गन्धकं तेन भावयेत् ॥
 शतवारं खरे घर्मे विडोऽयं हेमजारणो ॥

Another kind of *bida*.

Gandhaka (sulphur) is to be saturated for a hundred times with a solution made of mulaka, ardraka, and chitraka—all burnt into ashes, then, dissolved in cow's urine, and dried each time by being exposed to the intense heat of the sun. Mercury, rubbed with this gandhaka, is competent to swallow gold, etc. The gandhaka, thus prepared, is called a *bida*.

विडोऽन्यविधः ।

गुञ्जासैन्धवयोश्चूर्णं देवदालीदलद्रवैः ।
 टंकणं किंशुकरसैर्जम्बीराम्लेन चलिकाम् ॥
 मूलकक्षारगोमूत्रप्रसादेन च गन्धकम् ।
 स्वर्जिकाभूखगव्योषशिग्रू मूलरसेन च ॥
 शतशो भावयेत् सर्वं विडोऽयं वडवानलः ॥

Another kind of *bida*.

(1) Powdered gunja seeds and saindhava salt, (2) tankana, (3) Chulika salt, (4) gandhaka, (5) swarji, (6) earthworm and (7) the trikatu are to be subjected to bhavana for a hundred times with (1) the juice of deodali leaves, (2) juice of kinsuka leaves, (3) lemon juice, (4) mulaka burnt into ashes and dissolved in cow's urine, (5) juice of the root of shigru, (6) ditto, and (7) ditto, respectively.

विडोऽन्यविधः ।

गन्धकं भावयेद् रौद्रे गवामूत्रेण सप्तशः ।
 दग्धशङ्खं शतं भाव्यं शिग्रू मूलरसेन च ॥

प्रतिवारं सुशोष्यं तत् खरे घर्मे प्रयत्नतः ।
 द्वयमेतत् तथा विषं सैन्धवञ्च समांशतः ।
 एतैर्विमर्दितः सूतो ग्रसति सर्वधातुकम् ॥

Another kind of *bida*.

Gandhaka is to be subjected to bhavana in hot sun with cow's urine for seven times; burnt conch shell is similarly to be subjected to bhavana for a hundred times with the juice of shigru roots—it being well-dried every time in hot sun. These two things combined with bisham (aconite) purified, and saindhava, each equal in quantity, form what is called a *bida*. Mercury, rubbed with these things combined, swallows every metal.

विडोऽन्यविधिः ।

टंकणं भावयेत् शतं किंशुकोत्थद्रवैः शतम् ।
 वह्निमुखाख्यको सोऽयं विडस्तु सर्वजारणे ॥

Another kind of *bida*.

Tankana is to be subjected to bhavana for a hundred times with the juice or decoction of kinsuka and well-dried every time in hot sun. This is what is called "fire-mouthed" *bida*, and is fit for swallowing every thing.

विडोऽन्यविधिः ।

वास्तुकैरण्डकदली देवदाली पुनर्णावाः ।
 वासापलाशनिचुलतिलकाञ्चनमोक्षकाः ॥

सर्वाङ्गं खराडशश्छिन्नं नातिशुष्कं शिलातले ।
 दग्धं कारुडं तिलानाञ्च पञ्चाङ्गं मूलकस्य च ॥
 प्लावयेत् मूत्रवर्गेण* जलं तस्मात् परिस्तुतं ।
 लौहपात्रे पचेद् यन्त्रे हंसपाकाग्निना सुधीः ॥
 बाष्पाणां बुद्बुदानाञ्च बहूनामुद्गमो यदा ।
 तदा काशीससौराष्ट्रीक्षारत्रयकटुत्रयम् ॥
 गन्धकश्च सितो हिङ्गलवणानि च षट् तथा ।
 एषां चूर्णं क्षिपेत् यत्नात् लोहकपुटमध्यतः ॥
 सप्ताहं भूगतः पश्चात् धार्य्यस्तु प्रचुरो विडः ।
 (अत्र सकलक्षारैश्च साम्यं तिलकारुडानां) । ●●

Another kind of *bida*.

Bastuka, eranda, kadali, devadali, punarnava, basaka, palasa, nichula (jalabetasa), tila, kanchana, and mokshaka—these are to be cut into pieces and kept upon a stone pot. With these will have to be mixed the burnt tila plant combined with five different factors of a mulaka plant, (*viz.*, its root, stem, flower, seeds, and leaves). All of these drugs will have to

- * गोजाविमहिषीणां तु स्त्रीणां मूत्रं प्रशस्यते ।
 खरोष्ट्रेभनराश्वाणां पुंसां मूत्रं हितं स्मृतम् ॥
- ** क्षर्परं सिकतापूर्णं कृत्वा तस्योपरि क्षिपेत् ।
 तुल्यञ्च क्षर्परं तत्र शनैर्मुद्गमिना पचेत् ।
 पञ्चक्षारं तथा मूत्रं लवणञ्च विडं ततः ।
 हंसपाकं समाख्यातं यन्त्रं तद् वार्त्तिकोक्तमैः ॥

be saturated with all the urines (*i.e.* urines of elephant, camel, ass, horse, and man—all of these male, and those of goat, ram, cow, buffallow—all of these female), and distilled. This distilled water will have to be kept in an iron pot, placed upon an earthen vessel filled with sand, mild fire being applied below the earthen vessel.

Kashisa, saurastri, jabakshara, swarji kshara, tankanam, trikatu, white gandhaka, hingula, and six salts,—all of these are to be powdered and mixed with the heated water, at a time when a sufficient quantity of vapour and froths will arise. The mixture is then to be covered well by means of two iron pots, the joint being tightly closed. This is then to be kept for seven days, inside the earth, well covered with mud. The liquid, thus prepared, is an excellent bida. (The quantity of the three ksharas should be equal to the burnt tila plant).

विडोऽन्यविधिः ।

काशीशं सैन्धवं माक्षी सौवीरं व्योषगन्धकम् ।

सौवर्चलं स्वर्जिका च मालती रससंभवम् ।

शिग्रू मूलरसैः सिक्तो विडोऽयं सर्वजारणः ॥

Another kind of *bida*.

Kasisa, saindhava, makshika, saubira, the trikatu, gandhaka, sauvarchala, sarjika, and juice of malati flowers,—all of these are to be saturated with the juice of the root of sigru and dried. The bida, thus produced, is used in the exhaustion of every metal.

तयान्यविधः ।

गन्धतालकसिन्धूत्थचूलिकाटंकरां तथा ।

क्षारैर्मूत्रैश्च पाचयेत् तदा ज्वालामुखो विडः ॥

Another kind of *bida*.

Sulphur, haritala, saindhava, chulika, and tankanam are to be boiled with *ksharas* and urines. The product is called a *Jwalamukha* (meaning, fire-mouthed) *bida*.

विडवटी ।

खोटकं स्वर्णसंतुल्यं समावत्तन्तु कारयेत् ।

माक्षिकं कान्तपाषाणं शिलागन्धं समं समम् ॥

भूनागैर्मर्द्दयेद् यामं वल्लमात्रं वटीकृतम् ।

एषा विडवटी ख्याता योज्या सर्वत्र जारणे ॥

Bidabati.

Equal quantities of *makshika*, *chumbaka*, and *gandhaka*, are to be rubbed together for three hours with earthworm and made into pills, six ratis in weight. These pills, called *bidabatis*, are used in the exhaustion of all sorts of metals. The quantity of the gold meant to be swallowed by mercury should be equal to the *bidabati*, which is to be rubbed well with the mercury and the gold.

(७) रसस्य पञ्चमो प्रासविधिः ।

चतुःषष्ट्यंशकं हेमपत्रं मायुरमायुना ।

विलिप्तं तप्तखल्लस्थे रसे दत्ता विमर्द्दयेत् ॥

दिनं जम्बीरतोयेन ग्रासे ग्रासे त्वयं विधिः ।
 शनैः संस्वेदयेद् भुर्जे बद्धा सपटकाञ्जिके ॥
 भाण्डके त्रिदिनं सूतं जीर्णस्वर्णं समुद्धरेत् ।
 अधिकस्तोलितश्चेत् स्यात् पुनः स्वद्यः समावधि ।
 द्वात्रिंशत् षोडशाष्टांशक्रमेण वसु जारयेत् ।
 रूप्यादिषु च सत्वेषु विधिरेवंविधः स्मृतः ॥
 चुल्लिकालवणं गन्धमभावे शिखिपित्ततः ॥

(e) *Fifth process of swallowing of metals by mercury.*

Mercury is to be rubbed, for one day, in a hot mortar, with one sixty-fourth part of its weight of gold leaves besmeared with the bile of peacock, all these substances being immersed in lemon juice. The same procedure is to be repeated, if it is intended that the mercury would be required to swallow another morsel of gold (*i.e.* gold weighing another one sixty fourth part of the mercury). After the rubbing is over, the mercury is to be covered with bhurja leaves, kept inside a vessel containing kanji, mixed with salt, boiled for three days. It will then be found that mercury has swallowed the gold with which it was rubbed.* If the weight of the mercury is greater than

* Gold leaves are sometimes used in the preparation of Swarna-sinduram or Makaradhwaaja, etc., but the process how the gold is to be swallowed by the mercury does not appear to be known to the modern chemists who are under a wrong impression that gold cannot be chemically combined with mercury. Instead of making the mercury swallow the gold by one of the processes described here, the modern kavirajas and their followers rub the mercury and

what it was originally, it is again to be boiled until it reverts to its original weight. The quantity of gold to be swallowed by mercury may be increased to one thirty-second part, one sixteenth part, one eighth part, etc. Essences of silver and other metals may also similarly be swallowed by mercury. Chulika salt and gandhaka are to be used only in the absence of peacock's bile.

(च) रसस्य षष्ठो प्रासविधिः ।

शश्वन्मृदम्बुपात्रस्थः शिवजशिकुद्रसंस्थितः ।

पको मूषाजले तस्मिन् रसाष्टांशविडावृतः ।

संरुद्धो लोहपत्रयाथ ध्मातो ग्रसति काञ्चनम् ॥

The eighth process of swallowing of metals by mercury.

Mercury, with one eighth its weight of bida, is to be put into a crucible, strong and well burnt, and is to be closely covered with some metal leaf. The crucible is then to be placed upon a hole at the bottom of an earthen vessel, which contains water, and is to be heated, placed on fire. The mercury, thus heated, is competent to swallow gold.

(छ) रसस्य सप्तमो प्रासविधिः ।

कुण्डाम्भसि लोहमये सविडं सग्रासमीशजं पात्रे ।

अतिचिपिटलौहपत्रया पिधाय संलिप्य वह्निना

योज्यम् ॥ इति कच्छपयन्त्रम् ॥

the gold leaves with sulphur and the prescribed juices ; and thus prepare the compound by means of a Balaka Jantram, failing to have the mercury combined with the gold, which is found separated from the compound. For preparation of Makaradhwaaja, etc., see the next mercurial operation.

The ninth process of swallowing metals, etc., by mercury.

Mercury with *bida* and the metal, etc., meant to be swallowed by the mercury, are to be kept in a metallic bowl containing water. This bowl is to be closely covered with a very broad iron leaf, the joint being carefully plastered and put inside a metallic vessel which is to be heated. Thus heated, the mercury swallows the metal, etc., mixed with it. The apparatus is called a Kachhapa Jantram. (See the chapter on Jantram).

(अ) रसस्य अष्टमो प्रासविधिः ।

बीजपूरफलं गृह्य त्वचमुत्सृज्य कारयेत् ।
 नवसारयुतं सूतं तस्य मध्ये विनिक्षिपेत् ॥
 स्वेदयेद्दोलिकायन्त्रे चाम्लवर्गे दिनत्रयम् ।
 भूनागं तुवरी लोध्रं बासाया नैम्बुकं जलम् ॥
 ह्रीपुष्पं नरशुकं च क्रमेण भावितं रसम् ।
 प्रसते सर्वलोहानि युक्तियोगाद् रसेश्वरः ।
 ब्रह्मं सप्तदिनं वाऽथ चतुर्दशैकविंशतिः ।
 संस्काराः सूतराजस्य श्रेष्ठाः स्युरुत्तरोत्तराः ॥

The eighth process of swallowing of metals, etc., by mercury.

A part of the skin of a bijapura fruit is to be removed and a hole made into it. Put mercury with navasara into this hole (which is to be closed with that part of the kernel and of the skin which were

removed in making the hole, a piece of cloth being also used to cover the whole fruit, if necessary). The fruit is then to be boiled for three days in all sorts of sour vegetable juice. The mercury is then to be subjected to bhavana for one day each with earth worm, tuvāri, lodhra, juice of basaka, lemon juice, menstrual discharge, and semen, respectively. If properly applied, this mercury devours all sorts of metals. Each of the bhavana may be performed for three days, seven days, fourteen days, or twenty one days continuously. The more mercury is subjected to such operations the more does it wax in potency.

(ॐ) रसस्य नवमो ग्रास विधिः ।

कीटिका तिलिनी नाम नवसारोऽथ सूतकः ।
 गृह्यते चूर्ण्यते गाढं सूतको मर्द्ध्यते ततः ॥
 अष्टवासरपर्यन्तं बुभुक्षा पारदे भवेत् ।
 निर्मलोऽपि च निर्दोषः कामकारी भवेद् रसः ॥
 पश्चाच्च जारणं कुर्याद् गन्धादीनां च सूतके ।
 रागग्राही भवेन्नूनं राक्षसः सर्वभक्षकः ॥
 वङ्गवाग्निरयं साक्षात् पारदोऽप्यतिरिच्यते ॥

The ninth process of the swallowing of metals etc. by mercury.

A small worm, named tilini (Bengali, telenga), navasara, and mercury are to be rubbed very well for eight days, causing hunger in mercury. Thus

rubbed, the mercury becomes pure, faultless and giver of all wished for objects. This is then to be used for the purpose of swallowing of sulphur etc. This mercury, which is capable of being coloured, is very powerful, and can swallow every thing like a monster.

(अ) धातुजारणाय दशमो विधिः ।

समर्पितः सैन्धवखण्डकोटरे विधाय पिष्टिं
सिकताख्ययन्त्रे ।
विशुद्धगन्धादिभिरीषदग्निना समस्तमश्रात्य-
शनीयमीशजः ॥

The tenth process of swallowing of metals by mercury.

Mercury, rubbed with pure sulphur etc., and then kept in a cavity made in a piece of saindhava, and heated by a very mild heat by means of a Baluka jantram, is enabled to eat everything fit for being swallowed.

(ट) एकादशो प्रासविधिः ।

कालकूटो वत्सनाभः शृङ्गकश्च प्रदीपनः ।
हालाहलो ब्रह्मपुत्रो हारिद्रः शुक्कस्तथा ।
सौराष्ट्रिकः इति प्रोक्ता विषभेदा अमी नव ॥
अकसेहुखडधुस्तुरलाङ्गलीकरवीरकाः ।
गुआहिफेणमित्येताः सप्तोपविषजातयः ॥
एतैर्विमर्दितः सूतश्छिन्नपद्मः प्रजायते ।
मुखञ्च जायते तस्य धातुंश्च ग्रसते तदा ॥

The eleventh process of swallowing of metals etc. by mercury.

There are nine different kinds of poison, viz., Kalakuta, batsanabha, shringaka, pradipana, halahala, brahmaputra, haridra, shuktaka, and saurastrika ;

There are seven different kinds of semi-poison, viz, arka, sehunda, dhustura, langali, karabira, gunja, and ahiphena.

Mercury rubbed with these poisons and semi-poisons, becomes deprived of its wings (i. e., unable to sublimate), and is provided with a mouth. It can then swallow metals.

(ठ) द्वादशो ग्रासविधिः ।

अथवा त्रिकटुच्चारौ राजी लवणपञ्चकम् ।
 रसोमो नरसारश्च शिग्रुश्चैकत्र चूर्णितैः ॥
 समांशैः पारदादेतैर्जम्बीरस्य रसेन वा ।
 निम्बुतोयैः काञ्चिकैर्वा सोष्णाखल्वे विमर्दयेत् ॥
 अहोरात्रत्रयेण स्याद् रसो धातुचरमुखः ।

The twelfth process of swallowing of metals by mercury.

Mercury is enabled to swallow metals, if rubbed in a hot mortar for seventy two hours, with lime juice, lemon juice, or kanji, and an equal quantity of the following (powdered and combined):—trikatu, two ksharas, rye, five salts, rasona, narasara, and shigru.

ड) त्रयोदशो ग्रासविधिः ।

अथवा विन्दुलीकीटैः रसोमर्द् चत्त्रिवासरम् ।
लवणाम्लैः सुखं तस्य जायते धातुघस्मरम् ॥

The thirteenth process of swallowing of metals by mercury.

Mercury is provided with a mouth swallowing all sorts of metals, if rubbed for three days with binduli insect, salt, and sour vegetable juice.

(ढ) चतुर्दशो ग्रासविधिः ।

सहस्रनिम्बुफलतोयघृष्टो रसो भवेद् वह्नि
सम प्रभावः ।

Fourteenth process.

Mercury rubbed with the juice of a thousand lemon fruits becomes as hungry as fire.

(ण) पञ्चदशो ग्रासविधिः ।

क्षारा मुखकराः सर्वे सर्वे ह्यम्लाः प्रबोधकाः ।

Fifteenth process.

Since ksharas create hunger and amlas (sour vegetable juices) create consciousness (removal of swoon) in mercury, it is to be rubbed with all the ksharas, if it is intended to create hunger in mercury.

(त) षोडशो ग्रासविधिः ।

क्षाराम्लैर्लवणैर्मत्रैर्विषैरुपविषैस्तथा ।
दिव्यौषधिसमूहेन मर्द्दयेद् दिवसत्रयम् ॥

पारदस्य कलांशेन भेषजेन प्रमर्दयेत् ।
अनेन हि प्रकारेण बुभुक्षा जायते रसे ॥

Sixteenth process.

Mercury gets hungry, if it is rubbed for three days, with ksharas, amlas (sour juices), salts, urines, poisons, semi-poisons, and divine herbs (sixty four in number). Each of these things should be one sixteenth in weight of mercury.

धातुजारणायाः क्रमः ।

गन्धकं जारयेत् पूर्व रसे कच्छपयन्त्रके ।
पश्चाद् वै जारयेद् व्योमहेम प्रभृति यद् भवेत् ॥
पश्चान् नागादयः सर्वे जार्य्यते रत्नसंकराः ।
नागं मृतं च पित्तं च समं वै जारयेद् रसे ॥
पूर्वप्रोक्तप्रयोगेण तथा लोहं मृदुश्च वै ।
तथैव च भवेत्ताम्रं मारितं सूक्ष्मतां गतम् ॥
तथा समं मृतं बद्धमतिसूक्ष्मं च तद्रसे ।
क्रमोऽयं विद्यते सर्वजारणासु न संशयः ॥
विना गन्धेन कर्त्तव्या नैव हि धातुजारणा ।
न क्षुधा जायते सूते जरयन्ति न धातवः ॥
तस्माद् गन्धः पुरा जार्य्यः सूतवह्निविवृद्धये ॥

Order of swallowing of metals by mercury.

Gandhaka is first of all to be swallowed by mercury by means of the Kachchapa Jantram. Then are

to be swallowed mica, gold etc. Last of all lead and other metals, etc. are to be similarly swallowed. The following metals, reduced to ashes and each equal in quantity to mercury, may be swallowed by mercury in the order of their occurrence :—lead, brass, iron, copper, and zinc. This is the order in which metals, etc. are to be swallowed by mercury. Metals are not to be swallowed by mercury, unless, sulphur is first of all made to be swallowed ; otherwise, no appetite is roused in mercury. Sulphur is therefore to be swallowed, first of all, for the purpose of increasing the appetite of mercury.

गन्धकजारणस्य प्रथमो विधिः ।

कृतच्छिद्रां समादाय मध्ये सत्पालिकां नवीम् ।
 रसपोटलिकां कृत्वा सुदृढां तत्र धारयेत् ॥
 अष्टादशांशभागेन गन्धकं चूर्णितं भृशम् ।
 घृतशोधितमादाय तत्र दत्ताथ पालिकाम् ॥
 हरिडकोपरि विन्यस्य ह्यधश्चूर्णं सुवर्च्चिकम् ।
 काञ्जिकेन समं दत्त्वा त्रिदिनं स्वेदयेद् रसम् ॥
 तृतीयेऽहनि तं गन्धं पश्यसि हि सुजारितम् ।
 क्रमशो जारयेदित्थं गन्धकं षड् गुणादिकम् ॥

Swallowing of sulphur.

Mercury, with eighteenth part its weight of sulphur, finely powdered and properly purified with ghee (clarified butter), is to be contained in a piece of cloth, securely tied. This bundle is to be placed upon a new

earthen basin having a hole at the centre, the latter being placed upon an earthen vessel containing powdered subarchika mixed with kanji. The vessel is to be subjected to a mild heat for three days, after which the sulphur will be found to have been swallowed.

Thus is to be swallowed gradually sulphur to the extent of six times in weight of the mercury.

राक्षसेश्वरसः ।

समग्रतः कृतं पूर्वं गन्धजारणमुत्तमम् ।

अथ स्त्रीदुग्धकाञ्जीकलवणेन रसेश्वरम् ॥

मर्दयेत् तेन तं गाढं निम्बुकद्रवमिश्रितम् ।

तेनायं जायते सम्यग् रसोऽयं राक्षसेश्वरः ॥

Mercury, the king of monsters.

First of all, mercury is to be made to swallow sulphur in the way just described. Then it is to be rubbed steadily with human milk, kanji, and saindhava salt, mixed with lemon juice. Thus rubbed, mercury becomes hungry like the king of monsters.

गन्धकजारणस्य द्वितीयो विधिः ।

सामुद्रकं द्विखण्डं स्यात् तिलाखण्डस्य मध्यगम् ।

कुर्यात् कुण्डलिकां प्राज्ञो मृन्मयीं तां द्रवीयसीम् ॥

तस्यां च गन्धकं दध्यात् स्थाने स्थाने च चूर्णितम् ।

तदधः पारदं दध्याद्द्वितीयं खण्डमूद्गम् ॥

कुर्याच्च घण्टिकायुक्तं द्वयमेकत्र योजयेत् ।

चुल्लिकायां तदा दध्यात् सरसं तं समुन्नतम् ॥

संहतं मुद्रितं गाढं काचलिप्तं * महोत्तमम् ।
 वह्निसहं वलिं दत्त्वा पश्चाच्चाति सुभक्तितः ॥
 गुरु पूजादिकं कुर्यात् तथा च रसपूजनम् ।
 अधो वह्निर्विधातव्यो मध्ये चोद्धृतं समुद्रतः ॥
 गन्धको जाय्यते शुद्धो यावच्छक्यन्तु सत्वरम् ।
 रसस्तं ग्रसते गन्धं शीघ्रमेव न संशयः ॥
 अनेन विधिना सूतो गंधकं ग्रसते नवम् ।
 क्रमशो जाय्यत इत्थं गन्धको षड्गुणादिकः ॥

Second process.

Two pieces of sea salt are to be hollowed into two pots, each plastered, first of all, with pasted tila (sesamum) and dried, and then with mud on the outside. Purified and powdered sulphur is to be scattered here and there over the inner surface of one of the salt pots, into which is to be kept mercury, the other pot being placed over the first, and the joint closed tightly with cowdung, mud etc. The whole thing is then to be plastered all over with the mixed substance out of which glass is prepared. * It is then to be placed in such a mild fire as to let the glass substance turn into glass. Fire is then to be placed all over the spheroid. Thus heated, the mercury is enabled to swallow the sulphur in a short time. A fresh quantity of sulphur may similarly be swallowed by the very same mercury.

* काचलिप्तमिति पाठान्तरम् ।

* According to another version, it is to be plastered all over with mud mixed with human hair.

गन्धकजारणस्य तृतीयो विधिः ।

जारणायन्त्रयोगेन जारयेद् रसविद् सदा ।
वस्त्रिञ्चैव तथा धातून् कच्छपसंज्ञकेन वा ॥

Third process.

Sulphur and metals are to be caused to be swallowed by mercury by means of the Jarana Jantram or Kachchapa Jantram.

गन्धकजारणस्य चतुर्थोविधिः ।

प्रक्षिप्य तोयं मृत्कुण्डे तस्योपरि शरावकम् ।
सचूर्णं मेखलायुक्तं स्थापयेत्तस्य चान्तरे ॥
रसं क्षिप्त्वा गन्धकस्य रजस्तस्योपरि क्षिपेत् ।
समभागं ततो दद्याच्छरावेण पिधापयेत् ॥
लघीयसीं भस्ममुद्रां ततः कुर्याद् भिषग्वरः ।
आरण्योपलकैः सम्यक् चतुर्भिः पुटमाचरेत् ॥
एवं पुनः पुनर्गन्धं दत्त्वा दत्त्वा भिषग्वरः ।
सम्यक् कुर्वीत सूतस्य यत्नात् षड्गुणजारणम् ॥

Fourth process.

In a vessel containing water an earthen basin is to be placed upon a stand. Mercury is to be kept in this basin, powdered sulphur, equal in quantity to the mercury, being placed upon the mercury. The basin is then to be covered with another earthen basin. The vessel is then to be closed by means of a plaster of ash. It is then to be subjected to putam for four

times by means of cowdung cakes found dried in the pasturage. Mercury is thus gradually to swallow sulphur to the extent of six times its weight.

घनसत्वज्वरणम् ।

घनरहितबीजजारणासंप्राप्तदत्तादिसिद्धि

कृतकृत्याः ।

कृपणाः प्राप्य समुद्रं वराटिकालाभेन सन्तुष्टाः ॥

विनैकमभ्रसत्त्वं नान्योरसपक्षकर्त्तनसमर्थः ।

तेन निरुद्धप्रसरो नियम्यते वध्यते च सुखम् ॥

रक्तं पीतञ्च हेमार्थे कृष्णं हेमशरीरयोः ।

तारकर्मणि तच्छुक्लं काञ्चने तु सदा त्यजेत् ॥

Swallowing of the essence of mica by mercury,

Those chemists who score partial success in mercurial operations, by making mercury swallow gold and other metals minus mica, are as frugal as those divers who, getting at the bottom of the ocean, are satisfied with cowries only. Nothing but the essence of mica can cut the wings of mercury ; hence mercury, when once controlled by mica, can easily be killed. Red and yellow micas are meant for transforming base metals into gold ; black mica is meant for the same purpose, as well as for the purpose of medicines ; white mica is to be made use of in transforming base metals into silver. This last should be avoided in the preparation of gold.

अन्नजारणमादौ गर्भद्रुतिजारणञ्च हेन्नोऽन्ते ।
यो जानाति न वादौ वृथैव सोऽर्थक्षयं कुरुते ॥

Mica is first of all to be swallowed by mercury and then is gold to be similarly swallowed ; and last of all, is to be effected what is called garbhadruti or internal liquefaction of mercury. The chemist who does not know this makes a waste of his money.

(११) अथ रसस्य मूर्च्छना (अस्यैष
दशमः संस्कारः) ।

मर्दनादीष्टभेषजैर्नष्टपिष्टत्वकारकम् ।

मूर्च्छनं ज्ञायते प्राज्ञैः सर्वदोषविनाशनम् ॥

(II) *Swooning of mercury (i. e. the eleventh mercurial operation).*

Rubbing and other acts performed with prescribed drugs leading to the transformation of mercury into a cake-like substance is what is called 'murchhanam', or swooning of mercury. This operation frees mercury from all sorts of evil properties.

—मतान्तरम्—

व्यभिचारं विना रसः व्याधिं हन्ति यदा शुभः ।

सर्वदोषविमुक्तोऽसौ मूर्च्छितो कथितो बुधैः ॥

मूर्च्छनं बहुविधन्तु ज्ञायते रससाधकैः ।

षड्गुणबलिना पाकप्रक्रिया श्रेयसी तथा ॥

(Another version)

Mercury is in a state of swoon, when it succeeds in curing diseases without producing any after-effect. The processes of causing swoon of mercury, as known to the expert chemists, are many ; of all these, heating with six times its weight of sulphur is the best of all.

(Mercury may be brought to a state of swoon, by any of the following and other processes):—

(क) प्रथमो विधिः ।

गन्धकेन रसं प्राज्ञः मुहुरं मर्दयेद् भिषक् ।
 कञ्ज्वलाभो यदा सूतो विहाय धनचापलम् ॥
 दृश्यतेऽसौ तदा ज्ञेयो मूर्च्छितो रसकोविदैः ।
 रोगघ्नमसौ हन्यादनुपानस्य योगतः ॥

(a) First process.

Mercury, duly purified by the foregoing processes, is to be rubbed steadily with (an equal quantity of purified) sulphur ; and in course of this rubbing, it gives up its dense subtleness and assumes a black appearance. (The rubbing is to be made in stone mortar and to be continued till the whole of the mercury is reduced to black dust). It is then said to be in a state of swoon, and is able to cure diseases by being combined with suitable anupanam. (accompaniments).

(ख) द्वितीयो विधिः ।

षड् गुणवलिजारणां विनायं
 न खलु रुजाहरणमो रसेन्द्रः ।

न जलदकलधौतपाकहीनः

स्पृशति रसायनतामिति प्रसिद्धिः ॥

कुपीकोटरमागतं रसगुणैर्गन्धं तुलायां विभुं
विज्ञाय ज्वलनं क्रमेण सिकतायन्त्रे शनैः पाचयेत् ।
वारंवारमनेन बह्विविधिना गन्धक्षयं साधयेत्
सिन्दुरद्यूतितोऽनुभूय भणितः कर्मक्रमोऽयं शुभः ॥ ९

(b) *Second process.*

Mercury is not able to cure diseases promptly without consuming six times its weight of sulphur. Neither can it be effective in preventing disease and old age, if it is not combined chemically with mica and gold (both reduced to bhasma or ashes). *

Mercury (properly purified) is to be rubbed with six times its weight of sulphur (purified), and put into a glass bottle or flask, which is to be placed in a Baluka Jantram, and properly heated. The heating is to be continued till the surplus sulphur is burnt out and the compound assumes the appearance of red vermilion (noticeable from outside the flask).

* रसमन्तरेण सिक्कलगन्धान्यामपि सिन्दूरं सम्पाद्यन्न सिक्कल-
परिमाणं रसस्य द्विगुणम् । अत्र षड्गुणगन्धकेन सह रसस्य
सिन्दुरपाकः कथ्यते । अनेकेषु प्रकारेण षड्गुणबलिजारणा न
सम्पद्यते ॥

* The general rule is not to use any metal for medicinal purposes without purifying and reducing it to ashes. Mercury may, however, be made use of, after it passes through all the stages up to "swoon". Sulphur may be used after purification.

N. B. The compound, thus prepared, is what is called *Rasa sindura*, prepared with six parts of sulphur. This compound can be used in all sorts of diseases with suitable *anupanam* (accompaniment). The compound, thus prepared, is however to be distinguished from mercury exhausted with six times its weight of sulphur.

(ग) तृतीयो विधिः ।

त्रिगुणमिहरसेन्द्रमेकमंशं कनकपयोधरतार-

पङ्कजानां ।

रसद्युग्मबलिभिर्विधाय पिष्ट्वा रचय

निरन्तरमम्बुभिः कुमाय्याः ॥

(c) *Third process.*

Three parts of mercury, and one part each of gold, mica and silver (all of these properly purified and reduced to ashes), with sulphur six times in weight of mercury, are to be rubbed together with the juice of kanya and made into a lump, which is to be roasted properly by means of a *Baluka Jantram*.

(घ) चतुर्थो विधिः ।

सूतप्रमाणां सिद्धाख्यपट्टे

दत्त्वा बलिं मृदुघटितेरूपभाण्डे ।

तैलावशेषेऽत्र रसं निदध्यात्

ममाद्धं कायं प्रविलोक्य भूयः ॥

आषड् गुणां गन्धकमल्पमल्पं
 क्षिपेदसौ जीर्णवलिर्बली स्यात् ।
 रोगेषु सर्वेषु नियोजितोऽय-
 मसंशयं हन्ति गदं जवेन ॥
 नागादिशुल्वादिभिरेषः पिष्टः
 रोगेषु सर्वेषु प्रयुज्यते हि ॥

(d) Fourth process.

Into a small earthen pot, placed on a Baluka Jantram, put sulphur, equal in quantity to mercury. On the sulphur being reduced to a liquid, put the mercury also into the pot. As soon as the sulphur will be found reduced to half the level of the mercury, put more sulphur into the pot. This is to be done again and again, till the total quantity of sulphur, being six times in weight of the mercury, is consumed. This mercurial compound, which consumes six times its weight of sulphur, becomes very powerful. It is efficacious in all sorts of diseases, and may be used in all sorts of diseases by being mixed with lead, copper etc., (purified and reduced to ashes).

(क) पञ्चमो विधिः—सर्वरोगहरी कर्पूरप्रक्रिया ।

स्थाल्यां दृढघटितायामद्धं परिपूर्य्य तुर्य्यलवणांशै-
 रक्तेष्टकारजोभिस्तदुपरि सूतस्य तुर्य्यांशम् ।
 सितसैन्धवं निधाय स्फटिकारिं तत्समञ्च तस्योद्ध्वं ।
 स्फटिकारिधवलसैन्धवशुद्धरसैः कणायाम्बुपरिघृष्टैः

कृत्वा पर्पटमुचितं ॥ तदुपथ्योधाय तद्देव पुन स्फटि-
कारिसैन्धवरसं दद्यादितः स्वलतो रसस्य लाभाय
तदुपरि स्वर्परखण्डकान् धृत्वा परया दृढस्थारुधा-
च्छाय मुद्रयित्वा दिवसत्रितयं विपचेद्विधिना ॥

(ननानुक्रमपि मल्लतकं वदति बुद्धाः पारदतुल्यम् ।)

(e) *Fifth process—preparation of a camphor-like compound, which cures all diseases.*

The lower half of a strong earthen pot is to be filled with the following:—powdered saindhava, one fourth in quantity of mercury. Upon that, red brick powder, upon that, white saindhava powder, each one fourth in quantity of mercury; and upon that, powdered alum, equal in quantity to each of the above. Upon all of these is to be superposed a paste made of alum, white saindhava, and purified mercury, rubbed with the juice of kanya. The arrangement is to be repeated in filling in the second half of the pot (*i. e.*, saindhava, red brick powder, white saindhava, alum, and last of all, a paste made of alum, saindhava, and mercury). At the top of all these layers is to be placed broken pieces of earthen pots in order to stop the escape of surplus mercury out of the pot, which is then to be closely covered with a strong earthen basin, the joint being carefully cemented, and the pot being kept on fire for 3 days.

N. B. It is usual with the expert chemists to make use, in this case, of bhallataka, one fourth in quantity of mercury, although it is not mentioned in the original text.

(च) षष्ठोविधिः (रससिन्दूरम्) ।

भागो रसस्य त्रय एव भागा गन्धस्य माषः
पवनाशनस्य । संमर्दय गाढं सकलं सुखल्ले तां
कज्ज्वलीं काचघटे निदध्यात् । संरुध्य मृत्कर्पटकै
र्घटीं तां मुखे सचूर्णा खटिकाञ्च दत्त्वा । क्रमाग्निना
त्रीणि दिनानि पक्त्वा तां वालुकायन्त्रगतां ततः
स्यात् ॥ वन्धूकपुष्पारुणामीशजस्य चूर्णं प्रयोज्यं
सकलामयेषु । निजानुपानैर्मरणां जराञ्च हन्त्यस्य
वल्लकमसेवनेन ॥

(f) Sixth process (*Rasasinduram* or red
compound of mercury).

One part of mercury, three parts of sulphur, and one eighth part of lead (reduced to ashes)—all of these are to be rubbed steadily in a good mortar, and the black mixture, thus prepared, is to be put inside a glass flask, the mouth of which is to be closed by means of a piece of chalk and lime. The flask is, then to be well plastered with rags mixed with mud. It is next to be heated by means of a Baluka Jantram for 3 days by fire gradually increasing. The red compound of mercury thus prepared can be used with suitable *anupanam* (accompaniment) in all sorts of diseases. It prevents premature old age and death. Dose 3 ratis a day.

अन्यविधम् ।

पलमात्रं रसं शुद्धं तावन्मात्रन्तु गन्धकम् ।
 विधिवत् कज्ज्वलीं कृत्वा न्यग्रोधाङ्कुरवारिभिः ॥
 भावनात्रितयं दत्त्वा स्थालीमध्ये निधापयेत् ।
 विरच्य कवचीयन्त्रं बालुकाभिः पिधापयेत् ॥
 दद्यात् तदनु मन्दाग्निं भिषग् यामचतुष्टयम् ।
 जायते रससिन्दूरं तरुणादित्यसन्निभम् ॥
 अनुपानविशेषेण करोति विविधान् गुणान् ॥

A different method of preparing Rasasinduram.

A Kajwali (black sulphide of mercury) is to be duly prepared by rubbing one palam of mercury with an equal quantity of sulphur. This is to be subjected to a bhábaná for three times with the juice of the aerial roots of a banyan tree, and put inside a pot closely covered. This pot is then to be placed in a Kabachí Jantram, and subjected to mild heat for twelve hours (by means of a Baluka Jantram.) The product is Rasasinduram, resembling the rising sun in colour. It is used in various diseases with suitable *anupanam* (accompaniment).

अन्यविधम् ।

पृथक् समं समं कृत्वा पारदं गन्धकं तथा ।
 नरसारं धूमसारं स्फटिकं याममात्रकम् ॥
 निम्बुरसेन संमर्द्दथ काचकूप्यां निवेशयेत् ।
 पाषाणखटिकां मुखे दत्त्वा मुद्रां प्रलेपयेत् ॥

सप्तभिर्मुक्तिकावल्गैः पृथक् संशोष्य वेष्टयेत् ।
 सच्छिद्रायां मृदः स्थाल्यां कूपिकां तां निवेशयेत् ॥
 पूरयेत् सिकतापूरैरागलं मतिमान् भिषक् ।
 चूल्यां निवेश्य पावकं मन्दं मध्यं खरं क्रमात् ॥
 प्रज्वाल्य द्वादशं यामं स्वाङ्गशीतं समुद्धरेत् ।
 स्फोटयित्वा तु मुक्ताभमूर्च्छं लघ्नं वलिं त्यजेत् ॥
 अधःस्थं रससिन्दूरं सब्वरोगेषु योजयेत् ॥

Another method of preparing Rasasinduram.

Mercury, sulphur, narasara, dhumasara (soot), and sphatikari are to be taken in equal quantities, rubbed for three hours with lemon juice, and put into a glass flask, the mouth of which is to be stopped by a piece of stone. The flask is then to be covered for seven times with rags mixed with mud, dried up every time, and put into an earthen vessel having a small hole at the bottom. The vessel is to be filled in with sand up to the neck, and placed over fire to be kept burning for thirty six hours. The flask is to be broken open, when cooled, and Rasasinduram deposited at the bottom to be collected, rejecting the pearl white sulphur, accumulated higher up in the flask. The Rasasinduram, thus prepared, may be used in all sorts of diseases.

—मतान्तरम्—

सिन्दूररसः ।

संशोधितं रसेन्द्रञ्च तदूर्ध्वं शुद्धगन्धकम् ।

तयोः कज्जलिकां कुर्याद्दिनमेकं विमर्दनात् ॥

मृत्तिकां वाससा साद्धं कुट्टयेदतियत्नतः ।
 तथा वारत्रयं सम्यक् काचकूर्पीं प्रलेपयेत् ॥
 मृत्तिकां शोषयित्वा तु कूप्यां कज्ज्वलिकां क्षिपेत् ।
 तां कूर्पीं बालुकायन्त्रे स्थापयित्वा रसं पचेत् ॥
 अग्निं निरन्तरं दद्याद् यावद्दिनचतुष्टयम् ।
 गृहीयाद्दूधं संलभं सिन्दूरसदृशं रसम् ॥

Another process—Sindura-rasa.

Purified mercury and half the quantity of sulphur are to be rubbed together for one day and made into a black powder, which is to be put into a glass flask, the external surface of which has already been well-plastered with pieces of cloth and mud for 3 times and dried each time. The flask is now to be put into a Baluka Jantram and subjected to continuous heating for four days. The red compound of mercury deposited at the upper part of the flask is to be collected.

(छ) सप्तमो विधिः—कर्पूररसः (श्वेतरसः) ।

शुद्धसूतसमं कुर्यात् प्रत्येकं गैरिकं सुधीः ।
 इष्टिका खटिका तद्वत् स्फटिका सिन्धुजन्म च ॥
 बलमीकं लवणं क्षारी भाण्डरञ्जकमृत्तिका ।
 सर्वाण्येतानि संचूर्ण्य वाससा चापि शोधयेत् ॥
 एभिश्चूर्णैर्विमर्दयेत् सूतं यामचतुष्टयम् ।
 तच्चूर्णसहितं सूतं स्थालीमध्ये परिक्षिपेत् ॥

तस्याः स्थाल्या मुखे स्थालीमपरां धारयेत् समाम् ।
 सप्तधा मृत्तिकावस्त्रैर्मुद्रयेदनयोर्मुखम् ॥
 सम्यग्विशोष्य मुद्रां तां चुल्ल्यां स्थालीं
 विधारयेत् ।

अग्निं निरन्तरं दद्याद् यावद्दिनचतुष्टयम् ॥
 शनैरुद्घाटयेद् यन्त्रमूद्धं स्थालीगतं रसम् ।
 कर्पूरनिभनिर्मलं गृहीयाद् गुणावत्तरम् ॥
 तद् वकुसुमचन्दनकस्तूरीकुङ्कुमैर्युतम्
 ध्रुवं हरस्युपदंशं व्याधिं सोपद्रवं सपदि ।
 विन्दतिवह्नेर्दीप्तिं पुष्टिं वीर्यं बलं विपुलम् ।
 रमयति रमणीशतकं रसकर्पूरस्य सेवकः सततम् ॥

Seventh process—Karpura-rasa (or Sweta-rasa).

Purified mercury is to be rubbed for twelve hours with an equal quantity of each of the following, finely powdered and sifted through a piece of cloth:—gairika, brick, chalk, sphatikari, saindhava, mud created by white ants, kshari salt, and mud for dyeing earthen pots. The whole thing is then to be put into a pot covered with another of the same magnitude, the joint being closed seven times with rags mixed with mud. When perfectly dried, the pot will have to be put on fire, which is to be kept ablaze for 96 hours at a stretch. The camphor-white mercurial compound, found deposited at the upper pot, will then have to be procured very carefully. This karpura-

rasa, or white mercury, if taken with cloves, sandal, musk, and saffron, brings about a quick cure of syphilis with complications, increases appetite and semen ; and imparts nutrition, strength, etc. One who takes the medicine at regular intervals acquires ability to enjoy a hundred women.

मतान्तरम् - रसकर्पूरम् ।

टङ्गणामधुलाक्षकगुञ्जोर्णसंयुतो रसः ।
 मर्दितो भृङ्गजद्रावैदिनं संपुटमागतः ॥
 ध्मातो मूर्च्छामवाप्नोति रसकर्पूरसंज्ञकः ।
 हरते विविधान् आधीननुपानस्य योगतः ॥

Another process—Rasakarpuram.

Mercury is to be rubbed for one day with an equal quantity of tangana, madhu (honey), laksha (lac), ram's fur, gunjá, and a sufficient quantity of the juice of bhringaraja, and then put into a pot well covered with another, and heated (exactly in the same way as described in the foregoing process). Thus heated, the mercury assumes the appearance of camphor, and is then found efficacious in many diseases, if given with suitable *anupanam*.

—मतान्तरम्—

सुधानिधिरसः—श्वेतरसः अथवा रसकर्पूरम् ।

पिष्टं पांशुपटुप्रगाढममलं वज्रशङ्खुजादेवैः
 सूतं धातुगतं खटीकवर्धितं संपुटे रोधयेत् ॥

अन्तःस्थं लवणस्य तस्य च तले प्रज्वाल्य वह्निं दृढं
 घस्रं ग्राह्यमथेन्दुकुन्दधवलं भस्मोपरिस्थं शनैः ॥
 तद्वल्लद्वितयं लवणसहितं प्रातः प्रभुक्तं नृणाम् ।
 ऊर्ध्वं रेचयति द्वियाममसकृत् पेयं जलं शीतलम् ॥
 एतद्धन्ति च वत्सरावधि विषं षाण्मासिकं
 मासिकम् ।

शैलोत्थं* गरलं मृगेन्द्रकुटिलोद्भूतेश्च तात्-
 कालिकम् ॥

*Another process—Sudhanidhi-rasa, sweta-rasa, or
 rasa karpuram (white mercury).*

Purified mercury is to be rubbed steadily with pansu salt, saindhava (rock salt), and the juice of bajri, and put into an iron pot the mouth of which is to be closed tightly. The pot is then to be put inside a vessel filled with salt, which is to be placed upon a strong fire. When cooled, the moon-white mercury is to be found deposited upon ashes. If, taken in the morning, with powdered cloves (one fourth of a tola in weight) by two ballas a day, it causes purgation within six hours. Cold water is to be taken after taking the medicine. If taken regularly, it removes many kinds of poison from the system.

* एतदेव मलयाचलजं ब्रह्मपुत्राख्यं विषम् । तथाहि भाव-
 प्रकाशे “ब्रह्मपुत्रः स विषेयो जायते मलयाचले ।”

(अ) अष्टमो विधिः ।

पीतरसः सर्वाङ्गसुन्दररसो वा ।

मद् येद् रसगन्धौ च हस्तिशुण्डिद्रवैर्दृढम् ।
 भूधात्रिकारसैर्वापि पर्यन्तं दिनसप्ततः ॥
 विघृष्य बालुकायन्त्रे मूषायां सन्निवेशयेत् ।
 दिनमेकं दहेदग्नौ मन्दं मन्दं निशावधि ॥
 एषं निष्पद्यते पीतः शीतः सूतस्तु गृह्यते ।
 पर्णखण्डेन तद्गुञ्जां भक्षयेद् यत्नतः शुचिः ॥
 चुद्रोधं कुरुते पूर्वमुदराणि विनाशयेत् ।
 जराणां नाशनः श्रेष्ठस्तद्वत् श्रीसुखकारकः ॥
 हृदयोत्साहजननः सुरूपतनयप्रदः ।
 वलप्रदः सदा देहे जरानाशनतत्परः ॥
 अङ्गभङ्गादिकं दोषं सर्वं नाशयति क्षणात् ।
 एतस्मान्नापरः सूतो रसात् सर्वाङ्गसुन्दरात् ॥

*Eighth process—Sarbangasundara-rasa or Pita-rasa
(yellow mercury).*

Equal quantities of mercury and sulphur are to be rubbed steadily for seven days with the juice of hastishundi or bhudhatri. Then the compound, put in a crucible, is to be placed in a Baluka-Jantram and subjected to a mild heat for 24 hours. Mercury thus turns yellow and is to be taken out, when cooled. Dose—one gunja to be taken with betel leaf. It increases appetite and cures all sorts of diseases. It

prevents the arrival of premature old age and gives rise to riches and happiness. It gives enthusiasm, beauty, and children.

(३) नवमोविधिः—कृष्णरसः ।

धान्याभ्रकं रसं तुल्यं मारयेन्मारकद्रवैः ।

दिनैकं तेन कलकेन वस्त्रं लिप्त्वा तु वर्तिकाम् ॥

तैलैर्विलिप्य वर्त्ति तामेरगडोत्थैः पुनः पुनः ।

प्रज्वाल्य चाज्यभाण्डे तद् गृहीयात् पतितञ्च यत् ॥

कृष्णरसो भवेत् तञ्च पुनर्मर्मद्यं नियामकैः ।

दिनैकं पातयेद् यन्त्रे कन्दुकास्थे न संशयः ॥

योज्योऽयं सर्वरोगेषु ह्यनुपानस्य योगतः ॥

Ninth process—Krishna-rasa. (black mercury).

Dhanya abhra * and an equal quantity of mercury are to be rubbed for one day with the juice of *maraka* drugs (i. e. drugs † which help the killing of mercury). A piece of cloth is then to be soaked with the mixture. When dried, the rag is to be steeped again and again in castor oil, and made into a candle, which is to be kept in an earthen vessel soaked with clarified butter, and lighted. The black substance deposited in the vessel will have to be rubbed again with the juice of the *maraka* drugs referred to above, and subjected for one day to sublimation by means of a Kanduka Jantram. This

* Finely powdered mica. For preparation, see Vol. II. under mica.

† These will be named later.

black mercury can be used in all sorts of diseases with suitable *anupanam*.

—मतान्तरम्—

पर्यदीलङ्को रसः ।

लौहपात्रेऽथवा ताम्रे पलैकं शुद्धगन्धकम् ।
 मृदभिना द्रुते तस्मिन् शुद्धसूतपलत्रयम् ॥
 द्विप्वाथ चाक्षयेत् किञ्चिन्नौहदर्व्या पुनः पुनः ।
 गोमये कदलीपत्रं तस्योपरि च ढाक्षयेत् ॥
 इत्येवं गन्धबन्धन्तु सर्वरोगेषु योजयेत् ॥

Another preparation of black mercury.

Parpati-Rasa.

One palam of dried sulphur is to be kept in a pot made of iron or copper, and heated by a mild fire. When the sulphur will melt, three palams of mercury will have to be put into it, and constantly turned, by means of an iron ladle. When both the substances will be commingled, the mixed substance will have to be poured upon a piece of banana leaf, stretched upon some fresh cowdung, and pressed lightly, by means of a lump of fresh cowdung contained in another piece of a banana leaf. When cooled and solidified, the black mercury may be used in all sorts of diseases (with suitable *anupanam*, of course).

(अ) दशमो विधिः ।

रसतालकः ।

रसो गन्धस्तालकश्च रक्तशङ्खी समांशतः ।
संमद्दर्थं सिकतायन्त्रे पचेद् यामचतुष्टयम् ॥
पीताभं जायते पाकाद् रसतालकसंज्ञितम् ।
ज्वरघ्नं दीपनं वह्ने वीर्य्यस्तम्भनमुत्तमम् ॥
हन्यष्टादशकुष्ठानि विविधं वातशोणितम् ।
बल्यमायुष्करं मेघ्यं परमेतद् रसायनम् ॥

Tenth process—Rasa-talaka.

Mercury, sulphur, orpiment, and red arsenic are to be taken in equal quantities, rubbed together for some time, and then put into a glass flask and subjected to heat for twelve hours, by means of a Baluka Jantram (in the same manner as in the case of Rasa-sinduram etc). The product is of an yellow appearance, and is called Rasa-talaka (*i. e.* mercury combined with orpiment). It cures fever, increases appetite, and the power of retention of semen, cures eighteen different kinds of leprosy and *bataracta*. It serves as a tonic, increases longevity, and retentive faculties, and prevents premature old age and diseases.

(इ) एकादशो विधिः । मकरध्वजः ।

स्वर्णभस्म * पलञ्चैव रसेन्द्रश्च पलाष्टकम् ।

रसस्य द्विगुणं गन्धं तेनैव कज्ज्वलीकृतम् ॥

* स्वर्णदलमिति पाठो असाधुः रसरत्नसमुच्चये हि पार-
दस्य मूर्च्छाविधौ लिखितम् मृतेर्लोहिर्मर्दितं विपचेद् रसमित्यादि ।

कुमारिकारसैर्भाष्यं काचपात्रे निधापयेत् ।
 वालुयन्त्रे च संस्थाप्य क्रमाद् दिनत्रयं पचेत् ॥
 खान्निशीतं समादाय पुष्पाकृणारजःसमम् ।
 यवमात्रं प्रदातव्यमहिवल्लीदलेन च ॥
 एतदभ्यासतश्चैव जरामरणनाशनम् ।
 अनुपानविशेषेण करोति विविधान् गुणान् ॥
 ज्वरं त्रिदोषजं घोरं मन्दाग्नित्वमरोचकम् ।
 अन्यांश्च विविधान् रोगान् नाशयेन्नात्र संशयः ॥

Eleventh process—Makaradhawa.

One palam of gold, purified and reduced to ash, eight palas of mercury, and sixteen palas of sulphur are to be rubbed with the juice of kanya, and made into a black powder and dried. The powder is then to be put into a glass flask, placed in a Baluka Jantram, and heated for three days. The pollen-like red dust is to be procured, when the apparatus gets completely cooled. Dose, one jaba to be given with betel leaf, (in case of fever). If taken regularly, it prevents premature old age and death, and produces many effects, if taken with suitable *anupanam*. In

तथाहि रसेन्द्रचिन्तामणौ न जलद्वकलघौतपाकहीनः स्पृशति रसायन-
 कामित्यादिः (१०१ पृष्ठम् द्रष्टव्यम्) । जलदमत्राभ्रमस्म तथैव
 कलघौतं स्वर्णमस्म । नास्त्यत्र सन्देहः । अत्रादीबुभुक्षितपारदेन
 यथाविधि स्वर्णमस्म प्रासयितव्यम् तदा स्वर्णगर्भोऽयं रसो गन्धकेन
 सह यथाविधि मर्हनीयः ।

particular, it cures all sorts of fever, loss of appetite, and aversion to food.

(४) द्वादशो विधिः—स्वर्णसिन्दूरम् ।

पलं रसेन्द्रस्य च गन्धकस्य
हेम्नोऽपि कर्षं परिगृह्य सम्यक् ।
वटप्ररोहस्य रसेन यामं
यामं विमहर्थाथ कुमारिकायाः ॥
तत् काचकूप्यां निहितं प्रयत्नात्
पचेद् विधिज्ञः सिकताख्ययन्त्रे ।
ततो रजश्चोद्धृतं सुरम्यं
प्रगृह्य यत्नादरुणप्रभं यत् ॥
तद् योजयेत् सर्वगदेषु वीक्ष्य
धातुं बलं वह्निमथो वयश्च ।
रसायनं वृष्यतरञ्च बल्यं
मेधाग्निं कृत्वाऽऽर्चनञ्च ॥

Twelfth process.

One palam of mercury, one palam of sulphur, and one eighth of a palam of gold (reduced to ashes), are to be rubbed together, for three hours each, with the juice of the aerial roots of a banyan tree and that of kanya, and then to be put into a glass flask, and subjected to heat by means of a Baluka Jantram. Then the red and beautiful powders, accumulated at the upper portion of the flask, are to be procured carefully and

prescribed in all sorts of diseases, in accordance with the nature and strength of the constitution, power of digestion, and age. This Swarna sinduram prevents premature old age, and is a destroyer of diseases. It is nutritious, and increases strength, retentive faculties, power of digestion, beauty, and sexual power.

(४) त्रयोदशो विधिः ।

विष्णुदन्ताक्षतद्विषलताष्टुम्भिकनककुलिकैः ।
 विशालानागिनीकन्दव्याघ्रपादीकुतुम्बकैः ॥
 वृश्चिकालीभशुण्डिभ्यां हंसपाद्या सहासुरैः ।
 अप्रसूतगवां मूत्रैः पिष्टं वालुकगो पचेत् ॥
 पक्वमेवं मृतैर्लोहैर्मर्दितं विपचेद् रसम् ।
 यन्त्रेषु मूर्च्छा सूतानामेषा चोक्ता समासतः ॥

Thirteenth process.

Mercury is to be rubbed with the following drugs and subjected to heat by means of a Baluka Jantram:— bisnucranta, karpura, lata-kasturi, kumbhi, kanaka dhutura, kulika, bisalá, nágadanti, shurana, byaghra-padi, dronapushpi, brischikali, hastishundi, sahá (mudgaparni), asura, and the urine of a cow which has not yet conceived. After the completion of the heating, * the mercury is again to be rubbed with some incinerated metal and again to be heated (by means of a Baluka Jantram).

* For test of a perfect heating, see instructions under Baluka Jantram.

चतुर्दशो विधिः ।

अथातः शुद्धसूतस्य मूच्छना-विधिरुच्यते ।
 मेघनादवचाहिङ्गुशूरणैर्मदयेद् रसम् ॥
 नष्टपिष्टन्तु तद्गोलं हिङ्गुना वेष्टयेद् बहिः ।
 पचेत्स्रवणयन्त्रस्थं दिनैकं चण्डवह्निना ॥
 ऊर्ध्वं लग्नं समादाय दृढं वस्त्रेण बन्धयेत् ।
 ऊर्ध्वधो गन्धकं तुल्यं दत्त्वा सोमानले पचेत् ॥
 जीर्णे गन्धे पुनर्देयं षड्भिर्वारैः समं समम् ।
 षड्गुणो गन्धके जीर्णे मूच्छितो रोगहा भवेत् ॥

Fourteenth process.

Mercury is to be rubbed very steadily for some time with meghanada, bacha, hingu, and shuranam, and made into a ball, the surface of which will have to be coated with hingu. The substance is then to be put upon a very strong fire, and heated by means of a Labana Jantram for one day. The mercury thus deposited, at the upper part of the bottle, is to be procured and enclosed tightly with a piece of cloth. This is then to be heated with sulphur put at the top and the bottom. When this sulphur will be burnt up, a fresh quantity of sulphur will have to be put in, and so on. The total quantity of sulphur, thus made use of, will be six times in weight of the mercury. The compound thus prepared, may be used in all sorts of diseases.

पञ्चदशो विधिः ।

गन्धकं मधुसारञ्च शुद्धसूतं समं समम् ।
 यामैकं पाचयेत् खल्लं काचकूप्यां निवेशयेत् ॥
 रुद्धा द्वादशयामं तं बालुकायन्त्रगं पचेत् ।
 स्फोटयेत् स्वाङ्गशीतं तं तद्गुह्यं गन्धकं त्यजेत् ।
 अधस्तं रसमादाय सर्वरोगेषु योजयेत् ॥

Fifteenth process.

Equal quantities of sulphur, wax, and mercury are to be rubbed for three hours in a hot mortar, and then to be put inside a bottle, and heated by means of a Baluka Jantram for thirty six hours. When cooled of itself, the bottle is to be broken open, the mercury deposited at the bottom being taken, to the rejection of the sulphur deposited at the upper part. This mercury is applicable in all sorts of diseases.

षोडशो विधिः ।

शुद्धसूतं द्विधागन्धं सूताद्धं सैन्धवं क्षिपेत् ।
 द्रवैः सितजयन्त्याश्च महयेद् दिवसत्रयम् ॥
 कृत्वा गोलञ्च संशोष्य क्षिप्त्वा मूषां निरुन्धयेत् ।
 शोषयित्वा धमेत् किञ्चित् सुतप्तां तां जले क्षिपेत् ॥
 तस्माद् रसं समुद्धृत्य त्रिकण्टरसभावितम् ।
 योजयेद् सर्वरोगेषु धमेद् वा भूधरे पचेत् ॥

Sixteenth process.

One part of saindhava, two parts of pure mercury, and four parts of sulphur are to be rubbed together for three days with the juice of white jayanti, and made into a lump, which is to be dried and put inside a crucible. This crucible is to be closed tightly, duly heated, and to be thrown into water, while it is still somewhat hot. Mercury is then to be procured from his, subjected to bhabana with the juice of the *Trikanta*, and heated either in an ordinary way, or by means of a Bhudhara Jantram. This can be used in all sorts of diseases.

सप्तदशो विधिः ।

रसाद्धं गन्धकं सूतं घृतैर्विमर्द्यं गोलकम् ।
 कृत्वा तं बध्नीयाद् वज्रं दोलायन्त्रगतं पचेत् ॥
 गोमूत्रान्तकृतं यामं नरमूत्रैर्दिनत्रयम् ।
 शोषयेच्च पुनर्वज्रं बद्ध्वा वेष्टं च सदा दृढम् ॥
 शुष्कं निरुध्य मूषायां ततस्तुषाग्निना पचेत् ।
 ऊर्ध्वं भागमधः कृत्वा चाधोभागञ्च तूद्धृगम् ॥
 इत्येवं परिवर्त्तेन स्वेदयेद् दिवसत्रयम् ।
 योगवाहं विजानीयात् तं सूतं रोगनाशकम् ॥

Seventeenth process.

Mercury, with half its quantity of sulphur, is to be rubbed with clarified butter, and made into a ball, which is to be wrapped up in a piece of cloth, and heated by means of a Dolajantram for three hours

with cow's urine, and for 3 days continuously with man's urine. This is then to be dried and again wrapped up in a piece of cloth very tightly, and put inside a crucible which is to be heated by means of a fire made of husk of paddy. The heating is to continue for 3 days, both the extremities of the crucible being put on fire by turns. The compound, thus produced, has the effect of curing all diseases, if applied with suitable *anupanam*. It also serves to heighten the effect of a medicine with which it is mixed.

अष्टादशो विधिः ।

सद्योजातस्य बालस्य विष्टा पालाशबीजकम् ।
 चण्डालीरुधिरं सूतं सूतपादञ्च टङ्गणम् ॥
 जयन्त्या मह्येद्द्रावैर्दिनैकं तं तु गोलकम् ।
 पेषयेत् सहदेव्याथ लेपयेत् ताम्रसंपुटम् ।
 तन्मध्ये गोलकं चित्वा द्वियामं स्वेदयेत्लघु ।
 बालुकायन्त्रमध्ये तु समुद्धृत्य ततः पुनः ॥
 चित्रकैः सहदेव्या च गन्धकैर्लेपयेद् बहिः ।
 संपुटं बध्नीयाद् वस्त्रे मृदालेप्य च शोषयेत् ॥
 तं रुद्ध्वा चान्धमूषायां ध्माते संपुटमाहरेत् ।
 सूक्ष्मचूर्णं हरेद् रोगान् योगवाहो महारसः ॥
 संपुटं सूततुल्यं स्याच्छास्त्रदृष्टेन कर्मणा ॥

Eighteenth process.

The stool of a newly born baby, seeds of palasa, juice of a chandali plant, and mercury, each equal in

quantity, and tangananam, one fourth in weight of mercury—all of these are to be rubbed for one day with the juice of jayanti and made into a ball. A part of this ball is to be rubbed with sahadēvi, with which is to be painted the whole surface of a copper samputam * inside which is to be put the ball. The samputam is then to be heated for six hours by means of a Baluka Jantram placed upon mild fire. The external surface of the samputam is then to be painted with a paste made of chitraka, sahadēvi, and gandhaka, and wrapped up in a piece of cloth, which is to be covered with mud and dried. This is then to be put inside a blind crucible, which is to be subjected to heat. The samputam is then to be taken out and reduced to fine powder, which cures all sorts of diseases, and serves to increase the potency of the medicine with which it is mixed. Here the samputam has the same property as the mercury contained in it.

उनविंशो विधिः ।

धुतुरासुतकैर्दिनं गन्धं ससूतकम् ।

अन्धमूषे दिनं स्वद्यं भूधरे मूर्च्छितो भवेत् ॥

Nineteenth process.

Mercury with an equal quantity of sulphur is to be rubbed for one day with the juice of Dhutura,

* Samputam means a basin placed upon another, the joint being tightly closed with rags mixed with mud. This is used for the purpose of killing metals and semimetals which are placed inside the two basins. See the Chapter on putam.

put into a blind crucible, and heated by means of a Bhudhara Jantram. This is how it can be brought to a state of swoon.

विंशो विधिः ।

कृत्वा षडङ्गुलां मूषां सुपकां मृन्मयीं दृढाम् ।
 मूषागर्भं विलेप्याथ मूलैर्वहुलपत्रकैः ॥
 तन्मध्ये सूतकं क्षिप्वा मूषा पूर्या तु तद्द्रवैः ।
 रुद्ध्वा च लवणैर्यन्त्रे चुल्यां दीप्ताग्निना पचेत् ॥
 सप्ताहान्ते समुद्धार्यं यवमात्रं ज्वरापहम् ॥

Twentieth process.

The inner surface of a strong crucible, made of mud and well burnt, is to be painted with a paste made of raddish and leaves of red sobhanjana. Mercury is to be put inside this crucible, the remaining part of which is to be filled with the juice of the vegetables referred to above. The crucible is to be tightly closed and heated by means of a Labana Jantram by a strong fire. The mercury, taken out after a week, cures fevers, if given in dozes of one jaba a day.

एकविंशो विधिः ।

काशीशं सैन्धवं सूतं तुल्यं तुल्यं विमर्दयेत् ।
 काशीशस्यास्य भागेन दातव्या फुल्लतूरिका ॥
 स्तोकं स्तोकं क्षिपेत् खल्लं यामत्रयं विमर्दयेत् ।
 प्रत्येकं शतनिष्कं स्यादूनं नैवाधिकं भवेत् ॥

स्थालीसंपुटयन्त्रेण दिनं चण्डाग्निना पचेत् ।
ऊर्ध्वं लम्बं ततश्चूर्णयां मूर्च्छितं चाहरेत् सूतम् ॥

Twenty first process.

(Not more, not less than) one hundred niskas each of kasisa, saindhava, suta (mercury), and *fulla turika*, are to be put gradually into a mortar, and rubbed for nine hours. The substance is then to be put inside a metal samputam, and heated for one day by a very strong fire. Then the mercury found deposited in a state of swoon at the upper part of the samputam will have to be collected.

द्वाविंशो विधिः ।

कुरुण्टकरसैर्भाव्यं चातपे मह्येद् रसम् ।
लताकरञ्जपत्रकैर्वाङ्गष्टेन विमहयेत् ।
दिनेकं मूर्च्छितं सम्यक् स्वर्णरोगेषु योजयेत् ॥

Twenty second process.

Mercury is to be immersed in the juice of kuruntaka and to be rubbed for one day in the sun by means of the leaves of latakaranja or by the thumb. This is thus brought to a state of swoon, and as such, may be used in all sorts of diseases.

त्रयोविंशो विधिः ।

अथ सूतस्य शुद्धस्य मूर्च्छितस्याप्ययं विधिः ।
सूततुल्यं घृतं जीर्णं द्वाभ्यां तुल्यञ्च गन्धकम् ॥

रविस्त्रीरैर्दिनं मद्यमन्धयित्वा तु भूधरे ।
पुटकेन भवेत् सिद्धो रसो हैरण्यगर्भकः ॥

Twenty third process.

Mercury, with an equal quantity of ghritam and double its quantity of sulphur, is to be rubbed for one day with the milk of arka, and then put into a samputam tightly closed, and heated by means of a Bhudhara Jantram. This mercury will be able to retain, even in a state of swoon, the gold, if any, with which it might have been mixed up.

अथ रसवन्धनम् ।

कटुतुम्बुयुञ्जवं कन्दं बन्ध्याया क्षीरकन्दकम् ।
अपक्वं तु समादाय तद्गर्भे पिण्डिका ततः ॥
दशनिष्कं शुद्धसूतं निष्कैकं शुद्धगन्धकम् ।
स्तोकं स्तोकं क्षिपेद् गन्धं पाषाणे चापि कुट्टयेत् ॥
याममात्रे भवेत् पिण्डी रक्तकन्दे विनिक्षिपेत् ।
ऊर्ध्वधो भस्मवैक्रान्तं दत्त्वा निष्कार्द्धमात्रकम् ॥
ततः कन्दस्य मज्जाभिर्मुखं बद्धा मृदा दृढम् ।
क्षिप्तमङ्गलमानेन सर्व्वतः शोष्यगोलकम् ॥
पाचयेद् भूधरे यन्त्रे तथोद्धृत्य पुनः पचेत् ।
ऊर्ध्वभागमधः कुर्यादित्येवं परिवर्त्तयेत् ॥
क्रमेण चालयेद् ऊर्ध्वं बहिर्युग्मोत्पलैः पचेत् ।
ततो यत्नात् सुसंघ्राह्यो बद्धस्तु दाडिमोपमः ।
नाम्ना वक्रान्तबद्धोऽयं सर्व्वरोगेषु युज्यते ॥

Solidification of mercury.

A hole is to be made in the green tuber of a katutumbi, bandhya, or bidari creeper wherein to be deposited ten niskas of purified mercury and one niska of purified sulphur, the whole thing being pressed gradually upon stone and made into a ball. This ball is to be put inside the tuber of a ractakanda (or sarkarakanda) with half a niska of baikranta ash, put at the top and at the bottom, the opening being closed by the rejected portion of the tuber. The tuber is then to be coated all over with mud one anguli thick, and dried well. This is next to be heated by means of a Bhudhara Jantram for more than once—each of the extremities of the ball being heated in turn and the upper part being gradually moved. The fire to be made outside is that of cowdung balls, found dried in pasture grounds. The mercury, which is now solidified and assumes the appearance of a pomegranate, is called "baikranta baddha." It is very efficacious in all sorts of diseases.

प्रकारान्तरं रसवन्धनम् ।

अथवा गन्धपिष्टीनां वस्त्रे बद्ध्वा तु गन्धकम् ।

तुल्यं दत्त्वा निरुन्ध्याथ संपुटे लोहजे दृढे ॥

पुटयेद्बभूधरे तावद्यावज्जीर्यति गन्धकम् ।

एवं पुनः पुनर्देयं यावद्बन्धन्तु षड्गुणम् ॥

इत्येवं गन्धके बद्धः सूतः स्यात् सर्वरोगजित् ॥

Another process.

Mercury with an equal quantity of sulphur is to be bound up in a piece of cloth, soaked with a solution of

sulphur, and dried. This bundle is to be put inside a strong metal samputam, tightly closed, and heated by means of a Bhudhara Jantram, until the sulphur is consumed. This is to be repeated until sulphur, six times in weight of the mercury, is consumed. Mercury, thus entangled with sulphur, becomes the destroyer of all the diseases.

पुनः प्रकारान्तरम् ।

मूषा जम्बीरविस्तारा दैर्घ्येण षोडशाङ्गुला ।
 अपक्वा सुदृढा कार्या सिकताभासडम्ब्यमा ॥
 त्रिभागं बालुकामग्ना पादांशेन बहिः स्थिता ।
 पल्लैकं चूर्णितं गन्धं मूषामध्ये विनिक्षिपेत् ॥
 शुद्धसूतं समं पश्चात् क्षिपेद्गन्धपलं ततः ।
 भाराडमारोपयेच्चूल्क्यां मूषामाच्छाद्य यत्नतः ॥
 मन्दाग्निना पचेत्तावद्यावन्निर्धूमतां व्रजेत् ।
 गन्धधूमे गते पूर्या काकमाचीद्रवैस्तु सा ॥
 द्रवे जीर्णे पुनः पूर्या नागवल्लीदलद्रवैः ।
 तज्जीर्णे धुस्तुरद्रावैः पूरयित्वा पुनः पचेत् ॥
 यावज्जीर्यति तद्गन्धं काकमाच्यादिभि पुनः ।
 दत्त्वा दत्त्वा पचेत्तद्द्रव्यं धुस्तुरादिक्रमाद्रसम् ॥
 भित्त्वा मूषां सुसंग्राह्यो जराव्याधिहरो रसः ।
 युज्यते गन्धबद्धोऽयं योगवाहश्च सर्वतः ॥

Another process.

A strong and unburnt crucible, sixteen angulis in length, and having a breadth equal to the diameter

of an ordinary lime fruit, is to be kept inside a Baluka Jantram. Three parts of this crucible is to be kept under sand, the rest, viz. one fourth, being kept above that. One palam of powdered and purified sulphur is to be poured into the crucible, and an equal quantity of pure mercury is next to be poured into the same. This is to be followed by the pouring again into the crucible of one palam of sulphur, as before. The crucible is then to be closed very carefully, and the Baluka Jantram put upon a mild fire and heated, until smoke ceases to come out. The crucible is then to be filled with the juice of kakamachi, and heated by means of a mild heat. The evaporation of the juice is to be followed by the pouring in of the juice of pan leaves. When that, too, will be evaporated, juice of dhutura is to be poured in the same manner and heated. These juices are to be poured into the crucible in their turns, until the mercury is completely consumed. The mercury is then to be procured by breaking the crucible open. This mercury is what is called entangled with sulphur, This serves to heighten the property of a drug with which it is mixed, and is the curer of diseases and decay due to the premature arrival of old age.

(१२) अथ रसस्य सञ्चारणम् (एतदस्य द्वादशः संस्कारः) ।

तृटिशो दत्ता मृदितं सोष्यो खल्वेऽभ्रहेमलोहादि ।

चरति रसेन्द्रः चित्तिखगवत् सजम्बीरबीजपुराम्लैः ॥०

* सजम्बीरबीजपुराम्लस्थले पूर्व्वताधितकाञ्चिकस्यापि व्यवहारो दृश्यते ।

(12) *Movement of Mercury.*

Mercury (made capable of swallowing metals etc.), if rubbed in a hot mortar with mica, gold, iron etc., each one triti in weight, in sour juice made of juices of lime fruit and of bijapura, or in old kanji, moves like an earth worm.

(१३) अथ रसस्य गर्भद्रुतिः (एतदस्य त्रयोदशः संस्कारः) । *

ग्रासस्य जारणाम् गर्भद्रावणाम् चारणं तथा ।

त्रिरूपा रसजारणा निर्दिष्टा वरवार्त्तिकैः ॥

रसस्य जठरे ग्रासक्षपणं जारणा मता ।

प्रस्तस्य द्रावणं गर्भे गर्भद्रुतिर्विनाग्निना ॥

(13) *Internal liquefaction of mercury.*

The great annotators are of opinion that the exhaustion of mercury comprises the three different stages, viz., swallowing of the metals etc, internal liquefaction, and movement.

When metals etc., thrown upon mercury, disappear altogether, it is a case of swallowing, but when the metals etc. thrown upon mercury turn into liquids without any heat being applied, it is a case of internal liquefaction (as distinguished from external liquefaction of metals etc. which means the liquefaction of the metals at the touch of mercury).

* प्रसङ्गमादत्र रसस्य बाह्यद्रुतिर्बोद्धव्यते :—

बहिरेव द्रुतीकृत्य घनसत्त्वादिकं कलु ।

जारणाय रसेन्द्रस्य सा बाह्यद्रुतिरुच्यते ॥

जम्बीरबीजपुरचाङ्गेरीवेतसाम्बसंयोगात् ।

द्वारा भवन्ति नितरां गर्भद्रु तिजारणो शस्ताः ॥

(केषाञ्चिन्मते गर्भद्रु तिमन्तरेण जारणैव न स्यात् ।)

Gold, silver, etc. are to be mixed with the essence of swarnamakshika, and rubbed with sour vegetable juices. Mercury undergoes internal liquefaction, if such gold or silver is put upon it. Lead, killed with manasila, or swarnamakshika (pyrites) killed with salt, if rubbed with "bijam" (gold or silver to be swallowed by mercury), causes an immediate internal liquefaction of mercury. Alkalis made of jambira, changeri, and amlabetasa are suitable for internal liquefaction. According to some chemists, internal liquefaction is indispensable to the exhaustion of mercury.

(१४) जय रसस्य जारणम् । (एतदस्य चतुर्हराः संस्कारः) ।

अथातो जारणापूर्वं सबीजं मारणोच्यते ।

अजीर्णञ्चाप्यबीजञ्च सूतकं यस्तु मारयेत् ॥

ब्रह्महा स दुराचारो शिवद्रोही सदा भवेत् ।

तस्मात् सर्वप्रयत्नेन जारितं मारयेद्रसम् ॥

Now, we are going to describe the process by which mercury, which has already been made to swallow a sufficient quantity of gold, mica etc., is to be exhausted and then killed and reduced to ashes. The man who kills mercury without exhausting it and making it swallow a sufficient quantity of gold, mica etc. is a great sinner, and is to be taken for an enemy

of the great God. Hence, mercury is to be exhausted very carefully before it is killed.

रसजारणे वज्रमूषा ।

तुषदग्धस्य भागौ द्वौ चैका बलमीकमृत्तिका ।
 लौहकिट्टस्य भागैकं श्वेतपाषाणभागकम् ॥
 नरकेशं समं किञ्चिच्छ्यागीक्षीरेण पेषयेत् ।
 याममात्रं दृढं मर्दयं तेन मूषां प्रकल्पयेत् ॥
 शोषयित्वा तु संलिप्य तत्कल्कैः सन्निरोधयेत् ।
 वज्रमूषेयसाख्याता सम्यक् पारदसाधिका ॥

Construction of a hard crucible for use in the exhaustion of mercury.

Two parts of burnt husks and one part of the soil, raised by white ants ; one part of particles of iron thrown out of red hot iron on the anvil by means of a blacksmith's hammer ; one part of powdered white stone, one part of man's hair—all these are to be rubbed steadily for three hours with a little of goat's milk ; and made into a crucible. This is then to be dried and coated all over with a plaster made of the foregoing materials. Such a crucible is to be closed with the same ingredients.

(१) रसजारणस्य प्रथमो विधिः ।

पीतासवाम्बुखात् सत्तं कान्तं वा तीक्ष्णमेव वा ।
 चतुःषष्टितमांशेन प्रमितं क्षिप्तमल्पशः ॥

तप्तखल्वेऽम्लयोगेन श्लक्ष्णवत्तं विमर्दयेत् ।
 भूर्जे चाराम्ललवणस्नूह्यर्कक्षीरलेपिते ॥
 बद्धं वद्धावृते खिन्नमम्ले समरसे रसम् ।
 धौतमुष्णारणालेन शुष्कमङ्गुलिमर्दितम् ॥
 पचेत् कच्छपयन्त्रस्थमष्टमांशविडान्वितम् ।
 जारितो रसराजोऽयं वह्निस्थायी भवेत्ततः ॥
 स्वप्रमाणरसस्तिष्ठे जीर्णे प्रासे त्वजीर्यति ।
 पातयेदासवाम्लेन मर्दयेत् स्वेदयेच्च तम् ॥
 जारणे जारणे वह्निं प्रासं च परिवर्द्धयेत् ।
 द्विगुणं योजयेदेवं सत्तुमभ्रकसम्भवम् ॥
 पूतिलोहं विषं मूत्रं रसकं गन्धकत्रयम् ।
 न युञ्जथाजारणे सुतस्तैर्जीर्णः स्फोटकुष्ठकृत् ॥*

(r) *First process of exhaustion of mercury.*

Essence of mica, previously soaked with sour
 asava and dried, and kanta iron or steel, reduced to
 ashes, —each of these two things, one sixty fourth part
 of the mercury in weight, is to be mixed, very slowly
 and little by little, with the mercury mixed with kanji,
 and rubbed very fine in a hot mortar. The mercury
 is then to be put upon a bhurja leaf, previously
 painted with jabakshara, kanji, saindhava, milk of
 snuhi, and that of arka, and then wrapped up in a

* रसे गन्धाद्गद्देमादीन् यथारीति प्रसति विधिरेष निष्प्रयो-
 क्तीयः ।

piece of cloth and tightly bound, the bundle being boiled in kanji, equal in quantity to the mercury, then washed off with hot kanji, and well dried. The mercury is now to be mixed with one eighth its quantity of *vida*, and subjected to heat by means of a Kacchapa Jantram. This is how mercury is exhausted, and is capable of standing fire. If, iron, mica etc. with which mercury was rubbed—are properly swallowed, the mercury retains its original quantity, and can stand the heat of fire. In case these are not properly swallowed, the mercury will have to be subjected to a process of sublimation by means of sour asava, and then again to be rubbed and boiled, as before. Every such new act of exhaustion will require increased fire and increased morsel (*i.e.*, mica, iron etc., meant to be swallowed by mercury).^{*} Iron rust or oxidised iron, aconite, urine, rasaka, manas-sila, haritala, and gandhaka are not to be made use of in the exhaustion of mercury, since mercury exhausted with these things give rise to leprosy, boils etc.

विडोऽत्र पुनरेकः कथ्यते ।

गुञ्जासैन्धवयोश्चूर्णं देवदालीदलद्रवैः ।

टंकणं किं तुकरसैर्जम्बीराम्लेन चुलिकाम् ॥

मूलकक्षारगोमूत्रप्रसादेन च गन्धकम् ।

सर्जिकाभूखगव्योषशिग्रू मूलरसेन च ॥

शतशो भावयेत् सर्वं विडोऽयं वडवानलः ॥

* In the event of mercury having previously swallowed sulphur, mica, gold etc. this process need not be gone into.

The bida referred to above.

Powdered gunjá and powdered saindhava are to be saturated, for a hundred times, with the juice of devadali leaves, and dried. Similarly, tankana is to be saturated with the juice of kinsuka; chulika salt with vinegar prepared out of lime juice; gandhaka with the ashes of mulaka mixed with cow's urine; and sarjika, earthworm and the trikatu, taken together, are to be saturated with sigru root juice. Each of these substances is called a bida. They are as strong as fire in mid sea.

अथोऽन्यविधः विडः ;—विडवटी ।

खोटकं स्वणसंतुल्यं समावर्त्तन्तु कारयेत् ।

मादिकं कान्तपाषाणं शिलागन्धं समं समम् ॥

भूनागैर्मर्दयेद् गमं वल्लमात्रं वटीकृतम् ।

एषा विडवटी ख्याता योज्या सर्वत्र जारणे ॥

Mercury with an equal quantity of gold is to be smelted and mixed with swarna makshika, kanta pashana (load stone), gandhaka, (each duly reduced to ashes or purified, as the case may be, and equal in quantity to gold). The whole thing is then to be rubbed with earth worms and made into pills, six ratis in weight. This pill is called bida bati, and is always used in the exhaustion of gold.

मतान्तरेणाग्निस्त्रयीकरणम् । *

ताम्रेण वा समं पिष्टीं चतुर्भागां विधीयताम् ।

पातयेद् डमरुयन्त्रे त्रिवारं निम्बुकद्रवैः ॥

* अनाचरिते रसजारणस्य प्रथमे विधौ प्रणाल्येषावलम्बनीया ।

ततो रक्तगणेनार्यं रसराजो यथा दृढम् । ●
मर्दितो जायते वह्निस्थायी विघ्नविवर्जितः ॥
अनेनैव विधानेन कर्त्तव्या जारणा रसे ।
अन्यथा जायते सद्यः पलालस्य विधूननम् ॥

Another process of enabling mercury to stand fire.

Mercury is to be rubbed with one fourth its weight of copper, and made into a lump, which is to be subjected to sublimation by means of a Damaru Jantram, filled with lime juice. Mercury is then to be rubbed steadily with the raktagana (red group †), and is thus enabled to stand fire, leaving no possibility of danger. Thus is mercury to be exhausted.

(२) रसजारणस्य द्वितीयो विधिः ।

संस्थाप्य गोमयं भूमौ पक्कमूषां न्यसेत् तथा ।
तन्मध्ये कटुतुम्बयुत्थं तैलं दत्त्वा रसं चिपेत् ॥
काकमाचीरसं देयं तैलतुल्यं ततः पुनः ।
गन्धकं ब्रीहिमात्रञ्च चिप्त्वा ताञ्च निरोधयेत् ॥

* रक्तगणो यथा—

कुसुम्भं खद्विरो लाक्षा मञ्जिष्ठा रक्तचन्दनम् ।
अक्षी च बन्धुजीबञ्च तथा कर्पूरगन्धिनी ।
माक्षिकं चेति विज्ञेयो रक्तगर्गोऽतिरञ्जनः ॥

† These are—kusumbha, khadira, laksha, manjistha, raktachandana, redsbigru, bandhujiba, karpura-gandhiini and makshika. These are used in preparing a deep red colour.

तत्पृष्ठे पावकं देयं पूर्णं वा वह्निखर्परम् ।
 स्वाङ्गशीतलतां ज्ञात्वा जीर्णं तैले च गन्धकम् ॥
 काकमाची द्रवं चाग्नौ दत्त्वा दत्त्वा च जारयेत् ।
 मूषाधो गोमयञ्चात्र दत्त्वा चोद्धृ च पावकम् ॥
 षड्गुणं गन्धकं जाय्यं सूतस्यैवं मुखं भवेत् । *
 तं सूतं मर्द्दयेन्नरीरैः जम्बीरोत्थैः पुनः पुनः ॥
 चतुःषष्ठ्यंशकं पूर्वं द्वात्रिंशांशं ततः पुनः ।
 षोडशांशं ततो हेमपत्रं सूते विनिचिपेत् ॥
 शिखिपित्तेन संपिष्टं तैलैश्च सर्षपोद्भवैः ।
 लिप्त्वा हेम चिपेत् सूतं यामं जम्बीरजैर्द्रवैः ॥
 मर्द्यं तं पूर्ववत् पचेन् मूषायां जम्बीरद्रवैः ।
 पूरयेद्दु रोधयेच्चाग्निं दत्त्वा यत्नेन जारयेत् ॥
 प्रासे प्रासे च तन्मर्द्यं जम्बीराणां द्रवैर्दृढम् ।
 चूलिकालवर्णाङ्गन्धमभावे पित्ततैलयोः ॥
 पिष्ट्वा जम्बीरनीरेण हेमपत्रं प्रलेपयेत् ।
 इत्येवं जारणा कार्या ततः सूतञ्च मारयेत् ॥
 अथवा निर्मुखं सूतं विड्योगेन मर्द्दयेत् । **
 स्वर्णाभ्रसर्वलोहानि यथेष्टानि च जारयेत् ॥ †

* चतुःषष्ठ्यंशतो वीजप्रक्षेपो मुखमुच्यते ।

** मर्द्दनमत्र तत्सङ्कलने कर्तव्यम् ।

† धातुभोजनार्थाय लिखित-विधिना गन्धाम्रहेमादीन् प्रसक्ति
रसे विधिरेषः न समाचरणीयः ।

(a) *Second process of the exhaustion of mercury.*

A well-burnt crucible containing oil, made of bitter tumbi, and mercury, is to be placed upon some cow-dung deposited on the ground. The juice of kakamachi equal in quantity to the oil, and a grain of gandhaka are also to be put inside the crucible which is to be hermetically closed, and heated by fire set on all sides. The heating is to be continued so long as the oil is not completely consumed. The crucible is then to be cooled, and fresh quantity of gandhaka and kakamachi juice are to be put inside the crucible which is again to be subjected to heat in the foregoing manner. Thus, gandhaka, six times in weight of the mercury is to be consumed by means of a crucible, placed upon cowdung and heated on all other sides. This mercury is to be rubbed again and again with lime juice. Then one sixty-fourth part, one thirty-second part, and one-sixteenth part, of its weight of gold leaves rubbed with peacock's bile and mustard oil are to be mixed gradually with the mercury, and rubbed with lime juice for three hours each. The mercury is then to be put with lime juice inside a crucible which is to be closed and heated on all sides by fire, as before. It is better, if the gold leaves can be rubbed with lime juice rasamulikas, salt and sulphur. In the event of their not being available the gold leaves can be rubbed with peacock's bile, oil, and lime juice. Thus is mercury to be exhausted. It is then to be killed. Mercury may also be exhausted by being rubbed in a hot mortar with a bida, and then by swallowing, as much as possible, of gold, mica, and other metals.

(३) रसजारणस्य तृतीयो विधिः ।

पटम्लचारगोमूत्रस्तुहीचीरप्रलेपिते ।

वहिश्च बन्धवस्त्रेण भूर्जे घ्रासनिवेशितम् ॥

चारारणालमूत्रेषु स्वेदयेत् त्रिदिनं रसम् ॥

क्रमेणानेन दोलायां जाय्यं घ्रासचतुष्टयम् ।

ततः कच्छपयन्त्रेण ज्वलने जारयेद् रसम् ॥

Third process of the exhaustion of mercury.

Mercury is to be enclosed with its morsel (*i.e.*, mica, gold etc. meant to be swallowed) in a bhurja leaf, previously painted with an amalgam of salt, sour vegetable juice (or aranala), kshara, cow's urine, and milk of snuhi, and then tightly wrapped in a piece of cloth, to be boiled for 3 days in kshara, kanji, and cow's urine. Thus, four morsels are to be swallowed gradually by means of a Dola Jantram. (N. B.—The process is to be observed at every morsel being swallowed.) The mercury is then to be exhausted by means of a kachchapa Jantram.

पूर्वोक्तप्रासानां परिमाणम् ।

चतुःषष्ट्यंशकः पूर्वो द्वात्रिंशांशो द्वितीयकः ।

तृतीयः षोडशांशस्तु चतुर्थोऽष्टांश एव च ॥

चतुःषष्ट्यंशकप्रासाद्दण्डधारी भवेद् रसः ।

जलौका च द्वितीये तु घ्रासयोगे न संशयः ॥

प्रासेन तु तृतीयेन काकविष्टा समो भवेत् ।
प्रासेन तु चतुर्थेन दधिमण्डसमो तथा ॥

Quantity of the morsels referred to above.

The quantity of the four morsels referred to above are as follows :— $\frac{1}{8}$, $\frac{1}{8}$, $\frac{1}{8}$, and $\frac{1}{4}$ of the mercury, respectively. The first morsel makes the mercury look very beautiful, the second gives it the appearance of a leech ; the third makes it appear like a crow's stool ; and the fourth makes it look like butter milk.

सुतान्तरम् ।

चतुःषष्टिचत्वारिंशत् त्रिंशद् विंशतिषोडशांशाः

पञ्चप्रासाः ॥

पञ्चभिरेभिर्प्रासैर्वनसत्त्वं जारयित्वादौ

गर्भद्रावे निपुणो जारयति बीजं कलांशेन ॥

Another version.

Mercury is first of all to swallow the following five morsels of essence of mica :— $\frac{1}{8}$, $\frac{1}{8}$, $\frac{1}{8}$, $\frac{1}{8}$, and $\frac{1}{4}$ of the mercury, which is then to swallow one fourth its weight of gold or silver, as the case may be.*

* If the mercury is meant to be used for medicinal purposes only, both gold and silver or any one of them may be used at this stage. But if the mercury is meant to be used in the transformation of base metals into gold or silver, the use of these two metals at this stage, will depend upon whether it is meant to manufacture gold or silver.

(१५) अथ रसस्य मारणम् (एतदस्य पञ्चदशः संस्कारः) ।

प्रथमो विधिः ।

कुम्भीं समूलमुद्धृत्य गोमूत्रेण सुषेपयेत् ।
 तद्द्रवैर्मर्दयेत् सूतं दिनैकं कान्तसंपुटे ॥
 लेप्या नियामका देया चोद्धृत्वाधस्तदन्वये ।
 मृद्भिना दिनैकन्तु पक्वचूर्ण्यां मृतो भवेत् ॥

(15) *Killing of Mercury, (i. e., the fifteenth mercurial operation.)*

First process of killing mercury.

Exhausted mercury is to be rubbed for one day with kumbhi including its root, previously well rubbed with cow's urine and kept in a basin made of kanta iron, covered with another of the same description, the inner side of the basin being painted well with a paste made of vegetables which control mercury, and the joint being closed tightly with mud mixed with rags, etc. The mercury, if thus heated by means of mild fire for one day, is killed.

द्वितीयो विधिः ।

कर्कोटीं काकमाचीञ्च कञ्चुकीं कटुतुम्बिकाम् ।
 काकजशां काकतुण्डीं काकिनीं काकमञ्जरीम् ॥
 पिष्टैतान् वज्रमूषान्तर्लेपं कृत्वा रसं क्षिपेत् ।
 मर्दितं दिनमेकन्तु तदेवाद्रोत्थितै रसैः ॥

रुद्ध्वाथ भूधरे पचेदष्टवारं पुनः पुनः ।

मर्दयेत्सिक्तमूषायां रुद्धो ध्मातो मृतो भवेत् ॥

Second process.

Karkoti, kakamachi, kanchuki, katutumbi, kaka-
jangha, kakatundi, kakini, and kakamanjari—all these
are to be rubbed and made into a paste with which is
to be painted the inner side of a bajra musha (hard
crucible). Mercury, previously rubbed for one day
with the juice of the foregoing plants, is to be put
inside the above crucible, which is to be tightly closed
and heated for eight times, by means of a Bhudhara
Jantram, mercury being rubbed anew every time.

तृतीयो विधिः ।

रसो नियामकैर्मार्यायो दृढं यामचतुष्टयम् ।

द्विगुणैर्गन्धतैलैश्च पचेन् मृद्वग्निना शनैः ॥

यावत् खोटो भवेत् तत्तत् रोधयेत् लोहसंपुटे ।

हरीतकीं जले पिष्ट्वा लोहकिट्टेन मूषिकाम् ॥

कृत्वा तन्मध्यतः क्षिप्त्वा संपुटं चान्धयेत् पुनः ।

तस्योर्द्ध्वा खावकाकारं हृत्वा नागं द्रुतं क्षिपेत् ॥

कठिनेन धमेत् तावद् यावन्नागो द्रुतो भवेत् ।

न धमेत्तु पुनस्तावद् यावत् कठिनतां व्रजेत् ॥

एवं पुनः पुनर्ध्मात्त्रियामैर्घ्नियते रसः ।

नियामकस्ततो वङ्गो सूतस्य मारकर्मणि ॥

Third process.

Mercury is to be rubbed steadily for twelve hours by the controlling drugs. It is then to be mixed with double its quantity of sulphur oil* and heated steadily by means of mild fire, until it is solidified. It is then to be put inside an iron samputam, which itself is to be confined within a crucible, made of oxidised iron, rubbed with haritaki made into a paste. In a groove made at the top of the crucible, place some lead and heat the crucible steadily until the lead smelts. The heating is then to be discontinued until the lead gets solidified again. The process is to be repeated, and the crucible heated in this way for 12 hours, leading to the killing of the mercury. Lead is, in such a case, considered a controller of mercury.

चतुर्थो विधिः ।

काष्ठीडुम्बुरजैः क्षीरैः सिता हिङ्गविभावयेत् ।
 सप्तवारं प्रयत्नेन शोष्यं पेप्यं पुनः पुनः ॥
 काष्ठीडुम्बुरपञ्चाङ्गैः कषायं षोडशांशकम् ।
 हृत्वा तेन पुनर्मर्द्यं हिङ्गवङ्गरसेश्वरम् ॥
 क्षिप्त्वा निरुद्धय मूषायां भूधराख्यपुटे पचेत् ।
 अष्टधा म्रियते सूतो देयं हिङ्ग पुटे पुटे ॥

* Sulphur, purified and powdered, is to be strewn over a piece of cloth, which is to be soaked with mustard oil, and made into a wicker. If lighted, and held erect on a glass pot, the wicker will let oil fall, drop by drop, and collect itself in the pot. This oil is called sulphur oil.

Fourth process.

White hingu is to be subjected to *bhavana* for seven times, with the milk of *kasto udumbara*, being rubbed well every time. This hingu, together with an equal quantity of *banga* (tin) and mercury, is to be again rubbed with the decoction of the five different parts (viz, root, leaf, stem, flower, and fruit), of a *kasto udumbara* tree, the quantity of the decoction being one sixteenth in weight of the three things combined. The compound is then to be closed in a crucible and subjected to heat for eight times by means of a Bhudhara Jantram, fresh hingu being put into the crucible every time it is heated. This causes the killing of mercury.

पञ्चमो विधिः ।

कस्तुरमुञ्चयेत् कन्दे • गर्भे नारीपयायुतः ।
स्वेदनाद् भ्रियते सूतः सप्तधा गोमयाग्निना ॥

Fifth process.

Mercury can be killed, if confined with human milk, within the tuber of a *katu tumbi* fruit, and heated for seven times with the fire of cowdung cakes.

षष्ठो विधिः ।

अद्दोषस्व जटातोषैः पिष्टा खड्गे विमर्दयेत् ।
सूतं गन्धकसंयुक्तं दिनान्ते तं निरोधयेत् ।
पुटयेद् मूषरे यन्त्रे दिनान्ते तं समुद्धरेत् ॥

• कन्दे इति पाठान्तरम् ।

Sixth process.

Mercury with sulphur is to be rubbed for one day with the juice of the root of *ankola*. Then it is to be closed in a crucible and heated for one day. Mercury is killed in this way.

षष्ठमो विधिः ।

द्विपलं शुद्धसूतन्तु सूताद्धं शुद्धगन्धकम् ।
मर्दयेन् मारकद्रावैर्दिनमेकं निरन्तरम् ॥
बद्ध्वा तु भूधरे यन्त्रे दिनैकं मारयेत् पुटात् ॥

Seventh process.

Two palas of purified mercury and half its quantity of purified sulphur are to be rubbed incessantly for one day with the juice of drugs which can control mercury. The lump is then to be subjected to heat for one day, by means of a Bhudhara Jantram.

सप्तमो विधिः ।

एवमग्निसहो लौहसंयुक्तः केवलोऽथ वा ।
नियामकौषधसिताङ्गोलमूलरसादिभिः ॥
वैक्रान्तप्रमुखैर्वापि रसेन्द्रः सह मर्दितः ।
यन्त्रस्थः क्रमवृद्धेन वह्निनोद्धेन पाचितः ॥
मृतोऽधरामिना तप्तोऽप्यक्षीणो नोद्धे माश्रयेत् ॥

[*Eighth process.*

When mercury will be enabled to stand fire by one of the processes described above, it may or may not be mixed with iron, and then rubbed with the controlling drugs, the juice of white *ankola*, and with *baikranta* and other gems, it will have to be put into a *Bhudhara Jantram* and heated by means of a fire kindled at the upper surface of the *Jantram*, the intensity of which will have to be gradually increased. Mercury is killed by this process. This mercury, even if heated by a fire kindled underneath, does not undergo diminution in quantity, and does not sublimate.

नवमो विधिः ।

कृष्णाधुत्तूरतैलेन सूतो मह्यो नियामकैः ।
दिनैकं तं पचेद् यन्त्रे कच्छपाख्ये प्रयत्नतः ।
मृतो सूतो भवेत् सद्यो सर्वयोगेषु युज्यते ॥

[*Ninth process.*

Mercury is killed, if rubbed with the oil of black *Dhattura* and the controlling drugs, and heated for one day by means of the *kachchapa Jantram*. This mercury can be used in all sorts of diseases.

दशमो विधिः ।

व्यालस्य गरले सूतं मह्येत् सप्तवास्रान् ।
शम्भुनालंकृते यन्त्रे तन्मध्ये तदुरसं क्षिपेत् ॥ *

* शम्भुनालंकृतं यन्त्रं जलयन्त्रं प्रकीर्तितम् ।

वह्निं प्रज्वालयेद् गाढं दद्याद्दूद्धं हिमं जलम् ।
 यामद्वादशकं चैव सुसिद्धो जायते रसः ॥
 शुक्ले गुंजाद्धकं देयं गुञ्जैकं पर्वतेष्वपि ।
 देहे लोहे भवेत् सिद्धिः कामयेत् कामिनीशतम् ॥
 तिलमात्रं प्रदातव्यं सर्वरोगं नियच्छति ।
 सेवनाज्जायते सिद्धिरायुर्वृद्धिश्चिरन्तनी ॥

Tenth process.

Mercury is to be rubbed for seven days with the
 venom of a serpent, and then put inside a *Jala Jantram*.
 A strong fire is to be made, and the apparatus is to be
 filled with cold water (preferably ice). The heating is
 to continue for 36 hours, causing the killing of the
 mercury. Half a *gunja* of this mercury is sufficient
 to transform copper into gold, and one *gunja* is
 considered necessary for transforming stone into
 gold. It is beneficial to the body as well as to the
 metals. The man who takes it can enjoy many
 wives. Such a small quantity as one *tila* in weight
 of this medicine is sufficient to cure all the diseases.
 It increases longevity.

एकादशो विधिः ।

शुद्धसूतं समं सिन्धुं सोमसाञ्च तदद्दकम् ।
 सोमसाद्धं विषं चिप्त्वा हिङ्गुस्फटिकगौरिकम् ॥
 सामुद्रसवणं चैव सर्वतुल्यं विनिधिषेत् ।
 क्राजिकेन पुटं दद्यात् पुटित्वा चेन्द्रवारुणीम् ॥

स्थाल्यां संस्थापनं कृत्वा वह्नौ यामाष्टकं पचेत् ।
 खांगशीतं समुद्धृत्य भस्मसूतोद्धपातनम् ॥
 योजितः सर्वरोगेषु कुर्याद् बहुतरं बुधाम् ।
 पुष्टिदो वर्द्धते कामं योजयेद् रक्तिकाद्वयम् ।

Eleventh process.

Four parts of purified mercury, four parts of saindhava, two parts of somala (arsenic), and one part each of the following :—bisham (aconite), hingu, sfatika, gairika and samudra labana—all of these are to be mixed together, and subjected to bhabana with indrabarunl and kanji separately. The mixed substance is then to be subjected to heat, by means of a sthali Jantram, for twenty four hours. After the Jantram is cooled upon the fire place, the compound, thus produced and deposited at the upper part of the Jantram, will have to be procured, and used in all sorts of diseases. It increases appetite, is nutritious, and serves as an aphrodisiac. Dose, two ratis a day.

द्वादशो विधिः ।

कोरण्टकाम्बुसंयोगादातपे मर्दयेद् रसम् ।
 म्रियतेऽसौ ततः सूतः सर्वकर्माणि साधयेत् ॥

Twelfth process.

Mercury is killed, if rubbed in the sun with the juice of koranta for some time. This may be used in all sorts of diseases.

त्रयोदशो विधिः ।

देवदाली हंसपादी यवतिक्ता पुनर्नवा ।

ताभिः सूतो विवृष्टव्यो म्रियते नात्र संशयः ॥

Thirteenth process.

Mercury is killed, if rubbed with devadali, hansapadi, jabatikta and punarnava.

चतुर्दशो विधिः ।

नवप्रसूतासुरभिजरायुमिश्रितो ध्रुवम् ।

अन्धमूषागतो ध्मातो म्रियते पारदो मतः ॥

Fourteenth process.

Mercury is surely killed, if rubbed with the *Jarayuu* of a cow which has newly brought forth a calf, and then burnt by means of an *Andha mūsa* (blind crucible).

पञ्चदशो विधिः ।

काकोदुम्बरिकादुग्धहिङ्गुमर्दनतो रसः ।

म्रियते विधिना सम्यक् खोटरूपो हि जायते ॥

Fifteenth process,

Mercury, rubbed with the milk of *kak-udumbara* and hingu turns into a solid. It can then be killed, if properly burnt by means of a blind crucible.

षोडशो विधिः ।

आखुकर्णिरसैः पञ्चदिनानि परिमर्दयेत् ।
 पारदं खल्वके गाढं रसः स्पष्टं न दृश्यते ॥
 यथा तथा भृशं कुर्याद् गतरूपं समन्ततः ।
 पुनरुत्थाप्य तं सूतं हरिडकायन्त्रमध्यतः ॥
 पुनः खर्परके कृत्वा मण्डूकीरसमावपेत् ।
 यामद्वय त्रयं यावदाखुकर्णिरसैर्भृशम् ॥
 एवं सूतो भवेद् बद्धः शुभ्रः शुद्धः सुधामयः ।
 खोटपोटश्च जायेत टंकणज्यमधुप्लुतः ॥
 बलीपलितनाशार्थं समर्थो विद्यते रसः ।
 मुखस्था गुटिका कुर्यात् कल्पयुषं न संशयः ॥

Sixteenth process.

Mercury is to be rubbed for five days with the juice of akhukarni, in such a way as to make the juice invisible and to make the mercury lose its original appearance. The mercury is then to be placed upon an earthen basin, kept inside a Baluka Jantram. For six hours, the mercury will have to be heated with the juice of manduki, and for the next nine hours, with the juice of akhuparni. It will thus be solidified, white-coloured, blameless, and nectar-like. If taken with tankan, ghrita (clarified butter), and honey, it prevents decay, due to the arrival of premature old age.

सप्तमो विधिः ।

त्रिपुण्ड्रिकापत्ररसैः पारदं परिमर्दयेत् ।
 गन्धकेन समं घर्मे तीव्रे यामत्रयं सदा ॥
 पिडकायन्त्रमध्यस्थं विमुह्य कुशलो नरः ।
 समुत्थाप्य पुनर्ब्वारं घृतेन परिमर्दयेत् ॥
 ध्मायते वह्नियोगेन किटरूपं रसं नयेत् ।
 तन्मध्यगः पुनः सूतो श्वेतोऽयं नीयते पृथक् ॥
 पुनर्घृतादिभिर्घृष्टो वह्नियोगेन वध्यते ।
 जायते पारदः पुंसामतिवल्लभ उत्तमः ॥

Seventeenth process.

Mercury, with an equal quantity of sulphur, is to be rubbed for nine hours with the juice of nirgundi leaves in the intense heat of the sun, and heated by means of a Baluka Jantram. This will bring the mercury to a state of swoon. This is next to be rubbed with ghritam (clarified butter), and again heated by a Baluka Jantram. The substance, thus prepared, will appear to be an unclean lump. This contains some white coloured mercury which is to be separated, by being rubbed again with ghritam, and again heated as before. This will cause the killing of the mercury.

अष्टादशो विधिः ।

विष्णुक्रान्ताचापामार्गश्चाहिफेणेन्द्रवारुणी ।
 सर्वेषां च रसैः पिष्टो म्रियते सूतकः पुटात् ॥

Eighteenth process.

Mercury is killed, if rubbed with the juice of vishnukranta, apamarga, abiphenā, and indrabaruni—all mixed together, and heated by putam.

अष्टविंशो विधिः ।

लज्जालुरससंपिष्टो निबद्धः पारदो भवेत् ।
नष्टपिष्टो विघातव्यो मूषिकामध्यसंस्थितः ॥
तद्हरसैश्च पुनः सम्यग् क्रियते पुटपाकतः ॥

Nineteenth process.

Mercury is solidified by being rubbed with the juice of lajjalu. This is then to be put into a crucible, mixed with the same juice, and burnt by putapaka. This is how it is killed.

विंशो विधिः ।

अपामार्गसमुद्भूताक्षारिका खवणां भवेत् ।
आपूर्य्य हृदिडकां तेन मध्ये गर्त्तम् ततः कुरु ॥
तन्मध्ये पारदं दत्त्वा भृङ्गराजरसं तथा ।
दत्त्वाथ पालिकां दध्यात् ततः सन्धिं विमुद्गयेत् ॥
दीप्ताग्निः क्रियते तत्र यावच्च प्रहरद्वयम् ।
एवं रसो मृतो भूयात् खोटरूपो सितोऽप्यथ ॥

Twentieth process.

A Labana Jantram is to be filled with apamarga ashes, instead of salt, In the central part of the ashes, a

hole is to be made, and this is to be filled with mercury and the juice of bhringaraja. The vessel is to be covered, as usual, with a basin, the joint being closed very tightly with mud, etc. The vessel is then to be heated by means of a strong fire, for six hours, causing the death and solidification of the mercury.

एकविंशो विधिः ।

कलिकारेश्चकन्दकस्तथा श्वेतपुनर्नवा ।
 देवदाली तथा देवदारुको वज्रकन्दकः ॥
 पाठा जया च सर्वेषामेतेषां खरसैः सह ।
 सुदृढं मर्दयेत् सूतं त्रिदिनं यत्नतो सुधीः ॥
 यामबोडशकं यावत् पात्रमध्ये विधारयेत् ।
 अग्निं च कुरुते गाढं त्रियतेऽरुणसन्निभः ॥

Twenty first process.

Mercury is to be rubbed steadily for three days with the juice of all of the following :—tuber of kalikari (langali), white punarnava, debadali, debadaru, bajrakanda, patha, and jaya. This is then to be put into a glass bottle or crucible, and heated for forty-eight hours. Thus killed, mercury will assume a red appearance.

द्वाविंशो विधिः ।

तुल्यं च शिखरिमूलं वारिणा मर्दयेद् दृढम् ।
 मृन्मूषां लेपयेन्मध्ये तन्मध्ये निक्षिपेद् रसम् ॥

पञ्चटंकप्रमाणं तु मूषामंगारके लिपेत् ।
 एवं बद्धो भवेत् सूतो मूषान्तःस्थो दृढो भवेत् ॥
 मूषामध्यगतस्तिष्ठेन् मुखरोगविनाशनः ।
 शरीरे क्रमते सूतो जरागलितनाशनः ॥
 स्तम्भयेत् शस्त्रसम्पातं कामोत्पादनकारकः ।
 पुनर्नवं वपुः कुर्यात् साधकस्य न संशयः ॥
 अतिवेगो भवेत् कामे महाबलपराक्रमः ।
 क्षुब्धबोधो जायतेऽत्यर्थमत्यर्थं बलवान् भवेत् ॥
 अत्यर्थं जनयेत् काममत्यर्थं लभते सुखम् ।
 अत्यर्थं लभते पुष्टिं बलहानि न जायते ॥

Twenty-second process.

Five tankas of mercury are to be put inside a crucible, which has already been coated on the inner side with a paste, made of five tankas of sikhari (apamarga) roots, rubbed well with water. The crucible is then to be put upon fire. Thus heated, the mercury becomes solidified and becomes a destroyer of physical decay, and of various diseases.

त्रयोविंशो विधिः ।

पलाशबीजरक्तं च जम्बीराम्लेन सूतकम् ।
 सजीवं मर्दितं यन्त्रे पाचितं म्रियते ध्रुवम् ॥

Twenty third process.

Mercury is killed, if rubbed with seeds of palasha,

raktachandanam, and lime juice, and heated by means of a Bhudhara Jantram or Baluka Jantram.

अथ मृतपारदस्य लक्षणम् ।

अतेजाश्चागुरुः शुभ्रो लोहहाऽचञ्चलो रसः ।
यदा नावर्त्तते वह्नौ नोद्धं गच्छेत्तदा मृतः ॥

Characteristics of dead mercury.

Dead mercury is white, light, stable, devoid of glare, and is capable of killing metals. When put on fire, it does not expand and sublimate.

(१६) अथ पारदस्य मस्मीकरणम् (पतदस्य षोडशो विधिः) ।
विधिप्रथमम् ।

पूर्वप्रोक्तप्रकारेण मारितो यत्नतो सूतः ।
अथापामार्गतैलेन तथा पुष्करतन्दुलैः ॥
अथवा मलयूक्षीरभावितश्वेतहिङ्गना ।
मर्दितः पुटपाकेन भस्मतां प्रतिपद्यते ॥
गोमूत्रद्रोणपुष्पाभ्यां पाकाद्वा कान्तभाजने ।
कङ्गुनीकृष्णाधत्तूरतैलाभ्यां वा विमर्दितः ॥

(16) *The reduction to ashes or incineration of mercury.*
(i, e, the sixteenth mercurial operation.)

The first three processes.

Mercury, properly killed by one of the foregoing processes may be reduced to ashes, (a) if burnt by

putapaka, after being rubbed with the oil of apamarga or with the juice of puskaramula and tanduliaka, or with white hingu previously saturated with the milk of kaka-udumbara and dried ; or (b) if heated with cow's urine and drona-flower on a pot made of kanta-iron ; or (c) if rubbed with the oils of kanguni and black dhatura, and burnt by putapaka.

चतुर्थो विधिः ।

मृणालतन्तुवर्त्तिस्थः पीनगन्धर्व्वतैल्युक् ।
 ज्वालितो याममात्रं वा मृतवैक्रान्तसंयुतः ॥
 बन्ध्यामृताकलकगतपचनान्द्रूधरेऽथवा ।
 चपलोपलनिर्गुण्डीरसाभ्यां रसकेन वा ॥
 वाराहीरसयुक्तेन चक्रमर्द्दरसेन वा ।
 गन्धपाषाणयुक्तेन बद्धं वा वाससा रसम् ॥
 पचेद्गन्धकतैलेन यावदाखोठबन्धनम् ।
 गन्धेन समतुल्येन तथाहि द्विगुणेन वा ।
 मर्द्दितं खोटबद्धं तं रक्षितं कान्तसंपुटे ॥
 गन्धस्य वा तृतीयांशकान्तपर्पटमिश्रितम् ।
 मूलिकामर्द्दितं खोहसम्पुटान्तर्गतं धमेत् ॥
 यद्वा गन्धकषादेन मर्द्दितं मूलिकारसैः ।
 खोहसम्पुटमध्यस्थमङ्गारेर्ध्मातमुत्सनेत् ॥

Fourth process.

Dead mercury may be solidified in one of the following processes :—(a) It is to be rubbed (with

ashes of baikranta, if possible, and) with castor-oil, put inside a candle made of the fibres of a lotus stem, and burnt for three hours.

(b) It is to be put inside a paste made of bandhya and anantamulam, and heated by means of a Bhudhara-Jantram.

(c) It is to be rubbed with chapala, and juice of nirgundi or with rasaka, and burnt by means of a Bhudhara Jantram.

(d) A dead mercury wrapped up in a piece of cloth, saturated with sulphur and juice of Barahi kanda or chakramarda, and boiled with gandhakatailam (See under gandhaka, in Vol. II).

Dead mercury, solidified by one of the three foregoing processes, may be reduced to ashes—(a) if mixed with gandhaka, equal or double in quantity, and burnt in a samputam made of two kanta iron basins ; or (b) if mixed with the same quantity of gandhaka and one-third its quantity of parpati made of kanta iron, rubbed with the juice of the drugs which control mercury, and then burnt in iron samputam ; or (c) if rubbed with one-fourth its weight of sulphur and the juice of the controlling drugs, and burnt in an iron-samputam by means of a charcoal fire.

पञ्चमो विधिः ।

अथ लौहमयो मूषामायामे द्वादशाङ्गलाम् ।

मर्दितं हेमवाराहीयहकन्यारसै रसम् ॥

रसोनपिण्डे दधतीं लौहमय्या सुरन्ध्रया ।

निर्गुण्डीपत्रनिर्य्यासपीतपादांशगन्धया ॥

गर्भमूषिकया युक्तां सचक्रां सपिधानकाम् ।
 लम्बितां जलपात्रस्थखर्परद्वारि पाचयेत् ॥
 ऊर्ध्वं वनोत्पलैश्चित्रैरङ्गारैः खादिरैरधः ।
 एवमष्टगुणो जीर्णो गन्धके क्षयकुष्ठजित् ॥

Fifth process.

Dead mercury is to be rubbed with the juice of nageswara, barahikanda, and ghritakumari, and put inside a paste made of garlic. This is then to be put inside an iron crucible, having a hole and having its inner surface painted well with sulphur, one-fourth in weight of the mercury, rubbed with the juice of nirgundi. This crucible is then to be placed inside a bigger iron crucible, twelve angulis in length, and furnished with a cover. This bigger crucible is to be kept suspended at the mouth of a vessel containing water which is to be placed on fire made of khadira wood. Upon the basin which is to serve as the cover of the water vessel, will have to be made a fire made of cowdung, found dried in pasture grounds. In this way, sulphur, eight times in weight of the mercury, is to be consumed. Mercury, thus incinerated, has the effect of curing Pthisis and leprosy.

अथ मारणव्यतिरेकेणापि भस्मीकरणम् ।

षष्ठो विधिः ।

खरमञ्जरीबीजान्वितपुष्करबीजैः सुचूर्णितैः कल्कम् ।
 कृत्वा सूतं पुटयेद्दृढमूषायां भवेद्भस्म ॥

Incineration without killing of mercury.

Sixth process.

Mercury is incinerated, if put inside a paste made of seeds of apamarga and of lotus, well powdered, and then confined within a crucible and burnt steadily.

सप्तमो विधिः ।

देवदारुं रिक्तान्ताभारणालेन पेषयेत् ।
 तद्द्रवैः सप्तधा सूतं मर्हयेन् मूर्च्छयेत्तथा ॥
 तत् सूतं स्वर्परे दद्याद् दत्त्वा दत्त्वा तु तद् रसम् ।
 चुम्बयोपरि पचेद्वाहि भस्म स्यान्नवणोपमम् ॥

Seventh process.

Mercury is to be rubbed, and brought to a state of swoon, by being rubbed for seven times, with debadali and blue aparajita, rubbed with kanji. The mercury is then to be put upon an earthen basin, and heated for one day, the liquid referred to above being applied all the time. Mercury will thus be reduced to ashes of the appearance of salt.

अष्टमो विधिः ।

अपामार्गस्य बीजानि तथैरण्डस्य चूर्णयेत् ।
 तच्चूर्णं पारदे देयं मूषायामधरोत्तरम् ॥
 रुद्धं । क्षुपुटेः पश्चात्तुर्भिर्मसतां नयेत् ॥

Eighth process.

Mercury is reduced to ashes, if put in a crucible with seeds of apamarga and eranda, finely powdered placed above and below it, and burnt by laghuputam for four times.

नवमो विधिः ।

वटक्षीरेण सूताश्रे मर्दयेत् प्रहरत्रयम् ।
पाचयेत्ते च कोष्ठेन भस्मीभवति तद्रसः ॥

Ninth process.

Mercury and mica are to be rubbed for nine hours with the milk of a banian tree, and burnt by means of a kothica Jantram. Thus is mercury reduced to ashes.

दशमो विधिः ।

नागवल्लीरसैर्घृष्टः कर्कोटीकन्दगर्भितः ।
मृण्मूषासंपुटे पक्वः सूतो यात्येव भस्मताम् ॥

Tenth process.

Mercury is reduced to ashes, if rubbed with the juice of pan (betel leaf), put inside the tuber of karkoti, and burnt in a mud crucible.

एकादशो विधिः ।

गोघृतं गन्धकं सूतं पिष्ट्वा पिण्डीं प्रकल्पयेत् ।
कुमारीदलमध्यस्थां कृत्वा मूत्रेण वेष्टयेत् ॥

तां कान्तसंपुटे रुद्ध्वा त्रिभिर्लघुपुटैः पचेत् ।
ततो ध्मातो भवेद् भस्म चान्धमूषे रसो ध्रुवम् ।

Eleventh process.

Cow's ghee, sulphur, and mercury are to be rubbed together, and made into a ball which is to be put inside a kanya leaf, and placed in a kanta iron samputam, the leaf being immered in cow's urine. This samputam is to be burnt by laghuputam for three times. The mercury will then be reduced to ashes, if confined within a blind crucible, and burnt.

द्वादशो विधिः ।

शाकवृक्षस्य पक्वानि फलान्यादाय शोधयेत् ।
पेषयेद्रविदुग्धेन तेन मूषां प्रलेपयेत् ॥
आदिप्रसूतगोर्जातजरायुश्चूर्णमिश्रितः ।
अन्धमूषागतो सूतो ध्मातो भस्मत्वमाप्नुयात् ॥

Twelfth process.

Mercury is reduced to ashes, if mixed with the powdered *jarayu* of a cow which has brought forth its young for the first time, and burnt in a blind crucible, the inner surface of which has been painted with a paste made of the ripe fruits, duly purified, of shaka (teak) tree, rubbed with the milk of arka.

त्रयोदशो विधिः ।

गन्धकं सुहृदं स्थूलं निर्वाणम् जातमद्भुतम् ।
वस्तुलं छिद्रितं कृत्वा मध्ये शुद्धं रसं क्षिपेत् ॥

उपरिष्ठात् पुनर्गन्धडालिकासुखमुद्रणम् ।
 अयःशलाकया पश्चात् सर्व्वशः सन्धिरोधनम् ॥
 सूत्रेणावेष्टयेद्गन्धं भिद्यते न यथा भृशम् ।
 दोलासु स्वेदयेद् गन्धं वेदप्रहरमात्रकम् ।
 रसं गन्धान्यपाषाणे पुनरेनं निधापयेत् ॥
 दिनं सप्तावधिर्यावत् तावत् सोऽपि क्रमो भवेत् ।
 एवं निष्पद्यते स्वच्छः पद्मरागनिभप्रभः ॥
 अद्भुतः सर्व्वकार्याणि वाञ्छितानि च साधयेत् ।
 एतस्माज् जायते भस्म सूतको नृववल्लभः ।
 सर्व्वरोगहरः श्रौदः सन्मनःकामितप्रदः ॥

Thirteenth process.

A hole is to be made into a strong, big and circular ball, made of sulphur, into which is to be put mercury, the hole being closed hermetically by a piece of sulphur smelted by means of a heated iron stick. Care should be taken to see that there is no hole anywhere on the surface of the ball, which is now to be wrapped up carefully with a network of thread, and boiled by means of a Dolajantram for twelve hours. The mercury is then to be taken out of the ball, and put, as before, into another sulphur ball, and again heated in the foregoing manner. The heating is to continue for seven days incessantly. Mercury thus heated, will be reduced to ashes, and will assume the appearance of an emerald. This mercury cures all sorts of diseases.

चतुर्दशो विधिः ।

इष्टिका गैरिकं बल्मीमृत्तिका सैन्धवं समम् ।
 भागत्रयमिदं श्लक्ष्णं रसो भागद्वयो द्वयम् ॥
 संमर्द्य चैकतः कृत्वा गाढं तं मर्हितं रसम् ।
 हण्डिकायां ततः क्षिप्त्वा पार्श्वं पार्श्वं च स्वर्परान् ॥
 अन्यां च हण्डिकां दत्त्वा तदा सन्धिनिरोधनम् ।
 चुल्लिकायान्तदा दद्यादुपरिष्ठाच्च हण्डिकाम् ॥
 घामषोडशपर्यन्तमग्निं कुर्यादहर्निशम् ।
 अन्तरुद्धं रसं तस्माल्लघ्नं शीतं ससुद्धरेत् ॥
 कर्पूरपुलिकाकारमुज्ज्वलं हृष्टिसौख्यदम् ।
 ग्रन्थिलं मृदुलं सौम्यं भक्ष्यमाणं निरामयम् ॥
 पुष्ट्यारोग्यप्रदं तीक्ष्णं कमनीयं सुखावहम् ।
 बलप्रदं विशेषेण दीर्घायुः कारकं परम् ॥

Fourteenth process.

Powdered brick, gairika (red ochre), mud raised by white ants, and saindhava—all of these are to be mixed in equal quantities, and powdered very fine. Three parts of this powder and two parts of mercury are to be rubbed together steadily and put inside an earthen vessel, with small pieces of earthen pots placed on all sides. With the mouth of the vessel will have to be joined, by means of mud and rags, the mouth of another vessel. The apparatus is then to be subjected to continuous heat for forty-eight hours, applied both from the top as well as from an

oven upon which it is to be kept all the time. By this process the mercury will be reduced to ashes, as white as camphor, and will attach to the inner surface of the upper vessel. It cures all sorts of diseases, increases longevity, and serves as an excellent tonic.

पञ्चदशो विधिः ।

अङ्गोलमज्जास्वरसैरैरण्डकदलीजलैः ।
 मार्कवस्य द्रवैः सूतं काकमाचीरसैस्तथा ॥
 घत्तूरपत्रस्वरसै भण्डापत्री* रसैरपि ।
 तण्डूलीयकतोयेन कन्यकारसमर्दितः ॥
 इष्टिकाकांजिकेनाथ त्रिफलाकथमर्दितः ।
 कंटालिकारसेनापि देवदाल्या रसेन तम् ॥
 चपलारससंपिष्टं गोक्षुरद्रवमिश्रितम् ।
 चित्रकस्य रसैर्मृष्टं सेहंङ्गपयसा तथा ॥
 चित्रिकाश्वसंपिष्टं मूषाकर्णाद्रवैस्तथा ।
 आटरूषांभसा पिष्ट्वा कलिहारीरसैर्भृशम् ॥
 गण्डदूर्वारसेनामुं यामं यामं विमर्श तत् ।
 पलषट्कप्रमाणं स्यात् पारदं निम्बुकद्रवैः ॥
 बहुशो मर्द्यते तापे भाव्यते च पुनः पुनः ।
 अथ तापीद्वयं नीत्वा समं च दृढमुत्तमम् ॥

* भेकपर्णाति पाठान्तरम् ।

अधस्ताद्भावयेत् ताप्योः पर्णचूर्णेन लिप्यते ।
 पुनः पञ्चमृदो ग्राह्या मृन्मध्ये लघुगर्तिका ॥
 तन्मध्ये शिम्बिकापात्रं धत्तूरदलसम्भवम् ।
 विरच्य मूषिकां गाढां तस्मिन् गर्ते निवेशयेत् ॥
 तस्यां सूतं विनिक्षिप्य शिबीपत्ररसो रसे ।
 दीयते शेरमात्रोऽस्मिन् सूक्ष्मच्छिद्रशरावके ॥
 तत्पार्श्वे खर्परी देया निर्दोषा नूतना तथा ।
 तापिकामानयेच्चान्यां कन्याद्रवविलेपितां ॥
 पुनर्णवसारेणात्तामेकतः कुरु तद्द्वयम् ।
 कुरु सन्धेर्निरोधश्च पञ्चाशुल्ल्युपरि क्षिपेत् ॥
 यथाग्निरुद्भवेच्चार्द्धयोस्ताप्योः समन्ततः ।
 यामषोडशकं यावद् वह्निं कुर्व्यान्निरन्तरम् ॥
 तदा निष्पद्यते भस्म सूतकं शृणु यादृशम् ।
 हीरकेण च संकाशं प्रमाणं हीरकाकृति ॥
 क्वचित् पर्पटिकाकारं क्वचित् कर्पूरसन्निभम् ।
 पिण्डरूपं क्वचित् साक्षाद् गलद्रूप्यप्रभं क्वचित् ॥
 क्वचित् चन्द्रसमं साक्षाद् दृश्यते दृष्टिसौख्यदम् ।
 भक्षयेद् रक्तिकामेकां मरिचेनाथवा समम् ॥
 गुडेनविष्टय मतिमान् ज्वरनाशाय भक्षयेत् ।
 अरुचौ सह पिप्पल्या समं मोचरसेन तम् ।
 ब्रह्मण्यामतिसारेऽथ समं विल्वेन शस्यते ॥

त्रिकलाक्वाथसंयुक्तं पाण्डुरोगे नियुज्यते ।
 तं भार्गीक्वाथसंयुक्तं कासे श्वासे प्रदापयेत् ॥
 अनौपम्यवपुः श्रीमान् मतिमान् कान्तिमान् भवेत् ।
 बलवान् पुष्टिमान् वाग्मी दीर्घायुः सुप्रजायुतः ॥
 चिरस्थायी भवेद् भूमौ प्रभया स्यान् मनोहरः ।
 उत्साहवान् भवेत् प्रायो ह्यप्रधृष्यश्च मानवैः ॥

Fifteenth process.

Mercury, six palas in weight, is to be rubbed for three hours with each of the following—juices of the kernel of the ankola fruit, eranda, plantain tree, biringraja, kakamachi, dhatura leaves, bhendapatri* tanduliyaka, kanya leaves, powdered brick, kanji, decoction of the triphala; juices of kantalika, devadali, chapala, gokshura, chitraka, sehunda, chinchika, mushakarni, atarusha, kalihari and gandadurba. The mercury is then to be rubbed, for several times, in a hot mortar with lime juice, with which the mercury is again to be subjected to *bhabana* for several times. Next, are to be procured two earthen basins, uniform in size, and strong. One of these is to be painted all over with a paste made of powdered leaves of the plants which can control mercury. Five different kinds of mud (*viz.*, brick, gairika, salt, kshra, and mud created by white ants), are to be placed in this

* another reading—bhekaparni.

basin with a hole being made in the mud. Pour the juice of simbika leaves and dhatura leaves into the hole. Prepare a crucible and put it into the hole. Put mercury into the crucible with one seer in weight of the juice of simbi leaves. The crucible is to be covered with a basin containing small holes. By the side of the mercury are to be placed broken pieces of new earthen pots. The other basin is now to be got. This should be painted with the juice of kanya leaves and with powdered nabasara. The basins are now to be joined with each other, and to be placed on fire, which is to be kindled on all sides of the basins. The heating is to last for forty-eight hours continuously, leading to the incineration of the mercury. The ashes, so produced, resemble sometimes a diamond, sometimes a parpatica, sometimes camphor, sometimes smeltep silver, and sometimes the moon. For the cure of fever, one rati of this ash is to be taken with powdered maricha and molasses. It should be used with pippali in aversion to food; with mocharasa in grahani with powdered bilwa in Atisara (diarrhoea); with the decoction of the triphala in pandu (jaundice); with the juice of bhargi in kasa (cough) and swasa (asthma). This is a very good medicine, giving strength, long life, and beauty to the man who takes it regularly.

षोडशो विधिः ।

इयामाकुण्डलिकाविरेचनफलैर्धत्तूरपत्राम्बुना ।

खल्वस्थोऽथ सुयन्त्रितोऽपि निहितो मृत्पञ्चकैः पूरयेत् ॥

लिप्तवोर्ध्वं कुकुरंदकोद्भवरसैः पश्चान् मुखे मुद्रितं ।
 रात्र्येकं विधृतोऽनलेऽथ निवृतः संसाध्यते मस्तुना ॥
 जलयौतं माषसहितं संमर्द्याहिपर्णखण्डेन ।
 सितया वा मधुना वा कण्वाष्टौ पूजयित्वाऽद्यात् ॥
 तन्द्रास्तैमित्यजाड्यश्रवणविकलताऽतिदाहकम्पाश्च ।
 मूर्च्छार्छार्द्यतिसरणान् रोगांश्चान्यान् सकल-
 शरीरगतान् ॥
 स्वराम्लपित्तवक्त्राक्षिमेहमेदः क्षतक्षयान् ।
 हन्ति गोविन्द इव पापान् रसोराजो बहून् गदान् ॥

Sixteenth process.

Mercury is to be rubbed in a mortar with shyama kundalika, castor seeds, and juice of dhatura leaves, and then put inside a crucible with the five muds (see the foregoing process). The inner side of the upper part of the crucible is to be painted with the juice off kukkuradru. The crucible is then to be closed very tightly and put upon fire for one night. When cooled, the mercury is again to be heated with curd water, and then washed off with water. The mercury, thus incinerated, is to be taken with masha and pan leaf, or with sugar, or with honey. Eight virgins are to be duly worshipped before one commences taking this medicine. It cures all sorts of diseases, such as drowsiness, lethargy, inertness, diseases of the ear, inflammation, shaking, swoon, nausea, diarrhoea, vocal diseases, chronic dyspepsia, diseases

of the mouth and the eyes, gonorrhoea, obesity pthisis, etc.

सप्तदशो विधिः ।

आखुकर्णी समग्रा च गुंजा सर्व्वसमांशिकम् ।
 पेषयित्वा रसो नेयो बद्धा वस्त्रेण साधितम् ॥
 पारदं मर्द्दयेत्पश्चाद् दिनैकं खल्वयोगतः ।
 पातयेत् सप्तरात्रं तं पश्चाद् यामद्वयं तथा ॥
 ओषधिभ्यां च तं ताभ्यां मर्द्दयेत् तदनुस्फुटम् ।
 हण्डिकां लेपयेद्दूर्द्ध ताभ्यामेव समं रसम् ॥
 अधो दत्त्वा च मतिमान् हृदं सन्धिं निरोधयेत् ।
 द्वादशप्रहरान् यावन् नीचैर्नात्युच्चकैर्भवेत् ॥
 वह्निशीतलमादाय परीक्षेत परीक्षकः ।
 अरुणादित्यसङ्काशं सुन्दरं भस्म जायते ॥

Seventeenth process.

The five different parts of an akhukarni plant (viz. its root, stem, bark, leaves, and flowers), and an equal quantity of gunja are to be rubbed together, and the juice extracted by means of a rag. Exhausted mercury is to be rubbed with this juice for one day, and kept in the mortar for seven days. Then it is to be rubbed well for six hours with the two drugs referred to above. The upper part of the inner surface of an earthen vessel is to be painted with a paste made of those two drugs. Mercury is to be put into the vessel, the mouth of which is to be

covered tightly with a basin, mud, rags etc. The vessel is then to be placed on fire, neither mild nor strong, for thirty six hours. When cooled, the ashes of mercury, red as morning sun, are to be taken out.

अष्टादशो विधिः ।

लज्जालुरससंपिष्टो रसो हिंश्वतसीरसौ ।

खल्वमध्ये विघृष्टव्यो मूषामध्ये विनिक्षिपेत् ॥

ध्मातः शनैः शनैः शुद्धो रसो भस्मत्वमाप्नुयात् ।

मध्वाज्यदङ्कणोपेतो ध्मातः शुद्धतरो भवेत् ॥

Eighteenth process.

Mercury previously rubbed with the juice of lajjalu, is to be rubbed again in a mortar with hingu, and juice of atasi, put inside a crucible, and heated by means of a mild but steady fire. This will cause the reduction of mercury to pure ashes which can be further purified by being mixed with honey, clarified butter, and tankana, and heated.

उनविंशो विधिः ।

निंबूरसेन संमिश्रय मीनाक्षीरससंयुतम् ।

पारदं खल्वके कृत्वा सौभाग्यं च तदर्धकम् ॥

मर्दयेत्सर्वमेकत्र दिनपंचावधिस्तथा ।

माषप्रमाणा वटिकाः कर्तव्याः शुष्कतां गताः ॥

काष्ठभाजनमध्यस्था माषचूर्णेन वेष्टिताः ।
 इष्टीचूर्णेन संलेप्य पुनः शोष्याः खरातपे ॥
 मूषामध्ये विनिक्षिप्य पुनरंगारकेषु च ।
 मूषां वटीयुतां क्षिप्त्वा ध्मायमानाः शनैः शनैः ॥
 अनेन विधिना सूतो ध्मातो भस्मत्वमाप्नुयात् ।
 निःसृत्य वटिकाभ्योऽसौ भवत्यतिसितप्रभः ॥
 अयं मूलिकया बद्धो पारदो मुखरोगहृत् ।
 सर्वोऽपि स्वर्णरूपः स्यादपूर्वो जलयोगतः ॥
 खोटस्तु जायते ध्मातः पारदः शुष्कसन्निभः ।
 देहं लोहबलं कुर्यात्कल्पस्थाधिप्रभाधिकम् ॥
 न जराविधुरं कुर्यान्नकालः कलयत्यमुम् ॥

Nineteenth process.

Mercury and half its quantity of tankana are to be rubbed for five days with the juices of nimbu (lemon) and minakshi, and made into pills five mashas in weight. These pills are to be dried, placed in a wooden pot, coated with powdered brick, and then again dried by being exposed to a scorching sun. These pills are now to be put inside a crucible, placed upon a charcoal fire, and heated steadily. Mercury, thus reduced to ashes, cures diseases affecting the mouth and throat. Contact with water makes this mercury assume the colour of gold. If again heated, it is solidified, turns white, strengthens the body, and increases longevity.

विंशो विधिः ।

सैन्धवतोरिकासूतकासीसं लकुचद्रवैः ।
 विचृष्टं खल्वमध्यस्थं सर्वं श्लक्ष्णं दिनत्रयम् ॥
 हंडिकायां तदारोप्य काष्ठवह्निर्विधीयते ।
 दिनत्रये व्यतिक्रान्ते भस्म श्वेतं ध्रुवं भवेत् ॥
 तद्गुञ्जां भक्षयेत् प्रातः प्रथमं वह्निदीपनम् ।
 सबलां च तनुं कुर्यात्पुष्टिं दृष्टिमनामयाम् ॥

Twentieth process.

Saindhava, torika (tubari), mercury, kasisa, and juice of lakucha—all these are to be steadily rubbed together in a mortar for three days, and then put into an earthen vessel, tightly closed and heated for three days by a fire made of wood fuel. Mercury will thus be reduced to white ashes. This should be taken early in the morning (dose, one rati only). It increases appetite, improves eye sight, strengthens the body, and makes the system free from diseases.

एकविंशो विधिः ।

नागार्जुनीति विख्याता दुग्धिका क्षितिमण्डले ।
 तथा विमर्दयेत्सूतं दिनमेकं निरन्तरम् ॥
 काकमाच्या च कर्त्तव्यं मर्दनं दोषनाशनम् ।
 पारदं दशटंकं स्याद्दशटंकं च गन्धकम् ॥
 नवसारस्य सारं स्यान्नयमेकत्र मर्दयेत् ।
 काचस्य कूपिके धृत्वा मुखं तस्य निरोधयेत् ॥

अष्टयामावधिर्यावत्तावत्सूतः प्रपाच्यते ।
 एवं निष्पद्यते सम्यक्भस्म बालार्कसन्निभम् ॥
 तत्सूतभस्मसंज्ञं हि सर्वकार्यार्थसाधकम् ।
 प्रवालकोमलच्छायं भूपतीनां हि वल्लभम् ॥ ८९ ॥
 भक्षयेद्रक्तिकाः पञ्च समानमरिचैः सह ।
 क्षुधोदयकरं प्रायः श्रेष्ठं कामाग्निदीपने ॥
 जराद्यान्सकलान्दोषान्योगभेदेन नाशयेत् ।
 येषु येषु च रोगेषु प्रयुक्तोऽयं रसोत्तमः ॥
 तान्सर्वान्नाशयेत्सद्यः समर्थो रसपार्थिवः ॥

Twenty-first process.

Mercury is to be rubbed constantly for one day with nagarjuni, a well-known species of dugdhika. Then, it is to be rubbed with kakmachi. This mercury, ten tankas in weight, and an equal quantity of gandhaka and narasara :—all these three are to be rubbed together and put inside a glass bottle, the mouth of which is to be tightly closed. The bottle is then to be heated for twenty-four hours by means of a baluka jantram. Thus are prepared ashes of mercury, as red as the morning sun. This mercury cures all sorts of diseases very soon. It prevents premature old age and is a very good aphrodisiac. Dose, five ratis a day.

द्वाविंशो विधिः ।

पञ्चाग्निवर्वरीलिंगिद्रवे विपाचितो रसः ।
 मर्हितः पिष्टितः भस्म स्वर्णवर्णं प्रजायते ॥

Twenty-second process.

Mercury, if rubbed in a mortar with the juice of the five different parts of chitraka, barbari, and shivalingi and thus made into a lump and then properly subjected to heat, is reduced to a red powder.

त्रयोविंशो विधिः ।

भृजङ्गवल्लीनीरेण मर्दयेत्पारदं दृढम् ।
कर्कटीकंदमुषायां संपुटस्थं पुटे गजे ।
भस्म तद्योगवाहि स्यात् सर्व्वकर्मसु योजयेत् ॥

Twenty-third process.

Mercury is to be rubbed steadily with the juice of nagaballi, and put inside a crucible made of tuber of a karkati creeper, and burnt by gajaputam. This ash serves to heighten the efficacy of a medicine with which it is mixed, and may therefore be applied in all sorts of diseases with proper *anupānam*.

चतुर्विंशो विधिः ।

काष्ठोदुम्बरिकादुग्धैः रसं किञ्चिद्विमर्दयेत् ।
तद्दुग्धैः भृष्टहिङ्गोश्च मूषायुग्मं प्रकल्पयेत् ॥
क्षिप्त्वा तत्संपुटे सूतं तत्र मुद्रां प्रकल्पयेत् ।
धृत्वा तद्गोलकं प्राज्ञो मृन्मुषासंपुटेऽधिके ।
पचेत् गजपुटे तेन सूतको याति भस्मतां ॥

Twenty-fourth process.

Mercury is to be rubbed for sometime with the

milk of kasbtha-udumbara. Two crucibles are to be made of hingu already saturated with the same milk and dried. The mercury is now to be put inside these two crucibles, joined with each other, and kept inside another crucible made of mud, and tightly covered. This is now to be burnt by gajaputam, which will cause the reduction of mercury to ashes.

पञ्चविंशो विधिः ।

वटक्षीरेण सूताश्रौ मर्दयेत् प्रहरद्वयम् ।

पाचयेत्तेन काष्ठेन भस्मो भवति तद्रसः ॥

Twenty-fifth process.

Mercury and mica are to be rubbed together for six hours with the milk of bata (banyan tree), and burnt inside a samputam by a fire made of banyan wood. This will result in the incineration of mercury.

मृतपारदस्य लक्षणम् ।

अतेजाश्चागुरुः शुभ्रो लोहहाऽचञ्चलो रसः ।

यदानावत्तेते बह्वौ नोद्धं गच्छेत् तदामृतः ॥

Incinerated mercury is devoid of lustre. It is light, white, killer of metals, devoid of subtleness, and it does not sublime, if placed upon fire.

पारदभक्षणे अनुपानम् ।

पिप्पलीमरिचशुंठीभार्गीभिः मधुना सह ।

कासश्वासप्रशमनो शूलस्य च विनाशनः ॥

हरिद्राशर्करायुक्तो रुधिरस्य विकारनुत् ।
 त्रूथषणं त्रिफला वासा कामलापाण्डुरोगजित् ॥
 शिलाजतु तथैलाच शितोपलसमन्वितः ।
 मूत्रकृच्छ्रे प्रशस्तोऽयं सत्यं नागाज्जुनोदितम् ॥
 लवंगकुसुमं पत्री हिङ्गुलमकलंकरा ।
 पिप्पली विजया चैव समान्येतानि कारयेत् ॥
 कर्परादङ्गपादानि नागाङ्गागाङ्गकं क्षिपेत् ।
 सर्वमेकत्र संमर्द्य धातुवृद्धैः प्रदापयेत् ॥
 सौवर्चलं लवंगं च भूनिंबं च हरीतकी ।
 अस्यानुपानयोगेन सर्वज्वरविनाशनः ॥
 तथा रेचकरः प्रोक्तः सौवर्चलफलत्रिकः ।
 लवंगकुसुमैश्चैव दरदेन च संयुतः ॥
 तांबूलेन समं भक्षो धातुवृद्धिकरः परम् ।
 विदारीचूर्णयोगेन धातुवृद्धिकरो मतः ॥
 विजयादीप्यसंयुक्तो वमनस्य विकारनुत् ।
 सौवर्चलं हरिद्रा च विजया दीप्यकं तथा ॥
 अनेनोदरपीडां च सद्योजातां विनाशयेत् ।
 चतुर्वल्लीपलाशस्य बीजं च द्विगुणो गुडः ॥
 अस्यानुपानयोगेन कृमिदोषविनाशनः ।
 अहिफेनं लवंगं च दरदं विजया तथा ॥
 अस्यानुपानतः सद्यः सर्वातीसारनाशनः ।

सौवर्चलेन दीप्तेन चाग्निर्माद्यहरः परः ॥

बुद्बुदबोधजनकश्चैव सिद्धनागेश्वरोदितम् ।

गुडूचीसत्वयोगेन सर्वपुष्टिकरः स्मृतः ॥

Incinerated mercury, if taken with pippali, maricha, shunthi, bhargi, and honey, cures cough, asthma, and colic. It purifies the blood, if taken with turmeric and sugar. It cures jaundice and anaemia, if taken with trikatu, triphala, and the juice of basaka. It is to be used in stricture with shilajatu, elachi, and sugar-candy. Labanga, jatipatri, hingula, akalankara, pippali, bhanga—all of these are to be taken in equal quantities, and in one eighth the quantity of each of these is to be taken camphor, and nagakeshara is to be taken half of lavanga etc.—all of these are to be rubbed together and taken with incinerated mercury for the purpose of increasing the dhatus *

Incinerated mercury cures all sorts of fever, if taken with, sanbarchala salt, labanga, bhunimba, and haritaki. It serves as a purgative, if taken with saubarchala salt, and triphala. It increases the dhatus, if taken with labanga, and betel leaf. It may also be taken with the powdered bidarikanda, for the same purpose. It cures vomiting, if taken with bhanga and jamani. It cures all sorts of diseases relating to the belly, stomach, and abdomen, if taken with saubarchala salt, haridra, bhanga, and jamani. It kills worms, if taken with chaturballi, palasha seeds, an

* The dhatus are the seven essential substances composing the human system.

double their quantity of molasses. It cures all sorts of diarrhoea, if taken with opium, labanga hingula, and bhanga. It cures loss of appetite, if taken with saubar-chala salt and jamani.

अन्यत् प्रमाणम् ।

पित्ते शर्करयामलेन च समं वाते च कृष्णायुतः ।
दद्याच्छेषमणि शृङ्गवेरसहितं जम्बीरनीरैर्ज्वरे ॥
रक्तोत्थे मधुना प्रवाहरुधिरे स्यान्मेघनादोदके ।
दद्याच्चाथ कृतातिसारविकृतौ रोगारिसङ्गं रसम् ।

Incinerated mercury cures all sorts of ailments due to the predominance of pitta, if taken with sugar and amalaki. It cures all sorts of ailments due to the predominance of vayu, if taken with pippali.

It cures all sorts of ailments due to the predominance of pblegm, if taken with ginger juice. It cures fever, if taken with lemon juice. It cures all the ailments due to the impurities of the blood, if taken with honey. It cures dysentery, blood discharges in general, and diarrhoea, if taken with tanduliyaka.

पारदमस्मप्रयोगः (अन्यविधः) ।

रोगोक्तयोगयुक्तोऽयं रक्तदूषणार्थो भवेत् ।
समुस्तपर्पटकाथो भस्मसूतो हरेज्वरम् ॥
रामूलकषायेण पिप्पल्या च समस्तजम् ।
त्रिकामयया नासाग्निपित्त्या चाक्षपित्तनुत् ।
कण्टकारीकषायेन पिप्पल्या च स कासञ्जित् ॥

अजायाः चीरसिद्धेन कणायुक्तेन सर्पिषा ।
त्रिफलागन्धकव्योषगुडैर्वा क्षपयेत् क्षयम् ॥

Use of the ashes of mercury.

The ashes of mercury can cure every disease, if taken with that particular anupanam (accompaniment), specially efficacious in that disease. It cures fever, if taken with the decoction of musta and parpati. It cures a fever due to an abnormal excess of the three doshas i.e. (typhoid and similar fevers), if taken with the decoction of dasamulam and powdered pippali. It cures raktapittam, if taken with honey and powdered haritaki or with the juice of vasaka and powdered pippali. It cures kasa or kapha, if taken with the decoction of kantakari and powdered pippali. It cures consumption and pthisis, if taken with ghee and pippali, already boiled with goat's milk, dried and powdered, or with the triphala, gandhaka, trikatu, and old molasses.

हिक्कां निहन्ति रुचकबीजपुराम्लमात्रिकैः ।
छर्दिर्दाहौ मधुसिताम्लसिद्धिसिताम्बुभिः ॥
अर्शांसि तैलसिन्धूत्थपुटपाचितशूरणैः ।
त्वक्प्लवकषायेण श्रुतेनोदशिवदम्भसा ॥
चीरिण्या वाऽप्यतीसारं विसूर्ची कणहिङ्गुन
अजीर्णं काञ्जिकैरगडकाथपथ्यावलोहतः ॥

कषायपल्लवैः पक्वो बालविल्वः सनागरः ।
 सगुडो सरसो हन्ति विम्बिसीं दारुणामपि ॥
 विल्वकर्कटिकागर्भमसूरकथिताम्बुना ।
 कृच्छ्रं मृतरसः क्षीरगोक्षुरक्षीरमाक्षिकैः ॥

The ashes of mercury cure hiccough, if taken with saubarchala salt, the juice of bijapura, and honey. It cures vomiting and inflammation, if taken with honey, sugar, fried paddy, mudga, and sugar water.

It cures piles, if taken with shuranam, burnt by putam, and mixed with oil and rock salt. It cures diarrhoea, if taken with the decoction of the bark and blossoms of a kshiri tree, mixed with butter water. It cures cholera, if taken with pippali and hingu. It cures indigestion, if taken with kanji or with powdered haritaki, and decoction of the root of eranda. It cures an awful bimbisi, if taken with the decoction of blossoms of a kshiri tree, dried bilba fruit (unripe), and shunthi, mixed with molasses. It cures mutrakrichhra, if taken with the decoction of dried bilva fruit, inner part of a karkatica fruit, and masura, or with milk and gokshura, or with milk and honey.

पारदभस्मशिलाजतुकृष्णालौहमल

त्रिफलाकुलिबीजम् ।

ताप्यनि ॥ रजतोपलकान्तव्योष

रजः खपूरश्च कपित्थम् ॥

सर्वमिदं परिचूर्ण्य समांशं भावित
 भृङ्गरसं दिवसादौ ।
 विंशतिवारमिदं मधुलीढं विंशति
 मेहहरं हरिदृष्टम् ॥

Incinerated mercury, silajatu, pippali, mandura, triphala, akuli seeds, swarna-makshika, haridra, gandhaka, kanta iron, trikatu,—all of these are to be taken in equal quantities, powdered, and then mixed and subjected to bhavana for twenty times. This medicine, if taken in the morning with honey, cures twenty different kinds of gonorrhoea and spermatorrhoea.

न्यग्रोधोत्तान्दीर्घां काथयुक्तो मृतो रसः ।
 पथ्यारसोनगोमूत्रैः प्लीहगुल्मनिवहणः ॥
 कलाययूषशम्बुकक्षाराभ्यां पक्तिशूलनूत् ।
 सत्रयूषणतिलकाथेनामशूलस्य नाशनः ॥

Incinerated mercury cures enlargement of the spleen and gulma, if taken with the decoction of nyagrodhadi or ashanadi, mixed with haritaki, rasona and cow's urine. It cures pacti-sulam, if taken with the juice of peas mixed with the kshara of conch shell. It cures amasulam, if taken with the decoction of tila, mixed with the trikatu.

नवनीतसुधाक्षारभाविताभययोदरे ।
 स हितः सहितो यष्टिवारिणा कामलामये ॥

फलत्रिकादिकाथेन पाण्डुशोफे सकामले ।

शोफे सविश्वभूनिम्बकाथगोमूत्रसंयुतः ।

निम्बामलककङ्कष्टैः प्रशस्तः स मृतो रसः ॥

Incinerated mercury cures udara-rogam, if taken with powdered haritaki, previously subjected to bhavana with butter, aconite, and kshara. It cures jaundice, if taken with the decoction of jastimadhu. It cures sotham attended with anaemia, if taken with the decoction of triphala. It cures sotham, if taken with the decoction of shunthi and bhunimba, mixed with cow's urine, nimba, amalaki, and kankustha.

रसोनराजिकावह्निनीलिमार्कवपल्लवैः ।

तुल्यं भल्लातकं क्षिप्वा क्षीरे तैलं विपाचितम् ॥

भूशिरीषसुपर्णाख्यपञ्चाङ्गमाक्षिकं घृतम् ।

रसं च लीढा कुषार्त्तो लिम्पेत् त्रिकटुना तनुम् ॥

रसगन्धकपिष्ट्या वा कटुतैलाभियुक्तया ॥

Oil is to be prepared with rasona, rajika, chitraka, nili (indigo), bhringaraja leaves, and an equal quantity of bhallataka. Ghritam is also to be prepared with bhusirisa, and the five important parts (viz root, bark, flower, leaves, and fruits) of nagakeshara, —A man suffering from leprosy should take every day in due doses the oil and the ghritam, mixed with honey and ashes of mercury, and should also apply powdered trikatu all over his body, or

anoint it with mustard oil, mixed with mercury and sulphur, both purified.

कर्पूरवल्लीसहनिम्बतैलपाताल

मूलीरसभावितेन ।

रसेन लिह्यात् ससुवर्णकं वा

विचूर्णितं पुष्परसं स कुष्ठी ॥

फेणिलफलाहिदूर्वीकन्दरसं.

खादतोऽनुदिनम् ।

फेणिलमूलोद्वर्तनमाचरतोऽपि

च कुतः कुष्ठम् ॥

A leper may also take every day honey, well rubbed with gold reduced to ashes, and with dead mercury, previously subjected to bhavana with karpura balli, nimba oil, and juice of patala-muli. He should also take every day phenila fruit, ahi, and tuber of darvi, and get himself rubbed all over his body with the root of phenila tree. Leprosy is to be cured in this manner.

चित्रकवानरिवायसीतुण्डीवाकुचिका

द्विगुणाः परिपीताः ।

मूत्रयुता तसूतसमेतास्तक्रभुजः

शमयन्ति किलासम् ॥

A man is cured of kilasam, if he takes one part of dead mercury, and two parts of each of the follow-

ing ;—chitraka, banari, kakatundi, bakuchi—all rubbed well with cow's urine, and also takes some butter-milk every day.

द्रु तगगनमरीची वाकुचीतालपत्रयौ
 सलिलरिपुनकुलयौ कृष्णशुगठौ सभृङ्गौ ।
 मरिचमसितसोमरिचत्रकाङ्गोलबीजं
 वरतिलशशिलेखे त्वक् च शाखोटकस्य ॥
 फलत्रयं च तत् सर्वं मृतसूतसमन्वितम् ।
 क्षीरान्नवर्त्तनो जग्ध्वा श्वित्रमाशु निवर्त्तयेत् ॥

Leucoderma or white leprosy is cured very soon, if the patient lives on rice with milk, and takes the ashes of mercury with the following as anupanam (or accompaniment):—essence of mica, marubaka, somaraji, talamuli, ijjala, jatamansi, rasanjana, shunthi, bhringaraja, maricha, dhava tree, karpura, chitraka root, ankola seeds, haridra, tila, guduchi, bark of shakhotaka tree, and the triphala (all rubbed, of course, with honey. Dose of the accompaniment—one fourth of a tola in all).

सनिम्बपल्लवक्षौद्रः क्रिमीन् हन्ति मृतो रसः ।
 पीतो रसोनसिद्धेन तैलेनानिलजान् गदान् ॥
 विश्वैरगडशृतक्षीरसहितो गृध्रसीं जयेत् ।
 गुडाभयागुडू च्यम्बुयुक्तः पवनशोणितम् ॥

त्रिकटुत्रिफलावेल्लैः समांशगुग्गुलुर्जयेत् ।
 वातारि तैलसंयुक्तः स्थौल्यं भस्मरसो ध्रुवम् ॥
 मधूदकाभ्यां युक्तो वा काश्यं तु शर्करान्वितः ।
 हिङ्गुसौवर्चलव्योषमूत्रसिद्धेन सर्पिषा ॥
 रसो हन्यादपस्मारमुन्मादं च तथाञ्जनात् ।
 मधूककुनटीताक्षर्यपारावतमलैर्युतः ॥

Dead mercury kills worms, if taken with blossoms of nimba. It kills all sorts of diseases due to an excess of bayu (air), if taken with oil, boiled with garlic. It cures gridhrasi (sciatica), if taken with milk boiled with shunthi (dried ginger), and the root of castor tree. It cures bata-rakta, if taken with molasses, haritaki, and decoction of guduchi. It cures obesity, if taken with the trikatu, triphala, bidanga, each equal in quantity, plus purified guggulu, equal in quantity to all these three combined—all rubbed with a sufficient quantity of castor oil. It may also be taken with water mixed with honey for the same purpose. It cures thinness, if taken with sugar. It cures insanity and hysteria, if taken with ghritam (clarified butter) boiled with hingu, saubarchala salt, the trikatu, and cow's urine. It also cures the same diseases, if used as a collyrium after being mixed with madhuka, manas-sila, rasanjana, and the stool of pigeon.

धान्याम्लपिष्टाष्टमपिप्पलीकान्
 कार्पासबीजान् करमर्दकेन ।

आदाय तैलं मृतसूतयुक्त
 मक्षिणं प्रयुञ्जीत विशीर्णरोमणि ॥
 वर्चूरनिम्बकिसलाजपूरीषधूमैः
 कांस्येक्षुराश्मवनितास्तनजेन घृष्टम् ।
 भङ्गातधूपितरसाञ्जनमञ्जयित्वा
 साभ्यञ्जनस्नपनमक्षिरुजं निहन्ति ॥
 महाभेरीमूलं तुरगपृथुकाम्बोधिकुवलं
 रसो जम्बीराम्लं जयति तिमिरं काचमपि च ।
 उपात्तं जीमूताद्रविजधरपर्णाम्बुमृदिताद्
 रसस्तैलं लेपादिह विविधजाड्यं च गुदजान् ॥

Falling in of hairs in the eye-lids is cured by the application of killed mercury, rubbed with oil prepared with one-eighth its quantity of the following three, combined and rubbed with kanji :—

Pippali, seeds of karpasa and karamarda. All sorts of eye diseases are cured, if dead mercury, already subjected to bhavana with bhallatak and rubbed with the following is used as a collyrium :—barbura, blossoms of nimba, burnt goat's stool, killed kansya, kokilakshya, manasila, and human milk. The patient, in this case, after taking the collyrium, is to have his whole body well rubbed with oil, and then take a bath. Dead mercury cures timira (loss of eye-sight) and kacha (cataract), if used as a collyrium mixed with the following :—Mahabheri roots, aswagandha, hingupatri, bodhi, kola, and lime juice. Dead mer-

cury cures all sorts of diseases pertaining to the rectum, by external application, when rubbed with oil extracted out of ghosha fruits, previously subjected to bhavana with the milk of arka.

त्रिफलापटोलमूलव्योषगुडू चीविडङ्गबीजानि ।

समगुग्गुलूनि मारितरसमिलितानि ब्रणघ्नानि ॥

ग्रन्थीन् विनाशयेत्तेषां लेपो मूलरसान्वितः ।

नारिकेलोदकं तद्वत् पीतं हन्ति मसूरिकाः ॥

The triphala, patola root, the trikatu, guduchi, bidanga seeds, and guggulu, equal in quantity to all of the foregoing combined—all of these taken together, cure carbuncle, if mixed with dead mercury. The juice of mulaka, mixed with the ointment just mentioned, cures granthi. Cocoanut water, mixed with killed mercury, cures measles, and small pox.

कार्पासपल्लवानन्तारसतैलयुतो हितः ।

अस्थिस्त्रावे मृतरसो विषे स्थावरजङ्गमे ॥

तण्डूलीयकमूलेन वीरामूलेन वा युतः ।

तण्डूलोदकसंमिश्रः पट्टाएट्टलेऽपि ॥

Dead mercury, mixed with oil and the juices of cotton leaves and anantamulam, cures Osteomyclitis, or discharge of a liquid substance through a particular part of a bone, and cures poisons of all sorts, organic and inorganic. The same purpose is served if dead mercury is mixed with

rice water, * juice of tanduliyaka, or satabari, and used either as a drink, or as a snuff, or as an unguent.

सुरभिशकृद्गरसभावितकर्पूरसमन्वितो मृतः सूतः ।
स्थावरजङ्गमकृत्रिमविषजिद् गुञ्जामितो दध्ना ॥

Dead mercury, taken in one rati with curd and camphor, previously subjected to *bhavana* with the juice of cowdung, cures all sorts of poison, organic, inorganic, and artificial.

सुनागभस्मना युक्तमथ सूतस्य भस्मना ।
जीर्णस्य हेमः षण्मासाच्छतावर्या रसेन च ॥
त्रिफलां मधुसर्पिभ्यां खादिरासनभाविताम् ।
मृतहेमरसोपेतां भक्षणञ्च क्षयेद् जराम् ॥
गन्धकेन हतं सूतं कान्तं धात्रीरसेन च ।
त्रिफलासहितं खादेज्जीवेदाचन्द्रतारकम् ॥
चित्रकं त्रिफला भृङ्गो हरिद्राञ्जनपत्रिका ।
रसस्त्रिमधुरश्चापि जरावैरुष्यनाशनः ॥

Gold, killed with incinerated lead and incinerated mercury, destroys senility, if taken for six months with the juice of satabari. The same purpose is served by taking the triphala, already subjected to *bhavana* with the decoctions of khadira and asana, respectively, and mixed with incinerated gold and incinerated mercury. One can live an incredibly

* Powdered rice immersed for some time in four times its weight of water gives rise to rice water.

long life, if one takes every day regularly, mercury, killed with sulphur, and kanta iron, killed with the juice of amalaki, mixed together with the triphala. Chitraka roots, the triphala, bhringaraja, haridra, anjana leaves, killed mercury, clarified butter, sugar, and honey—all these taken together, serve to remove senility and ugliness of appearance.

रसौषधीनां* रसभावितश्च

सितायुतक्षीरमधूदकाज्यैः ।

जरां रसो हन्ति च कान्तपात्रे

क्षीरं शृतं काञ्चनपादपिष्ट्या ॥

Senility is destroyed by dead mercury, previously subjected to bhavana with the herbs having the power of controlling mercury, if taken with sugar, milk, honey, water, and clarified butter, all rubbed together with incinerated gold, one fourth in quantity of the mercury, taking of this medicine being followed by the patient drinking some milk, boiled in a kanta iron pot.

वज्रपञ्जररसः ।

सर्व्वव्याधिविनाशार्थं वज्रभस्मसमं रसम् ।

हंसपादीरसैर्घृष्टं विपचेत् पुटानले ॥

तुल्यमन्यं रसं तेन पूर्व्ववन्मर्दितं पचेत् ।

यावच्छक्यं चतुर्थांशमानेनानेन भस्मना ॥

* रसौषधीनां रसमूलिकानामिस्वर्यः ।

अम्लपिष्टेन सौवर्णं पत्रमालिप्य मारयेत् ।
 राजिकाद्धाद्धं मारभ्य यावन्माषं विवर्द्धितः ॥
 चित्रकाद्रं कसिन्धूत्थतीक्ष्णासौवर्चलैः सह ।
 सेवितः पलपयर्थन्तं रसोऽयं वज्रपञ्जरः ।
 शरणयः परिभूतानां व्याधिवाद्धं क्यमृत्युभिः ॥

Bajrapanjara rasa.

Incinerated diamond and an equal quantity of killed mercury are to be rubbed with the juice of hansapadi and burnt by *putapaka*. The product is then to be rubbed again with an equal quantity of killed mercury and burnt in the same manner. This ash is then to be rubbed for some time with kanji for coating the surface of four times its weight of gold leaf to be killed in the usual manner. The product, thus obtained, is to be taken with chitraka root, ardraka (ginger), saindhava salt, bacha, and saubarchala, in doses of half a rajika to be gradually increased to one masha per day, total quantity taken by a patient being one palam. This medicine, called 'bajra panjara,' is a saviour of people overwhelmed with diseases, senility, and impending death.

पञ्चामृतः ।

हेममाक्षिककान्ताभ्रमुक्तावज्रं समं समं
 रसे सहेन्नि सप्ताहं मूलिका रसमर्दितम् ॥

* मूलिकाः सर्पाक्षी प्रभृति रसमूलिकाः ।

तां पिष्ट्वा यन्त्रयोगेन पचेत् पञ्चामृताह्वयः ।
रसोऽयं मधुसर्पिभ्यां युक्तः पूर्वाधिको गुणैः ॥

Panchamrita.

Swarnamakshika, kanta iron, mica, pearls, and diamond, taken in equal quantities, (all purified and reduced to ashes), are to be rubbed for one week with mercury which has already swallowed gold, and with the juice of one of the several herbs known as rasamulikas (or herbs required for mercurial operations), and made into a lump which is to be heated by means of a Jantram (crucible, or samputam, or bhudhara-jantram). The medicine, thus prepared, is called panchamrita. It is more efficacious than the foregoing (i.e., bajrapanjara rasa), if taken with honey and clarified butter.

अथ रससेवाविधिः ।

प्रातरेव पुरतो विरेचनं तद्दिनोपवसनं विधाय च ।
तत्परेऽहनि च पथ्यसेवनं तत्परेऽहनि रसेन्द्रसेवनम् ॥

Take a purgative in the morning, and fast for the whole day. Take some light diet next day, and commence taking mercury from the day after.

—मतान्तरम्—

क्षेत्रीकरणम् ।

वमनरेचनादिभिः शुद्धो लब्धबलः पुमान् ।
प्रातः प्रातः कणापथ्याविश्वसैन्धवचित्रकः ॥

पीत्वा संरक्षणायाग्नेरीषदुष्णैश्च वारिणा ।
 मृङ्गामलकनिर्यासे भावितं व्योमकान्तयोः ॥
 भस्मायःसंपुटे धान्ये स्थापितं मधुसर्पिषा ।
 खादेन्नृशि कणापथ्ये मासमेकं तथा पुनः ॥
 क्षेत्रीकरणमित्युक्तं मुनिभिः सर्वदर्शिभिः ।
 विधेयं तद् यथासाध्यं प्रागेव रससेवायाः ॥

Preparations for taking mercury.

One should observe the following rules for one-month, before one commences taking mercury :—
 The system is to be purified by purgation, vomiting etc., and then, after recovery of strength, the patient is to take every morning powdered pippali, haritaki, shunthi, saindhava, and chitraka root, mixed with tepid water. This will serve to maintain the power of digestion. He is also to take every night, for one month, with a little of pippali, haritaki, honey, and clarified butter, incinerated mica and kanta iron, previously subjected to bhayana with the juice of bhringaraja and amalaki, and confined within an iron samputam, kept in a heap of paddy for some time. This is what is called the kshetrikaranam or preparation of the soil.

—मतान्तरम्—

स्निग्धं स्निग्धविरिक्तं यस्त्रीरुजं सिद्धभेषजैः ।
 एतत् क्षेत्रं समासेन रसबीजार्पणक्षमम् ॥

स्निग्धं प्रतित्रिदिनं घृतसैन्धवपानेन ।
 विरिक्तमिच्छाभेदिना वान्तं वचादिरसेन ॥
 पलाशबीजं विडङ्गं गुडमोदकमक्षणात् कीटपातनम् ।
 नीरुजं समुत्सरनयनं वा परिशीलितैः ॥
 शृङ्गाराभ्रलक्ष्मीविलासाद्यभ्रसत्तप्रधानप्रयोगैः ।
 इति शुद्धो जातबलः शालयोदनजाङ्गलादिमांसरसैः
 चेत्रीकृतनिजदेहः कुर्वीत रसायनं मतिमान् ॥
 अकृते चेत्रीकरणे रसायनं यो नरः प्रयुञ्जीत ।
 तस्य कामति न रसः सर्वाङ्गदोषकृद्भवति ॥
 घनसत्त्वपादजीर्णोऽर्द्धकान्तजीर्णश्च तीक्ष्णसमजीर्णः ।
 चेत्रीकरणाय रसः प्रयुज्यते भूय आरोग्याय ॥
 योऽग्निसहत्वं प्राप्तः स जातो हेमतारकर्त्ता ।
 शुद्धरसश्च भुक्तो विधिना सिद्धिप्रदो भवति ॥

The soil of a human system is rendered fit for receiving the seed of mercury, after it is soothed, soothingly purged, and freed from ailments. It can be soothed with clarified butter, taken with a little of saindhava, every third day. It can be purged by a purgative called the *Ichhavedi bati*. It can be made to vomit by the juice of bacha etc. It can be freed from worms by palasha seeds and bidanga, taken with molasses. It can be freed from minor ailments by such medicines as shringarabhra, lakshmbilasa, etc. which contain a good deal of the essence of mica. It can get strong, after purification, by taking Shali rice

with meat juice of a salutary character. An intelligent man should get himself thus purified and strengthened, before he commences taking mercury for the purpose of removing diseases and senility. The man who takes mercury, without preparing the soil of his physical system in the aforesaid manner, does not derive any benefit from the medicine which rather proves harmful. * Only mercury of the following kinds is considered commendable for medicinal use :

(a) Incinerated mercury exhausted with one fourth its quantity of the essence of mica. (b) incinerated mercury exhausted with half its quantity of kanta iron, and (c) incinerated iron exhausted with an equal quantity of steel.

The mercury which does not undergo any change by the application of heat can create gold and silver. Even purified mercury (not incinerated) is competent to cure diseases, if taken in the prescribed manner.

अथ एससेवकस्य मात्रा ।

घनसत्त्वकान्तताम्रसंश्लिष्टादिष्वीर्यस्य

सूतस्य गुञ्जा वृद्ध्या माषकमात्रं परा मात्रा ॥

The dose of incinerated mercury exhausted with essence of mica, kanta iron, copper, brass, steel etc. is one gunja or rakti per diem, to be gradually increased to one masha.

* This refers to the taking of mercury alone, purified or incinerated, and does not apply to medicines containing mercury with other metals.

प्रकारान्तरम् ।

गुजामात्रं रसभस्म हेमजीर्णान्तु भक्षयेत् ।
 द्विगुणं तारजीर्णस्य रविजीर्णस्य च त्रयम् ।
 तीक्ष्णाभ्रकान्तजीर्णस्य माषा मात्रा प्रकीर्त्तिता ॥

Another view.

The dose of incinerated mercury exhausted with gold is one rakti ; that of mercury exhausted with silver is two raktis, that of mercury exhausted with copper is three raktis, and that of mercury exhausted with steel, mica, and kanta iron is one masha or 8 raktis per day.

प्रकारान्तरम् ।

ब्रह्ममेकं नरेऽश्वे तु गद्याणैकं गजे द्वयम् ।
 सर्वरोगविना तार्थं भिषक् सूतं प्रयोजयेत् ॥

Another view.

For the cure of all sorts of diseases, mercury is to be given in doses of two raktis to a human being, 32 raktis to a horse, and 64 raktis to an elephant.

नागवद्गादिभिर्वद्धं विषेणोपविषेण वा ।
 मूत्राच्छुक्राद्धठाद् बद्धं त्यजेत् कल्पे रसायने ॥
 भस्मनस्तीक्ष्णाजीर्णस्य लक्षायुः पलभक्षणात् ।
 दशपलं यदि प्राज्ञस्तीक्ष्णाजीर्णस्य भक्षयेत् ॥
 स्वस्थो जीवेन् महाकल्पं प्रलयान्ते शिवं व्रजेत् ।
 भस्मनः शुक्लजीर्णस्य लक्षायुः पलभक्षणात् ॥

भस्मनः हेमजीर्णस्य कोट्यायुः पलमक्षणात् ।
 विष्णुरुद्रशिवस्वञ्च द्वित्रिचतुर्भिराप्नुयात् ॥
 गुञ्जामात्रं हेमजोर्णं ज्ञात्वा चाग्निबल्लाबलम् ।
 घृतेन मधुना चाद्यात् ताम्बूलं कामिनीं भजेत् ॥
 एको हि दोषः सूक्ष्मोऽस्ति भक्षिते भस्मसूतके ।
 त्रिसप्ताहाद् विशेषेण कामान्धो जायते नरः ॥

Mercury, solidified with lead, tin, poison, semi poison, urine, or semen, is to be avoided for medicinal purposes. One who takes one palam of incinerated mercury, exhausted with steel or copper, lives a lac of years. If he takes ten palams he lives for a kalpa. One who takes one palam of incinerated mercury, exhausted with gold, lives for one crore of years. It is desirable to take every day one rakti of incinerated mercury, exhausted with gold, and mixed with clarified butter and honey, and to enjoy betel leaf and the company of a passionate wife, so long as the medicine is taken. There is only one difficulty arising out of taking incinerated mercury, viz, the man gets intoxicated, in three weeks, with sexual desires.

नारीसङ्गाद् विना शीघ्रमजीर्णं तस्य जायते ।
 मैथुनाच्चलिते शुक्रे जायते प्राणसंशयः ।
 युवस्था जल्पनं कार्य्यं तावत्तु मैथुनं त्यजेत् ॥
 ब्रह्मचर्य्येण वा योगी सदा सेवेत सूतकम् ।
 समाधिकारणं तस्य कामणं परमं मतम् ॥

प्रभाते भक्षयेत् सूतं पथ्यं यामद्वयाधिके ।
 न लक्षयेत् त्रियामन्तु मध्याह्ने खलु भोजयेत् ॥
 सकणाममृतां मुक्ता मलबन्धे स्वपेन्निशि ।
 ताम्बुलान्तर्गते सूते किट्टबन्धो न जायते ॥

The man gets indigestion, if he avoids all connection with women, at the time he takes incinerated mercury. A sexual intercourse, on the other hand, leads to the waste of semen and proves very dangerous. Such being the case, it is desirable to dally with women without having any sexual intercourse. The taking of incinerated mercury every day, by a yogi who observes absolute celibacy, serves to help him in attaining samadhi (a state of mind in which the individual soul merges itself into the Brahman or the Universal Soul). The mercury is to be taken in the morning, diet being taken just after mid-day. In case of constipation, caused by the medicine, take a decoction of guduchi and pippali, just before going to bed for sleep. Incinerated mercury, taken with a betel leaf, does not give rise to constipation.

अथातुरो रसाचार्यं साक्षाद्देवं महेश्वरम् ।
 साधितं च रसं शृङ्खदन्तवेणवादिधारितम् ॥
 अर्चयित्वा यथाशक्ति देवगोब्राह्मणांस्तथा ।
 पर्याखण्डे धृतं सूतं भक्षयेदनुपानतः ॥

The patient is to greet the Rasacharya with the same degree of respect as is due to Maheswara. He

should also welcome the mercury, duly prepared, and kept in pots made of horn, ivory, bamboo reeds, etc. The patient is also to pay his reverences to the gods, cows, and Brahmans and to take the medicine with a piece of betel leaf.

रससेवने पथ्यापथ्यम् ।

(१)

हितं मुद्गाम्बुदुग्धाज्यं शाल्यन्नञ्च विशेषतः ।
 शार्कं पौनर्णवं वास्तु मेघनादञ्च यूथिकाम् ।
 लवणं मागधीं मुस्तं पद्ममूलानि भक्षयेत् ।
 अनुपानन्तु वै दद्याज् ज्ञात्वा रोगादिकं भिषक् ॥
 कुष्माण्डं कर्कोटीञ्चैव कालिङ्गं कारवेक्षकम् ।
 कुसुम्भिका च कर्कोटी कलम्बी* काकमाचिका ।
 ककाराष्टकमेतद्धि वर्जयेद् रसभक्षकः ॥

Dietary regulations to be observed at the time of taking mercury.

(1)

The following items of diet are considered salutary to one who takes incinerated mercury :—juice of mudga, milk, clarified butter, shali rice, punarnava, bastu, meghanada, juthika, saindhava salt, pippali, musta, and lotus roots.

* कर्कोटीति पाठान्तरम् ।

The following are considered injurious to the eater of mercury :—

Kushmanda, karkoti, kalinga, karabella, kusumbha, karkati, kalambi, and kakamachi.

(२)

भुञ्जीत शालिगोधूमयवषष्टिकजाङ्गलम् ।
 मुद्गयूषं गवां दुग्धं नित्यं स्नायात् सुखाम्भसा ॥
 रूपयौवनसम्पन्नमनुरूपां प्रियां भजेत् ।
 अभ्यङ्गं कटुतैलेन काञ्जीतैलं सुरां दधि ॥
 कालिङ्गकारवेङ्गाम्लरसोनासुरिमूलकम् ।
 द्विदलं विल्ववार्त्ताकं छत्राकं काकमाचिकाम् ॥
 अङ्गसम्मर्दनं रात्रौ जागरं स्वपनं दिवा ।
 कटुम्लतिक्तलवणं स्वादूष्णं शिशिरोदकम् ॥
 शोकवातातपक्रोधचिन्तां च परिवर्जयेत् ।
 साहसं रसलोहानां मारकञ्च विशेषतः ॥

(२)

The following are salutary to an eater of mercury :—
 Shali rice, wheat, barley, shastika rice, jangala meat
 juice, juice of mudga, cow's milk, daily bath in com-
 fortable water, and dallying with a dear wife, full of
 youth and beauty.

The following are injurious to an eater of mer-
 cury :—anointing the body with mustard oil, taking
 of kanji, oil, alcohol, curd, kalinga, karbella, things
 sour in taste, garlic, onions, rye, raddish, pulses, vilba
 fruit, brinjal, mushrooms, kakamachi, rubbing of

limbs, keeping late hours at night, sleeping in day time, and taking things which are pungent, sour, bitter, saline, and sweet in taste ; warm food, ice water, grief, current of air, exposure to the sun, anger, meditation, showing of courage and bravery, and taking of all things which serve to help the incineration of mercury and metals.

घनसारचतुर्जातकङ्कोलं कटुकीत्रयम् ।

फलं ताम्बुलवल्ली च रसस्याक्रमणं परम् ॥

The following serve to counteract the effect of mercury (and should therefore not be taken by an eater of mercury, except, of course, betel leaf, a piece of which may be taken with mercury for the purpose of removing constipation) :—camphor, chaturjata, kankola, trikatu, jatiphalam, and betel leaf.

(३)

अतिपानं चात्यशनमतिनिद्रां प्रजागरम् ।

स्त्रीणामतिप्रसङ्गं च अध्वानश्च विवर्जयेत् ॥

अतिक्रोपं चातिहर्षं चातिदुःखमतिस्पृहाम् ।

शुष्कवादं जलक्रीडामतिचिन्ताश्च वर्जयेत् ॥

पातकश्च न कर्त्तव्यं पशुसङ्गश्च वर्जयेत् ।

चतुष्पथे न गन्तव्यं विन्मूत्रश्च न लङ्घयेत् ॥

धीराणां निन्दनं चैव स्त्रीणां निन्दाश्च वर्जयेत् ।

सत्यं वाक्यं सदा ब्रूयादप्रियं न वदेद् वचः ॥

कुलत्थानतसीतैलं तिलान् माषान् मसूरिकान् ।
 कपोतान् काञ्जिकञ्चैव तक्रभक्तञ्च वज्जयेत् ॥
 हेमचन्द्रादिकञ्चैव कुक्कुटानपि वज्जयेत् ।
 कटुम्लतिक्लवणं पित्तलं वातलञ्च यत् ॥
 वदरं नारिकेलञ्च सहकारं सुवर्चलम् ।
 नागरङ्गं कामरङ्गं द्राक्षां शोभाञ्जनं त्यजेत् ॥
 न वादजल्पनं कुर्याद् दिवा चापि न पर्यटेत् ।
 नैवेद्यं नैव भुञ्जीत कर्पूरं वज्जयेत् सदा ॥
 कुङ्कुमालेपनं वज्ज्यं न शयीत तथा चित्तौ ।
 न च हन्यात् कुमारीञ्च वातलानि च वज्जयेत् ॥
 क्षधात्तो नैव तिष्ठेत्तु अजीर्णं नैव खादयेत् ।
 सर्व्वक्षणां जपेन् मन्त्रं नासत्यवचनं वदेत् ॥

(3)

The following are to be avoided by one who takes mercury :—Excess of drinking water, excess of food, excess of sleep, excess of avoiding sleep, excess of association with women, walking, excess of anger, laugh, sorrow, and desire ; dry conversations, sports in water ; excess of thought ; commission of sin, staying near animals ; going near the junction of two roads, walking over stools and urines ; slandering of worthy people and women, telling of lies, telling of unpleasant things, taking of kurathwa grams, atasi (linseed) oil, tila, masha grams, mashura, pigeons, kanji, food mixed with whay or

butter milk, hemachandra, etc, and fowls ; taking of things which are pungent, sour, bitter, and saline ; things which increase pitta (animal heat) and vayu (quantity of air inside the human system) ; plums, cocoanuts, mangoes, subarchala salt, nagaranga (oranges), kamaranga, grapes, and sobhanjana, argumentative discussions, going for walks, uncooked rice, camphor, anointing the body with saffron, lying upon the earth, and chastisement of virgins.

The taker of mercury should on no account abstain from food, when hungry, and should also not take any food unless he gets hungry. He should chant the aghora mantram, if possible, as long as he can.

(४)

घृतसैन्धवधन्याकजीरकाद्र कसंस्कृतम् ।

तण्डुलीयकधन्याकपटोलालम्बुषादिकम् ॥

गोधूमजीर्णशाल्यन्नं गव्यं क्षीरं घृतं दधि ।

हंसोदकं मुद्गरसः पथ्यवर्गः समासतः ॥

One who takes mercury should take the following vegetables, duly cooked with clarified butter, saindhava, dhanya, jiraka, and ginger :—tanduliyaka, dhanya, patola, alambusha. He should also take wheat, shali rice of more than one year's, but less than three year's standing, cow's milk, clarified butter, curd, water exposed to the sun during day time and to moonlight during night, juice of mudga, and all good diets in general.

बृहतीविल्वकुष्माण्डं वेप्रायं कारवेल्बकम् ।
 माषं मसूरं निष्पावं कुलत्थं सर्षपं तिलम् ॥
 लङ्घनोद्भर्त्तनज्ञानताम्रचूडासुरासवान् ।
 ज्ञानूपमांसं धान्याम्लं भोजनं कदलीदले ॥
 कांस्ये च गुरुविष्टम्भितीक्ष्णोष्णं च भृशं त्यजेत् ॥

The following are to be avoided by one who takes mercury ;—brihati, vilba fruit, kushmanda, the tender part of betas, karbella, masha (bean, horse gram), masura, shmibi, kulattha, sarshapa, tila, fasting, rubbing the body with oil, etc, bathing, fowl's meat, white mustard, liquors in general, fermented drinks, meat of anupa animals, kanji, taking meal on banana leaf and on bell metal pots, heavy meal, and pungent and hot things.

कण्टारीफलकाञ्जिकञ्च कमठस्तलं तथा राजिका ।
 निम्बुकं कतकं कलिङ्गकफलं कुष्माण्डकं कर्कटी ॥
 कालीकुङ्कुमवृक्षकफलं कर्कोटिकायाः फलम् ।
 वृन्ताकञ्च कपित्थकं खलु गणः प्रोक्तः ककारादिकः ॥
 देवीशास्त्रोदितः सोऽयं ककारादिगणो मतः ।
 शास्त्रान्तरविनिर्दिष्टः कथ्यतेऽन्यप्रकारतः ॥

The under-mentioned articles of food stuff, with the alphabet "K" at the beginning of their names, should also be avoided by one who takes mercury :—kantakari fruit, kanji, kamatha (tortoise), oil, rye, lemon, kataka (nirmala fruit), kalingaka, kushmanda, karkati,

krishna jira, kukkuta, karabella, karkataka, brinjal, and kapittha,

कङ्कः कन्दुककोलकुक्कुटकलक्रोडाः कुलत्थास्तथा ।

कण्टारीकटुतैलकृष्णागलकः कूर्मः कलायः कणा ॥

कर्कारुश्च कठिञ्जकं च कतकं कर्कोटकं कर्कटी ।

काली काञ्जिकमेष कादिकगणः श्रीकृष्णादेवोदितः ॥

यस्मिन् रसे च कण्ठोक्तया ककारादिनिषेधितः ।

तत्र तत्र निषेध्यस्तु तदौचित्यमतोऽन्यतः ॥

The following articles of food stuff, also beginning with 'K' are to be avoided by one who takes mercury:— kangu, kanduka (betel nut), kola, kukkuta, kalacroda, kulattha, kantari, katu taila (mustard oil), krishnagala, kurma, kalaya, kana, karkalu, kathillaka, kataka, karkotaka, karkati, krishnajira, and kanji. All these are forbidden by the great Shree Krishna.

अधैधरससेवनजनितविकाराणां निवारणोपायाः ।

(१)

उद्दारे क्षति दध्यन्नं कृष्णमीनं सजीरकम् ।

अभ्यङ्गमनिलक्षोभे तैलेनारायणादिभिः ॥

अरतौ शीततोयेन मस्तकोपरि सेचनम् ।

तृष्णायां नारिकेलाम्बुमुद्गयूषं सशर्करम् ॥

द्राक्षादाडिमखर्जूरकदलीनां फलं त्यजेत् ।

रसवीर्य्यविवृद्धयर्थं दधिचीरेक्षुशर्कराम् * ॥

* क्षीरं घनावर्चितदुग्धं परित्यज्यं न तु दुग्धं तदेव विशेषेण पातव्यम् ।

शीतोपचारमन्यच्च रसत्यागविधौ पुनः ।

भक्षयेद् बृहतीं विद्धं सकृत् साधारणो विधिः ॥

*How to cure symptoms due to an improper use
of mercury.*

(1)

If the taking of mercury is followed by a coming out of gases through the alimentary canal, the patient is to be given rice with curd, and black fish cooked with jira. In case of excess of vayu (air) in the system, the body of the patient will have to be anointed with narayana taila etc. In case of restlessness of mind, cold water will have to be applied on the head. In case of excess of thirst, tender cocoanut water mixed with sugar and juice of mudga, are to be prescribed. Grapes, pomegranates, dates, banana fruits etc., are to be given up. For the purpose of increasing the potency of mercury, the following should always be avoided:—curd, condensed milk, sugar-cane juice, sugar, and all sorts of things having a cooling effect on the body. After discontinuing the taking of mercury, it is desirable that the patient should take for some time brihati fruits and vilba fruits. These are the general rules relating to the eating of mercury.

(2)

सेवया परिहार्याणां रसस्याजरणा भवेत् ।

शूलो नाभितले जाड्यं निद्रालस्यं ज्वरस्तमः ॥

अङ्गभङ्गोऽरुचिर्दाहः पिबेत्तत्र दिनत्रयम् ।
 सौवर्चलं सगोमूत्रं कर्कोटीमूलवारिणां ॥
 मातुलुङ्गस्य वाऽम्लेन माणिमन्थं सनागरम् ।
 नागवङ्गयुतः सूतः प्रमादाद्भक्षितो यदि ॥
 सैन्धवं कारवेहस्य कन्दं मूत्रैः पिबेद्भवाम् ।
 कर्कोटीगरुडोपथ्याशरपुङ्खैर्विपाचितम् ॥
 अष्टभागावशिष्टं वा गोमूत्रं सैन्धवान्वितम् ॥
 यः क्षेत्रीकरणात् परमर्चयेच्च रसं ततः ।
 सेवेत तस्य सिद्धिः स्यादन्यथा मरणं ध्रुवम् ॥

(2)

The violation of the rules relating to the taking of mercury, as referred to above, results in a failure to digest the mercury, accompanied by a colic pain on the lower part of the navel, inactivity, drowsiness, lethargy, fever, shortness of eyesight, pains all over the body, aversion to food, and inflammation of the wholebody. To remove such symptoms, one should take, for three days, suvarchala salt, with cow's urine and the juice of karkati root, or the juice of matulunga mixed with saindhava salt, and shunthi (dried ginger). A man who takes by mistake mercury containing lead or tin, should take saindhava mixed with cow's urine and the tuber of karabella; or a decoction of karkoti, guduchi, haritaki, and sharapunksha, prepared by boiling the things with cow's urine, to be reduced to one eighth its quantity and mixed with saindhava.

A man attains success in taking mercury, if, prior to his so doing, he prepares his system in a manner described above, viz by purgation, vomiting etc. ; otherwise, the action leads to death.

अन्यविधिः ।

(३)

नाभिमूले भवेच्छूलं निद्रालस्यं ज्वरोऽरुचिः ।
जाड्यं मलग्रहो दाहो रसाजीर्णे भवेन्नृणाम् ॥
रसाजीर्णमिति ज्ञात्वा ततः कुर्व्यात् प्रतिक्रियाम् ।
दिनत्रयं प्रयत्नेन क्रियमाणे रसायने ॥
कर्कोटीकन्दसम्भूतं कषायं त्रिदिनं पिबेत् ।
रसाजीर्णे पिबेद्वापि गोजलं रुचकान्वितम् ॥
विल्वसैन्धवसंयुक्तं मातुलुङ्गस्य मूलकम् ।
अज्ञानान्नागकल्केन भुक्तो यदि भवेद्रसः ॥
नागदोषविशुद्धयर्थं गोमूत्रेण समन्वितम् ।
पटुयुक्तं पिबेन्मूलं कारवेक्ष्णभवन्तथा ॥
इत्थं नागभवो दोषो नाशमायाति निश्चितम् ।
वन्ध्याकर्कोटकपुष्पं गरुडी च ततः परम् ।
असामान्यतमं मूलं क्षिप्त्वा गोजलमध्यतः ॥
अत्यम्लकटुतिक्तैश्च सूतः स्रवति सेवितैः ।
अत्यम्ललवणाहारैर्मन्दवीर्यो भवेद्रसः ।
सततं वर्जयेदेकाहारश्च रससेवकः ॥

नश्यत्यग्निरनाहारात् सूतो नैव क्रमेत्तनौ ।
 रोगशान्तिं तथा कर्तुं नैव शक्नोति पारदः ॥
 विचित्रैर्भोजनैस्तस्माद् रसं समुपवृंहयेत् ।
 निषिद्धं वर्जयेत् सर्वं रससेवाविधौ नरः ॥
 रसस्त्रावकरं वर्ज्यं भोजने चातियत्नतः ।
 अग्निमान्द्यकरं तद्द्वर्ज्यञ्चापि प्रयत्नतः ॥

(3)

Indigestion of mercury is followed by colic in the navel, drowsiness, lethargy, fever, aversion to food, dullness, constipation, and inflammation. This is remedied by taking for three days decoction of tuber of karkati ; or cow's urine mixed with saubarchala salt ; or root of matulunga mixed with powdered shunthi and saindhava. To remedy the evil effects due to the taking of mercury mixed with lead, one should take the root of karabella mixed with saindhava. The same purpose is served, if a little of bandhya karkotaka flower and garudi root is taken with cow's urine. Mercury is purged out of the body by taking a good deal of sour, pungent, and bitter things.* Mercury loses its potency by an excess of sour and salty things being taken. One who takes mercury should avoid taking meal only once a day, in as much as abstinence from food destroys appetite, with the

* The allopaths who have been using "makaradhwaaja" should take note of this. Administration of Makaradhwaaja and quinine at the same time, is found to be not only abortive but pernicious also.

result that the mercury is not absorbed in the system, leading to the failure of mercury to cure disease. The potency of mercury is therefore to be increased by a splendid diet. Practices, forbidden before, should be avoided by all means at the time of taking mercury. Diets which have the effect of purging mercury out of the body should be avoided very carefully. Those articles of food stuff which cause a loss of appetite should also be avoided.

(४)

विकारा यदि जायन्ते पारदान् मलसंयुतात् ।
सेवेत गन्धकं धीमान् पाचितं विधिपूर्वकम् ॥

(4)

The ailments due to an improper use of mercury may be removed by the use of sulphur, duly purified. (For purification of sulphur, see vol. II.)

(५) रसकर्पूरस्यावगुणः ।

सेवितोऽविधिना कुष्ठम् सन्धिवातं कफादिकम् ।
रसकर्पूरकं कुर्यात् तस्माद् यत्नेन सेवयेत् ॥

(5)

Rasakarapuram or white mercury, if not prepared in the prescribed manner, gives rise to leprosy, gout, and excess of phlegm. It is therefore to be prepared and taken very carefully.

रसकर्पूररक्षोषस्य शान्तिः ।

महिषीशकृतो नीरं धन्याकं वा सितायुतम् ।
पिबन् नीरेण मुक्तः स्याद् रसकर्पूरजैर्गदैः ॥

Ailments due to the use of rasakarpura, prepared in an improper way, are removed by taking with water, the watery portion of the stool of a she-buffalo, or dhanya mixed with sugar candy.

(६) रससिन्दूरस्यावगुणः ।

रससिन्दूरमशुद्धाद्रसाद्धिं जातं पारदबहु रोगान् ।
कुर्यात् तेषां शान्त्यै घृतमरिचरजः पिबेत् सप्तदिनम् ॥

(6)

Rasasindura, prepared out of impure mercury, gives rise to all the evil effects of using mercury, not purified in the manner described before. These evils are remedied by taking clarified butter with powdered maricha for seven days.

बलीपलितनिर्मुक्तो मृत्युहीनो भवेन्नरः ॥
जायते मन्मथाकारो नरोऽपि प्रमदारतः ।
रसायने हि निर्दिष्टं प्रायशो रससेवने ॥
बुद्धिः प्रजा बलः कान्तिः प्रभावश्च तथा बहिः ।
आरोग्यं लघुता सौष्ठवं रुचिर्गुर्व्वन्नजीर्णता ॥
रोगनाशश्च वृष्यता सततं रससेवनात् ।
नौषधं पारदादन्यन्न देवो महेशात् परः ॥
न वैद्यादपरो बन्धुर्न दानादपरो विधिः ॥

A man who takes mercury, in accordance with the procedure laid down above, becomes free from senility and death, and acquires a very handsome physique

with a steadiness of procreative energy, and development of intelligence, beauty, and physical strength. Mercury gives rise to immunity from diseases, buoyancy of the heart and of the body, cheerfulness, appetite, power of digesting heavy diet, and nutrition.

There is no better medicine than mercury, no greater god than Mahadeva, no better friend than physician, and no better deed than gift.

मृतसजीवनी गुटिका ।

कान्ताभ्रताम्रस्वर्वाजं वज्रहेम्नो रसस्य च ।
 ससाहमम्लपिष्टानां गोलके लेपितेऽन्वहम् ॥
 गोजिह्वावायसी पथ्यानिर्गुण्डीमधुसैन्धवम् ।
 स्विम्ने भूधरयन्त्रस्ये पचात् कठिनतां गते ॥
 यवचिञ्चापलाशाक्षराजिकार्पासतरङ्गुलैः ।
 आवर्त्तितान्तर्लिप्तायां मूषायां खदिराग्निना ॥
 टङ्कणं श्वेतकाचं * च दत्त्वा दत्त्वा विशोषिते ।
 मूषायां विड्योगेन समांशं हेम जारयेत् ॥
 संवत्सरं मुखधृता मृतसजीवनी मता ।
 गुटिका शस्त्रस्तम्भं च कुरुते हरते जराम् ॥

Kanta iron, abhra, swarna-makshika, hiraka (diamond), gold, and incinerated mercury—all these are to be rubbed for one week with kanji and made into a ball, which will have to be coated all over with a paste made of gojihva, kakamachi, haritaki, nirgundi,

* शुम्भकान्तमिति पाठान्तरम् ।

honey, and saindhava. This is then to be subjected to heat by means of a bhudhara-jantram, heated by fuel made of khadira wood. The crucible to be used for this purpose should be coated all over its inner part with a paste made of barley, tamarind, ashes of palasha wood, bibhitaki, rajika (rye), cotton seeds, and tanduliyaka. Powdered alum and white glass are to be gradually put into the crucible, from time to time, so long as the heating continues. In this way, the ball gets dried in fifteen days. The gold used in this case is to be incinerated by means of an equal quantity of bida being mixed with it at the time of its being heated in a crucible.

This ball, if held for one year inside the mouth, serves to restore a dying man to life and strength, and to make the body so strong as to baffle the enemies' arms, and to cure senility.

समभागजीर्णहेममाक्षिकयोगेन मारितो वृष्यः ।

घृतमधुशतावरीरसदुग्धयुतो मदनवर्द्धनः सूतः ॥

लोहितागस्त्यसारेण कृष्णारम्भाफलद्रुतम् ।

रसं च घनसारं च पीत्वा स्त्रीषु वृषायते ॥

Incinerated mercury, mixed with an equal quantity of incinerated swarna-makashika, is nutritive. Incinerated mercury, if taken with clarified butter, honey, juice of satabari, and milk, increases sexual desire. It gives an unusual power of sexual activity, if taken with the juice of red agastya flower, juice of black banana, and essence of mica.

अथ रसमूढिकाः (नियामकगणः) ।

सर्पाक्षी वन्यकर्कोटी कञ्चुकी यमचिञ्चिका ।
 शतावरी शङ्खपुष्पी शरपुङ्खा पुनर्नवा ॥
 मण्डूकपर्णी मत्स्याक्षी ब्रह्मदण्डी शिखण्डिनी ।
 अनन्ता काकजङ्घा च काकमाक्षी कपोतिका ॥
 विष्णुक्रान्ता सहचरा सहदेवा महावला ।
 वला नागवला मूर्वा चक्रमर्दः करञ्जकः ॥
 पाठा तामलकी नीली जालिनी पद्मचारिणी ।
 घण्टा त्रिकण्टगोजिह्वा कोकिलाक्षः घनध्वनि ॥
 आस्रुपर्णी क्षीरिणी च त्रिपुषा मेषशृङ्गिका ।
 कृष्णवर्णा च तुलसी सिंहिका गिरिकर्णिका ।
 एता नियामकौषध्यः पुष्पमूलदलान्विताः ॥

Controllers of mercury.

The following, with their respective flowers, roots, and leaves, are what are called the controllers of mercury:—gandhanakuli, banyakarkoti, kanchuki, jamachinchika (unripe tamarind), satabari, sankhapuspi, sharapunkha, swetapunarnava, mandukaparni, hila-machika, brahmadandi, juthika, anantamulam, kaka-jangha, kakamachi, kapotika, aparajita, pitajhinti, prasarini, pitabala, swetabala, nagabala, murba, chakramarda, karanji, patha, bhumi-malaki, nili, ghosha, padmasharini, ghanta-patali, gokshura, gojihva, kokilaksha, meghanada, akhuparni, kshirini, tripusha, meshashringi, black tulasi, kantakari, and sweta aparajita.

मतान्तरम् ।

सर्पाक्षी क्षीरिणी बन्ध्या मत्स्याक्षी शङ्खपुष्पिका ।
 काकजङ्घा शिखिशिखा ब्रह्मदण्ड्याखुपर्णिका ॥
 वर्षाभूः कञ्चुकी दूर्वा सैय्यकोत्पलशिम्बिकाः ।
 शतावरी वज्रलता वज्रकन्दाग्निकर्णिका ॥
 श्वेतार्कशिर्षूधत्तूरमृगदूर्वारसाङ्गशाः ।
 रम्भा रक्तालु निर्गुण्डी लज्जालुः सुरदालिका ॥
 मण्डूकपर्णी पाताली चित्रकं यीष्मसुन्दरः ।
 काकमाची महाराष्ट्री हरिद्रा तिलपर्णिका ।
 जाती जयन्ती श्रीदेवी भूकदम्बः कुसुम्भकः ॥
 कोशातकी नीरकणा लाङ्गली कटुतुम्बिका ।
 चक्रमर्दोऽमृता कन्दः सूर्यावर्तेषुपुष्पिका ॥
 वाराही हस्तिशुण्डी च प्रायेण रसमूलिकाः ।
 रसस्य भावने स्वदे मूषालेपे च पूजिताः ॥

The following vegetables, called the controllers of mercury, are used in the bhavana, and boiling of mercury, and also in plastering crucibles for use in mercurial operations:—gandhanakuli, kshirini, indrabaruni, hīlamochika, sankhapuspi, kaka jangha, apamarga, bhargi, akhuparni, punarnaba, kanchuki, durva, sweta-jhinti, utpalam, shimbi, satabari, asthisanhara, banya surana, agnikarni, sweta arka, shobhanjana, dhuttura, mrigadurba, kadali, racta-alu, nirgundi, lajjalu, devadali, mandukaparni, nagaballi, chitraka,

grishmasundara, kakamachi, maharastri (kanchata), haridra, tilaparni, jati, jayanti, shridevi, bhukadamba, kusumbha, koshataki, jalapippali, langali, katutumbi, chakramarda, guduchi, suranam, surjabarta, shara-punkhi, barahikanda, and hasti-shundi.

मत्तान्तरम् ।

अथैता मूलिका वक्ष्ये शुद्धसूतस्य मारणे ।
 ब्रह्मदण्डी मेघनादा चित्रकं तृणमुस्तिका ॥
 वज्रवल्ली वला शुण्ठी कटुतुम्ब्यङ्ग चन्द्रिका ।
 विषमुष्ट्यर्कलाक्षाश्च गोक्षुरः काकतुण्डिका ॥
 कन्या चण्डालिनी कन्दं सर्पाक्षी शरपुङ्गिका ।
 वस्तारकाग्रनिर्गुण्डी लज्जालु देवदालिकाः ॥
 जाती जयन्ती वारण्डी भूकदम्बं कुरुशटकम् ।
 कोषातकी नीरकणा लाङ्गली सहदेविका ॥
 चक्रमर्दोऽमृताकन्दं काकमाची रविप्रिया ।
 विष्णुक्रान्ता हस्तिशुण्डी स्नुक् पयो भृङ्गराट् पटुः ॥
 ईत्येता मूलिका ख्याताः योज्याः पारदमारणे ।
 एताः समस्ता व्यस्ता वा देया ह्यष्टादशाधिकाः ॥

The following are the drugs which are to be used in the killing of mercury. Not less than eighteen of these drugs are to be used, jointly or separately, in the operations leading to the incineration of mercury:—brahmadandi, tanduliyaka, chitraka, musta, asthisanhara, bala, shunthi, katutumbi, ardhachandra (karnas-

phota), bishamusti, arka, laksha, gokshura, kakatundi, kanya, chandalini, shuranam, sharapunkha, basta, gandhanakuli, ractagra (ractarka? or ractalu?), nirgundi, lajjalu, devadali, jati, jayanti, barahi, bhukadamba, jhinti, koshataki, jalapippali, langali, prasarini, chakramarda, guduchi, shuranam, kakamachi, suryabhacta, aparajita, hastishundi, snuhi, bhringaraja, and patu (saindhava salt).

मतान्तरम्—भारकवर्गः ।

घनवचाचित्रकगोक्षुरकटुतुम्बीदन्तिकाजातीः
 सर्पाक्षी शरपुङ्खा कन्या चण्डालिनी कन्दम् ।
 विषमुष्टिवज्रवह्नयो लज्जा देवदाली लाक्षा
 सहदेवा नीपकणा * निर्युगडी चक्रं लाङ्गलिका ॥
 माणार्कचन्द्ररेखा रविभक्ता काकमाचिकाचारकः †
 विष्णुक्रान्ता वायसतुण्डी वज्री वला शुण्ठी चैव ॥
 कोषातकी जयन्ती वाराही हस्तिशुण्डिका रम्भा ।
 मत्स्याक्षी यमचिञ्चा हरिद्रे द्वे पुनर्नवाद्वितयम् ॥
 धुस्तूरः काकजङ्घा शतावरी कञ्चुकी चैव वन्ध्या ।
 तिलभेकपर्णिका दूर्वा मूर्वा हरीतकी तुलसी ॥
 गोकसृट्काखुपरयो कर्कटीकन्दवर्गलता च ।
 मूषली हिङ्गुगुडूची शिग्रुगिरिकर्णिका महाराष्ट्री ॥

* नीरकणा इति पाठान्तरम् ।

† माणार्क लठे शाळार्क इति पाठान्तरम् ।

मार्कवसैन्धवसरणीसोमलताश्वेतसर्षपासनञ्च ।
 हंसपदीव्याघ्रपदीकिंशुकभल्लातकेन्द्रवारुणिकाः ॥
 सर्वश्चाद्धांशं वाष्टादशाधिकं वापि द्रच्यम् ।
 समारणमूर्च्छादौ च युक्तिज्ञैर्विधिवदुपयोज्यम् ॥

The following are the killers of mercury. They are to be used by the adept in causing swoon and incineration of mercury. All of them, or half their number, or at any rate, not less than eighteen of them, may be used either jointly or separately:—Musta, bacha, chitraka, gokshura, katutumbi, danti, jati, gandhanakuli, sarapunkha, kan ya, chandalini, shuranam, bishamusti, asthisanhara, lajjalu, devadali, laksha, prasarini, kadamba (balaka, according to another version), pippali, nirgundi, kasamarda, langali, mana (shala, according to another version), arka, shomaraji, surya bhacta, kakamachi, sweta arka, aparajita, kakatundi, snuhi, bala, shunthi, koshataki, jayanti, barahi, hastishundi, rambha, brahmi, jamachincha, haridra, daruharidra, swetapunarnava, ractapunarnava, dhuttur, kakajangha, shatabari, kauchuki, bandhya, karkotaki, tila, mandukaparni, durba, murba, haritaki, tulasi, gokshura, akhuparni, karkatikanda, bargalata, mushali, hingu, guduchi, shigru, sweta aparajita, jalapippali, bhringaraja, saindhava, sarani, somalata, sweta-sarshapa, ashana, godhapadi, byaghrapadi, palasha, bhallataka, and indrabaruni.

मतान्तरम् ।

सर्पाक्षी क्षीरिणी वन्ध्या मत्स्याक्षी शरपुङ्खिका ।
 ककजङ्घा शिखिशिखा ब्रह्मदण्ड्याखुपरिणिका ॥

वर्षाभूकञ्चुकी मूर्वा पटुकोत्पलचिञ्चिका ।
 शतावरी वज्रलता वज्रकन्दा त्रिकर्णिका ॥
 मण्डुकपर्णी पाटली चित्रकं ग्रीष्मसुन्दरः ।
 काकमाची महाराष्ट्री हरिद्रा तिलकर्णिका ॥
 श्वेतार्कशिग्रुधुस्तूरमृगदूर्वा हरीतकी ।
 गुडूची मूषली पुङ्खा भृङ्गराड्रक्तचित्रकम् ॥
 तगरं शूरणं मुण्डीमलकापोतकोकिलम् ।
 सैन्धवं श्वेतवर्षाभू साम्बरं हिङ्गमाक्षिकम् ॥
 विष्णुक्रान्ता सोमवल्ली ब्रह्मन्त्री यक्षलोचनम् ।
 व्याघ्रपादी हंसपादी वृश्चिकाली कुरुगटकम् ॥
 स्वयम्भूकुसुमं कुञ्ची हस्तिशुण्डीन्द्रवारुणी ।
 बीजान्यहस्करस्यापि सर्वत्रैते नियामकाः ॥
 एताः समस्ता व्यस्ता वा देया ह्यष्टदशाधिकाः ।
 मारणे मूर्च्छने बन्धे रसस्यैतानि योजयेत् ॥

Gandhanakuli, kshirini, bandhyakarkati, brahmi,
 sharapunkha, kakajangha, maurashikha, (nilakantha,
 or moragphul), brahmadandi, akhuparni, punarnaba,
 kanchuki (khirisha), murba (suchamukhi), saindhava
 salt, utpala, chinchika, shatabari, astisanghara, bajra-
 kanda, gokshura, mandukaparni, patali, chitraka,
 grishmasundara, kakamachi, jalapippali, haridra,
 tilaparnika, swetarka, shigru, dhuttura, mrigadurba,
 haritaki, guduchi, mushali, sarapunkha, bhringaraja,
 ractachitraka, tagaram, shuranam, mundiri, kasta-

udumbara, karanja, kokilaksha, saindhava, swetapunar-
naba, sambara salt, hingu, madhu, aparajita, somalata,
langali, bata, byaghrapadi (bikankata), godhapadi,
brishchikali, jhinti, mashaparni krishnajira, hastishundi,
indrabaruni, and seeds of arka. All of them, or at
least 18 of them, are to be used, jointly or separately,
in the transformation, incineration, and entanglement
of mercury.

पञ्चमोऽध्यायः ।

(१०) अथ रसस्य रञ्जम् (एतदस्य सप्तदशः संस्कारः) ।

(तारकर्मणि अस्य न तथा प्रयोगो दृश्यते ।)

केवलं निर्मलं ताम्रं (१) वापितं दरदेन तु ।

कुरुते त्रिगुणं जीर्णं लाक्षारसनिभं रसम् ॥

गन्धकेन हतं नागं जारयेत् कमलोदरे (२) ।

एतस्य त्रिगुणे जीर्णो लाक्षाभो जायते रसः ॥

(एतत्तु नागसन्धानं न रसायणकर्मणि ।)

(17) *Ranjanam or Dyeing of mercury (i. e., the seventeenth mercurial operation).*

(It is not usual to have mercury dyed in operations leading to the transformation of base metals into silver.)

(1) Mercury, which has swallowed three times its weight of pure copper killed with hingula, assumes the complexion of lac. (2) Lead killed with sulphur is again to be exhausted by means of a crucible made of copper. Mercury which is exhausted with three times its weight of this substance becomes as red as lac.

This operation with lead is to be avoided in the preparations of mercury for medicinal purposes.

(१) वापितं पुष्टितं मिश्रितम्वा ।

(२) कमलोदरे ताम्रोदरे ।

किंवा यथोक्तसिद्धबीजोपरि त्रिगुणताम्रोत्तरेणान्यत् बीजं समजीर्णं रसं स्वतन्त्रेणैव रञ्जयति ।

Or, the substance which is produced by the commingling of one part of the dyeing substance mentioned above and three parts of copper, is competent to dye mercury which is exhausted by an equal quantity of this new dyeing substance.

कुनटीहतकरिणा रविणा वा ताप्यगन्धकहतेन दरदनिहतशिलया वा त्रिव्यूढं हेम तद्बीजं वलिना व्यूढं केवलमर्कमपि रञ्जयति । *

Gold mixed for three times (1) with lead killed with manas-sila, or (2) with copper killed with swarna makshika and sulphur, or (3) with manas sila killed with hingula, can dye only copper mixed with sulphur.

अथ रसस्य सारणा ।

सूते सतैलयन्त्रस्थे स्वर्णादिक्षेपणां हि यत् ।
वेधाधिक्रयकरं लोहे सारणा सा प्रकीर्त्तिता ॥

Sarana or dyeing by means of oil.

Sarana of mercury is a process by which gold and other things are thrown upon mercury contained in an apparatus full of some prescribed oil. This heightens the alchemical power of mercury.

* कुनटी मनःशिला । करिणा नागेन (सीसकेन) । रविणा ताम्रेण । ताप्यं माक्षिकम् । वलिना गन्धकेन । अर्कम् ताम्रम् ।

अथ सारणातैलम् ।

मञ्जिष्ठाकिंशुकञ्चैव खदिरं रक्तचन्दनम् ।
 करवीरं देवदारु सरलो रजनीद्वयम् ॥
 अन्यानि रक्तपुष्पाणि पिष्ट्वा लाक्षारसेन तु ।
 तैलं विपाचयेत्तेन कुर्याद् बीजादिरञ्जणम् ॥
 द्विगुणो रक्तपुष्पाणां रक्तपीतगणस्य च ।
 काथे चतुर्गुणं क्षीरं तैलमेकं प्रयत्नतः ॥
 ज्योतिष्मतीकरञ्जाख्यकटुतुम्बीसमुद्भवैः ।
 पाटलाकाकतुण्ड्याहमहाराष्ट्रीरसैः पृथक् ॥
 भेकशूकरमेषाहिमत्स्यकूर्म्मजलौकसाम् ।
 वसया चैकया युक्तं षोडशांशैः सुपेषितम् ॥
 भूलतामलमाक्षीकं द्वन्द्वमेलाख्यकौषधैः ।
 पाचितं गालितञ्चैव सारणातैलमुच्यते ॥

The dyeing oil.

An oil is to be prepared with manjistha, palasha, khadira, raktachandanam, karabira, devadaru, sarala, haridra, daruharidra, and other red flowers, all rubbed with lac juice. The oil, thus prepared, serves to dye mercury. In this case, two parts of the juice of red flowers, two parts of the juice of reddish yellow flowers, four parts of milk, and one part of oil are to be made use of. The oil will also have to be boiled with the juice of each of the following:—jatismati, karanja, katutumbi, patala, kakatundi, maharastri. It

will then have to be mixed with the tallow of each of the following animals, each one-sixteenth in weight of the oil,—frog, hog, ram, snake, fish, tortoise, and leach, all well rubbed. The oil will have then to be again prepared with the following:—soil raised by earth worm, honey, and two parts of ela. The oil, thus prepared, will have to be filtered. It is called Sarana Tailam.

अथ गन्धर्वतैलम् ।

ऊर्णाटङ्गणगिरिजतुमहिषीकर्णाक्षिमलेन्द्रगोप-
कर्कटकाः द्वन्द्वमेलाख्यकौषधानि ।

यथाप्राप्तैः श्वेतपुष्पैर्नानावृक्षसमुद्भवैः ।

रसं चतुर्गुणं योज्यं कङ्कनीतैलमध्यतः ॥

पचेत् तैलावशेषन्तु तस्मिंस्तैले निषेचयेत् ।

द्रावितं तारबीजन्तु ह्येकविंशतिवारकम् ॥

रञ्जितं जायते तत्तु रसराजस्य रञ्जनम् ।

कुटिले बलमत्यधिकं रागस्तीक्ष्णं च पन्नगे स्नेहः ।

रागस्नेहबलानि तु कमले नित्यं प्रवसन्ति ॥

Gandharva tailam.

An oil is to be prepared with the following ingredients:—ram's fur, tanganam, silajatu, the dirt collected in the eyes and ears of a she-buffalo, indragopa worm, karkataka (crab), two kinds of ela, the juice of as many white flowers as available, the quantity of this juice being four times in weight of the kanguni oil from which the oil is to be prepared.

Silver *beejam* becomes white-coloured, if smelted for twenty one times and immersed in this oil. Mercury, exhausted with this silver *beejam*, assumes the appearance of silver. It is to be borne in mind that the characteristic of kanta iron is strength, that of steel is the aptitude of being coloured, that of lead is smoothness, and that of copper is all these three combined.

अथ तारबीजम् ।

(१) कुटिलं विमला तीक्ष्णं समचूर्णं प्रकल्पयेत् ।

पुटितं पञ्चवारन्तु तारे बाह्यं शनैर्धमन् ॥

यावद्दशगुणं तत्तु तारबीजं भवेच्छुभम् ।

(२) सत्त्वं तारोद्भवं वङ्गं समं कृत्वा तु धामयेत् ॥

तच्चूर्णं वाहयेत्तारे गुणान्येव हि षोडश ।

प्रतिबीजमिदं श्रेष्ठं सूतकस्य निवन्धनम् ।

जारणात् सारणाच्चैव सहस्रांशेन विध्यति ॥

(३) वङ्गाभ्रं वाहयेत्तारे गुणानि द्वादशानि च ॥

एतद्वीजं समे चूर्णे शतवेधी भवेद्रसः ।

(४) नागाभ्रं वाहयेद्धे म्नि द्वादशानि गुणानि च ॥

प्रतिबीजमिदं श्रेष्ठं पारदस्य निवन्धनम् ॥

(५) मात्तिकेण हतं ताम्रं नागञ्च रञ्जयेन् मुहुः ।

तं नागं वाहयेद् बीजे द्विषोडशगुणानि च ।

बीजं त्विदं वरं श्रेष्ठं नागबीजं प्रकीर्तितम् ।

समचारितमात्रेण सहस्रांशेन विध्यति ॥

The tara bijam or seeds of silver.

(1) Kanta iron, bimala, and steel are to be taken in equal quantities and mixed together by means of being subjected to putapaka for five times. Ten parts of this compound and one part of silver are to be heated together until the whole thing turns into a seed of silver.

(2) Essence of silver and banga (tin) are to be taken in equal quantities, and burnt by putapaka. Sixteen parts of this compound and one part of silver are to be heated together. This compound, by means of being dyed and exhausted with mercury, becomes competent to transform into silver a base metal thousand times in weight of this.

(3) Banga (tin) and abhra (mica) are to be taken in equal quantities and mixed together. Twelve parts of this compound and one part of silver are to be heated together to form into a silver seed. Mercury, exhausted with this substance, is competent to transform into silver hundred times its weight of base metal.

(4) Twelve parts of lead and mica mixed together and one part of gold are to be heated together to be formed into a silver seed.

(5) Copper and lead, both killed with makshika, are to be mixed together. Thirty-two parts of this compound and one part of silver are to be heated together to form themselves into a silver seed. This is a very good silver seed and is called the Naga bijam. It transforms into silver thousands times its weight of base metal.

अथ सारणाधिधिः ।

अन्धमूषा तु कर्तव्या गोस्तनाकारसन्निभा ।
 सैव च्छिद्रान्विता मन्दा गम्भीरा सारणोचिता ॥
 अस्यामेव मूषायां तत्रैलमपगतकल्क
 विमलमापूर्य्यमस्मिन्नधिकमधस्ताद् द्रुतबीज
 प्रक्षेपसमकालमेव समावर्जनीयः सूत
 वरस्तदनुसद्यो मूषा समाच्छादनीया ।
 एतत्रैलाकपटखसदग्रन्थिवन्धेन अरुणासित
 बीजाभ्याममुना सारणकर्मणा मिश्रितश्चेत्
 सारितः । सम्यक् संयमितश्च विज्ञातव्यः ।
 प्रतिसारितस्तु द्विगुणबीजेन तद्वदनुसारितस्तु
 त्रिगुणेनात्र त्रिविधायामेव सारणाया
 मरुणासितकर्मणोः कामणार्थमीषदीप्त
 पद्मगरुडौ विश्वावर्षीयाविति ।

The process of sarana.

A blind crucible, smooth, deep, resembling the shape of a cow's teat, and having a hole at the upper part, is to be partly filled with the dyeing oil duly filtered. Into this oil is to be thrown mercury as soon as smelted *beejam* is thrown upon it (*i.e.* mercury). The crucible is then to be covered well. Mercury duly mixed with the *beejam* (of gold or of silver), and enclosed with a piece of cloth, saturated with the oil, gets dyed.

With double the quantity of the bijam the colour of the mercury is spread ; and with three times the quantity of the bijam the colour of the mercury is deepened. In these three different kinds of dyeing mercury, it is desirable for the purpose of transformation of base metals into gold, to have the tin and lead slightly smelted.

प्रकारान्तरेण रसज्ञानम् ।

कंकुष्ठं हरितालं च गन्धकं दरदं शिला ।
 माचिकं सैन्धवं तुत्यं नवसारं तथाभ्रकम् ॥
 सौवीरं गैरिकाकारं राजावत्तं विषत्रयम् ।
 प्रवालं यावकं पिङ्गं सिन्दूरं सरसाञ्जनम् ॥
 समुद्रफलं कर्पूरं पीतकाशीसवेतसम् ।
 स्वर्पूरं किंशुकं रक्तं तुरटीं * नूतनां नयेत् ॥
 कृत्वा सूक्ष्मं विघृष्याथ स्त्रीरक्तेन च भावयेत्
 दाडिमीकुसुमैर्भाव्यो जपायाः कुसुमैस्तथा ॥
 वन्धूककुसुमैर्गाढं हस्तिशुण्डीरसैरपि ।
 चाङ्गेरिकारसैः साद्धं मुसलीरसमर्दितः ॥
 हरिद्राभावनाः पञ्चत्रुटिकायास्तथा रसैः ।
 सुवर्षकुसुमानां च रसैर्दद्याच्च भावनाः ॥
 शृङ्गीविषस्य दातव्या भावना पञ्च पञ्च च ।
 दुग्धिकाया रसैः पञ्च कुङ्कुमस्य रसैरपि ॥

* तोरी तुबरी स्फटिकादि इत्येते तुरट्याः प्रतिशब्दाः ।

राजवृक्षस्य पुष्पाणां निम्बकानां द्रवैस्तथा ।
 एवं रागयुतः सूतः प्रोज्ज्वलो निश्चलस्तथा ॥
 सर्वकर्मसः श्रीमानभिस्थायो स्थिरो भवेत् ।
 हेमाभ्रसत्वप्रभृतीन् प्रसते निष्प्रयासतः ॥
 ततो यामद्वयं कुर्यात् कर्मणोऽन्तेऽप्य मर्दनम् ।
 अवश्यं वध्यते तेन कर्मणा पारदः परः ॥
 यद्यदारभेते कर्म तत्तदेव करस्थितम् ।
 भविष्यति न सन्देहः कंकुष्ठादिग णादतः ॥
 अनेन सदृशं नान्यद्रसाधीनकरं परम् ।
 भूतक्षे विद्यते पुरा शम्भुदेवेन भाषितम् ॥
 असौ रक्तगणः कार्थ्यो रसकार्थ्यस्य सिद्धये ।
 विनाऽनेन न जायेत जारणाकर्म सूतके ॥
 अवश्यं पीतवर्णः स्यात्तथा वह्नौ स्थिरो भवेत् ।
 अवश्यं जायते रक्तोऽप्यवश्यं प्रासखोलुपः ॥
 अनेन गणराजेन सकर्षं कर्म कारयेत् ।
 बुद्धोधो जायतेऽनेन प्रबोधो मनसस्तथा ॥

Another process of dyeing mercury

Kankustha, haritala, gandhaka, hingula, manassila,
 makshika, saindhava, tuttham, nabasaram, abhraka,
 saubiranjana, red ochre-like rajabarta, the three
 different kinds of poison, (viz., shringi, batsanabha,
 and kalakuta), pravala (coral), lac, haridra, sinduram,
 rasanjanam, samudraphalam, karptiram, yellow kasisa,

betasam, kharpara, kinsuka, kusumbha, new tubari.— all these are to be finely powdered, mixed together, and rubbed with mercury, which is to be subjected to bhavana with the menstrual discharge of a woman. The mercury is then to be subjected to bhavana with the following :—pomegranate flowers, japa flower, bandhuka flower, hastishandi, changeri, musali, haridra juice for five times, tubari for five times, juice of dbatura flower, shringi poison for five times, dugdhika for five times, kumkuma juice, aragbadha flower, and lemon juice.

Thus dyed, mercury becomes perfectly devoid of motion. It then may be used in all sorts of things. It is then capable of standing fire. Mercury is to be dyed in this way. It should not be exhausted without being dyed. Mercury thus dyed, becomes red in colour, and is capable of swallowing metals etc.

पूर्वोक्तरसेन बीजप्रासः ।

पूर्वप्रोक्तं रसेन्द्रं तं लोहखल्वे विनिचिपेत् ।

चतुःषष्ट्यंशभागेन बीजप्रासं प्रदापयेत् ॥

त्रिंशांशं लवणं दत्त्वा ह्यम्लेन सह मर्दयेत् ।

सोऽयं खल्वे चरेद्दुप्रासं द्रुतिगर्भे प्रजायते ॥

सोष्णेन चारनालेन चालयित्वाऽथ सूतकम् ॥

स्थापयेत् पत्रपुटके चाष्टांशविडसंयुते ॥

तत्पुटं पोटलीं बद्ध्वा दोलायन्त्रेण धारयेत् ॥

अर्द्धपूर्णं घटं कृत्वा मूत्राम्लभूतिवारिणा ।

पुनः सूत्रे निबध्याथ यन्त्रद्वारं पिधापयेत् ॥

त्रिदिने जायते ग्रासः सूतके नात्र संशयः ।
 चालनात् परमुष्णेन ग्रासो देयः पुनः पुनः ।
 मर्दनं स्वेदनं कार्यं निर्मलो जायते रसः ॥

*Swallowing of metals etc. by the mercury
 referred to above.*

The mercury, dyed in the foregoing manner, is to be rubbed in an iron mortar with one sixty-fourth its weight of gold (or silver), one thirtieth its weight of salt, and a sufficient quantity of sour vegetable juice. This causes the internal liquefaction of mercury which swallows the metal. The mercury is then to be washed with warm aranala, and to be confined within a patra-putam with one eighth its quantity of bida. This putam is to be rapped up in a piece of cloth and boiled by means of a Dola Jantram, half of which is to be filled with urine, sour juice, and ashes dissolved in water. After keeping the bundle suspended, as usual, by means of a thread, the mouth of the vessel is to be closed. The morsel is swallowed in three days by the mercury, which is to be washed again with warm aranala. The mercury is to swallow such morsels, again and again. Thus rubbed and boiled, the mercury becomes very clear.

पूर्वोक्तस्य सारणम् ।

गृहधूमेष्टिकाचूर्णदधिनिर्गुणडीकाजिकैः ।
 ग्रासान्ते स्वेदयेत् सूतं पातनं च प्रदापयेत् ॥

चतुःषष्ट्यंशभागेन प्रासयुग्मं प्रदीयते ।
 चत्वारिंशद् विभागेन दद्याद् प्रासचतुष्टयः ॥
 त्रिंशांशकेन षड् प्रासा अष्टौ विंशतिकेन च ।
 एते चतुर्विधा प्रासा जीर्यन्ते स्वेदयोगतः ॥
 चतुर्गुणेन वस्त्रेण पीडितो यदि निःसरेत् ।
 प्रासं जीर्णं विजानीयादजीर्णं तु विवर्जयेत् ॥
 अस्य पातं ततः कृत्वा पुनर्प्रासं प्रदापयेत् ।
 दश प्रासाः प्रदातव्या जलकूर्मे रसस्य च ॥
 षोडशांशेन बीजं च विडं चाष्टांशकं भवेत् ।
 द्वादश द्वादशांशेन स्थलकूर्मे प्रदापयेत् ॥
 अष्टांशैर्भुवनप्रासा दातव्या कन्दमध्येतः ।
 कन्दमध्ये विडं दत्त्वा विडमध्ये तु
 पारदम् ॥

द्वारं निरुध्य यत्नेन वेष्टयेद् वाससा मृदा ।
 भूधरे च पुटं दत्त्वा त्रिदिनैर्जीर्यते रसः ॥
 दातव्या षोडशप्रासाः पादांशेन रसस्य ते ।
 कृत्वा वज्रमयीं मूषां विडं गर्भे प्रदापयेत् ॥
 तत्क्षणाद् असते सूतः पुटेन करिषामिदम् ।
 जलकूर्मे दिनत्रीणि स्थलकूर्मे दिनत्रयम् ॥
 कन्दमध्ये दिनत्रीणि मूषायां च दिनत्रयम् ।
 एवं चाष्टगुणेनायं ततः सिध्यति पारदः ॥

दिव्यौषधिसमायुक्तं सूतबन्धं च कारयेत् ।
 बद्धश्च सूतराजेन्द्रो कामदायी भवेत् स्फुटम् ॥
 समेन शतवेधी स्याद् द्विगुणेन सहस्रकम् ।
 चतुर्गुणेन स्रक्षं तु कोटीमष्टगुणेन तु ॥
 बीजं कलागुणं जीणं द्वात्रिंशकगुणै स्तथा ।
 वेधयेत् सर्वलोहानि स्पर्शमात्रेण निश्चितम् ॥
 शंकरेण विधिः प्रोक्तो बीजे त्रिगुणवाहिते ।
 तावत्संख्यं भवेद् व्योम यावद् बीजं च
 जारयेत् ॥

गन्धकोऽत्यधिको जाय्यः शतसाहस्रसंख्यया ।
 रागाधिक्यं करोत्येष सर्वजारणकर्मणि ॥
 रक्ततैलेन संयुक्तं दीर्घमूषे रसं क्षिपेत् ।
 मूषे तस्ते करीषाम्नावित्थं सरति सूतकः ॥
 एकं द्विरथवा त्रीणि सारितव्यो रसोत्तमः ॥

Saranam (or dyeing by means of an oil) of the mercury referred to above.

The mercury, dyed as above, is to be boiled with soot, brick powder, curd, nirgundi, and kanji, and then to be subjected to sublimation. It is then to be made to swallow two morsels (silver or gold), each $\frac{1}{4}$ th in weight of the mercury. Four more morsels, each one fortieth in weight of the mercury; six more morsels, each one thirtieth in weight; and eight more morsels, one twentieth in weight each, are

also to be made to be swallowed, by means of heating in the prescribed manner. If the mercury is then capable of passing through a piece of cloth, four folded, the morsels are to be considered swallowed; otherwise, the mercury is not to be made use of for the purpose in view. If it is then again to be subjected to sublimation, and again made to swallow gold or silver, ten morsels are then to be given by means of a Jala-kachchapa Jantram, each one sixteenth in weight of the mercury, combined with bida, one eighth in weight of the same. Twelve morsels, each one twelfth in weight of the mercury, are then to be made to be swallowed by means of a Sthala kachchapa Jantram. Fourteen morsels, each one eighth in weight, are next to be given to the mercury by means of being confined within the tuber of a suitable plant (such as shuranam, bidari, karkoti etc.). The tuber, which in this case, is to confine within itself the mercury, surrounded on all sides with *bida*, is to be closed carefully, and coated all over with a plaster made of rag, soaked with mud, and dried. It is then to be subjected to heat by means of a Bhudhara Jantram, for three days, leading to the exhaustion of the mercury. Sixteen morsels are next to be given, each one fourth in quantity, by means of a bajra musha (hard crucible), containing bida, and subjected to heat by putam with fire made of cowdung cakes. The mercury is thus to be exhausted with eight times its weight of gold or silver, by means of a Jala Kachchapa Jantram, Sthala Kachchapa Jantram, tuber, and hard crucible, for three days each. The mercury thus prepared, is

to be solidified with divya (divine) drugs, and becomes the giver of wished for objects.

If exhausted with only an equal quantity of bijam (gold or silver), it becomes shata-bedhi, (*i.e.* capable of transforming into gold or silver, as the case may be, a hundred times its weight of base metals). If exhausted with double its quantity of bijam, it becomes Sahasrabedhi (capable of transforming into gold a thousand times its weight of base metals). If exhausted with four times its weight of bijam, it becomes Laksha bedhi (*i.e.*, capable of transforming into gold or silver one hundred thousand times its weight of base metals). If exhausted with eight times its weight of gold or silver, it becomes koti bedhi (or capable of transforming ten millions its weight of base metals). If exhausted with sixteen or thirty two-times its weight of metals, the mercury becomes Sparsamani (Philosopher's stone, or something capable of transforming into gold or silver, any metal by mere touch). This process was taught by Shiva himself.

When three times its weight of bijam is swallowed by the mercury, an equal quantity of mica is also to be exhausted. Sulphur is also to be exhausted by a hundred or thousand times in weight of the mercury. All these procedures are to be observed for increasing the power of transformation of base metals by mercury. The mercury is then to be put into a long crucible containing racta-tailam (*i.e.* the dyeing oil). The crucible is then to be heated by means of cowdung cakes, causing the dyeing of the mercury.

The mercury is thus to be dyed twice or thrice by means of the red oil.

पूर्वाक्तिसिद्धरसस्य संक्रामणम् ।

मधूच्छिष्टकमादिकवसाशोणितटंकरा

भूनागमृतनागकल्मेहै रसस्य क्रामनम् ।

वेधितं तेन सूतेन दिव्यं भवति काञ्चनम् ॥

वसया पित्तबीजेन कोटीगुणं च वेधयेत् ।

बाह्यद्रुतिप्रयोगेण क्षणाद् वेधमवाप्नुयात् ।

Sankramanam (or imparting upon the mercury, dyed as above, the power of transformation of base metals into gold).

Wax, honey, tallow, blood, takanam, earthworm, incinerated lead, and oil—these are things which impart upon the mercury the power of transformation of base metal into gold. A base metal may be transformed into a fine gold by the mercury described above, if subjected to bhavana with the things noted above.

If it is intended to transform base metals, one crore times in weight of the mercury, to gold, it is necessary to subject the mercury to bhavana with tallow and the bile bag of an animal. In such a case, the adoption of the process of external liquefaction makes the transformation instantaneous.

(१८) अथ रसस्य वेधनम् (एतदस्याष्टादशः संस्कारः) ।
 सारितो जारितश्चैव पुनः सारितजारितः ।
 सप्तशृङ्खलिकायोगात् कोटिवेधी भवेद्रसः ॥

(18) *Bedhanam or transformation of base metals into gold by mercury (i. e., the eighteenth mercurial operation).*

Mercury is to be dyed and exhausted, and again dyed and exhausted. It becomes competent to turn into gold, crore times its weight of base metals, by the performance of the operation of dyeing and exhaustion, for seven times.

वेधनार्थं जारणे घात्वादीनां प्रयोजनम् ।

बलमास्तेऽत्रकसत्त्वे जारणरागा प्रतिष्ठितास्तीक्ष्णे ।
 बद्धश्च रसो लौहैः क्रामणमथनागवद्गतम् ॥
 क्रामति तीक्ष्णेन रसः तीक्ष्णेन च जीर्यते घ्रासः ।
 हेम्नो थोनिस्तीक्ष्णं रागान् गृह्णाति तीक्ष्णेन ॥
 तदपि च दरदेन हतं कृत्वा वा मात्त्रिकेण रविसहितम् ।
 वासित*मपि वासनया घनवच्च भार्यश्च जार्यश्च ॥
 सर्वैरेभिलौ† हैर्मात्त्रिकमृदितैर्द्रु तैस्तथागर्भे ।
 विड्ययोगेन च जीर्णो रसराजो बन्धमुपयाति ॥
 निर्वीजं समजीर्णं पादोनं षोडशंशे तु । †
 अर्द्धेन पादकनकं पादनैकेन तुल्यकनककश्च ॥

* वासितं संस्कृतम् । वासनया संस्कारेण पुटेन इति भावः ।

† विहितश्लोकस्य व्याख्या—निर्वीजं स्वर्णं रौप्यादिव्यतीतं सम-
 जीर्णं समपरिमाणेन पूर्वोक्तेन धातुसमष्टिना सह जीर्णं रसराजे

Importance of metals in Bedhanam or Alchemy.

The essence of mica possesses strength, steel possesses the power of exhaustion and colour. Mercury, therefore, if bound with steel, causes the alchemical transformation of lead and tin. Mercury transforms base metals into gold by the help of steel. It is steel which makes mercury swallow other metals. Steel produces gold. Colour is imparted by steel. But steel, like mica, is to be exhausted and incinerated, by being killed with hingula or with swarna makshika, combined with copper. All these metals, previously rubbed with makshika, and thrown upon mercury, causes its internal liquefaction. This mercury, if now rubbed with *bida*, becomes exhausted, and allows itself to be bound (i.e., solidified).

Mercury, exhausted with an equal quantity of the amalgam of the metals referred to above, but without gold or silver, becomes competent to transform an equal quantity of base metals into gold. It can transform one fourth its quantity of base metals, if it is exhausted in the above way with half the quantity of the amalgam. If it is exhausted with one fourth its quantity of the amalgam, (without any bijam i.e., gold or silver) it can make base metals appear like gold, but cannot transform them into real gold.

इति शेषः षोडश्यांशे लोहे पादोत्तं त्रिपादं कनकं जायते । तथा अर्धेन धातुसमष्टिना सह जीर्णं पादमात्रं कणकं जायते । तथा पादोत्तं पादमात्रेण धातुसमष्टिना जीर्णं रसे तुल्यकनकं कनकतुल्यो मिश्र धातुविशेषः न तु प्रकृतकनकं जायते ।

तथान्यविधम् ।

व्योम्नो दशगुणं सत्त्वं सत्त्वाद् दशगुणा द्रुतिः ।
 नागे स्नेहो बलं व्योम्नि रागस्तीक्ष्णात् परो न हि ॥
 बलं रागस्तथा स्नेह स्तिष्ठन्ति कमले सदा ।
 लोहेन भावितस्त्यजेत् मलं हि जारितो रसः ।
 बीजत्वं बीजराजेन भवेत् सम्यङ् न संशयः ॥
 वज्रं लक्षद्वयो रागो माणिक्ये दशलक्षकम् ।
 नीले द्वादशलक्षञ्च द्व्यष्टयौ मरकते स्मृतम् ॥
 वैदूर्ये पुष्परागे च लक्षमेकमुदाहृतम् ।
 रसस्तस्य प्रभावेण दिव्यदेहमवाप्नुयात् ॥

Another version.

Essence of mica is ten times as powerful as mica incinerated, whereas liquefied mica is ten times as powerful as its essence. Lead (exhausted in mercury) gives rise to smoothness, mica (similarly exhausted) gives rise to strength, and steel gives rise to colour, but copper alone possesses these three characteristics of strength, colour, and smoothness. Mercury, duly exhausted, gives up its want of colour, if subjected to sancramanam with iron. Mercury turns to a seed of gold or silver, if subjected to sancramanam with semen. In diamond exists two lacs of units of colour, in manikya ten lacs, in nilam twelve lacs, in emerald sixteen lacs, in vaidurya and pusparaga one lac units each. Mercury assumes a divine appearance by the influence of the above.

अत्यम्लितमुद्गवर्तिततारारिष्टादिपत्रमतिशुद्धम् ।
 आलिप्य रसेन ततः क्रमेण लिसं पुटेषु विश्रातम् ॥
 अद्धेन मिश्रयित्वा हेम्ना श्रेष्ठेन तद्वलं पुटितम् ।
 क्षितिखगपदुरक्तमृदा वर्णपुटोऽयं ततो देयः ॥

Leaves of silver, copper etc. are to be purified very well, and rubbed well with a strongly sour vegetable solution. They are then to be coated with mercury, duly exhausted with the *bijam*, and then heated by *samputam*. The leaves are next to be mixed with half their quantity of absolutely pure gold and heated by *putapaka*. For the enhancement of the colour, they are then to be subjected to *putapaka* with the soil raised by earth worms, salt, and red earth.

रज्जुभिर्भेकरङ्गाभ्रैः स्तम्भयोः सारलोहयोः । ●

वध्यते रसमातङ्गो युक्त्या श्रीगुरुदत्तया ॥

शिलाचतुष्कं गन्धेशो काचकूप्यां सुवर्णकृत् ।

† कीलालायःकृतो योगः खटिकालवणाधिकः ॥

In accordance with the instructions given by a preceptor, the elephant of mercury can be tied, in pillars made of incinerated diamond and iron, by ropes made of mica, tin, and gold.

Four parts of *manas-sila* and one part of sulphur, if put in a glass bottle, with its mouth closed tightly with a stopper made of *haritala*, iron, *khatika* (chalk),

* सारः वज्रक्षारम् (हीरकमस्म) । अन्नम्-स्वर्णमिति मेदिनी ।

† कीलः शङ्कुः आलम् हरितालम् अयः लोहम् ।

and salt, give rise to a substance which (if properly utilised) can produce gold.

मण्डुकपारदशिलावलयः समानाः
संमर्दिताः चितिविलेशयकान्त्रविद्धाः (१) ।
यन्त्रोत्तमेन गुरुभिः प्रतिपादितेन
स्वल्पैर्दिनैरिह पतन्ति (२) न विस्मयध्वम् ॥
लौहं गन्धं टङ्गणं भ्रामयित्वा
तेनोन्मिश्रं भेकमावर्त्तयेत्तत् । (३)
तालं (४) कृत्वा ताप्यवद्गान्तराले
रूप्यस्याद्यं तच्च सिद्धोक्तबीजम् ॥

Black mica, mercury, manas-sila, and sulphur are to be taken in equal quantities, and rubbed with the entrails of animals living in holes made into the earth. No wonder, if they turn into gold, if heated for a few days, by means of apparatus devised by preceptors.

Iron, sulphur, borax, mica, swarna-makshika and tin are to be mixed together and smelted in a crucible, the compound thus produced being a primary seed of silver.

- (१) विद्धः ताडितः मर्दितः ।
(२) स्वर्णरूपेणेति शेषः ।
(३) आवर्त्तयेद् बहुयोगेन मूषायां द्रावयेत् ।
(४) तालं गोलाकारम् ।

वलिदूर्दूरपूतिलौहताप्यम्
कुरुते हिङ्गलखण्डपचखण्डं

ध्रुवमक्षीणधिया मतेन लक्ष्म्याः ॥७

। शिहेलिहिरण्यस्यापि बाह्यद्रुतयो वक्ष्यन्ते ।

एतास्तु केवलमारोटमेव † मिलिता हि बध्नन्ति ।
फलमस्य कल्पप्रमितमायुः । किं पूर्वोक्तप्रासक्रम-
जारिता पूर्वोक्तफलप्रदा भवन्ति । उच्यते च सम-
जीर्णश्चायं शतवेधी द्विगुणजीर्णः सहस्रवेधी । एवं
लक्षायुतकोटीवेधी अनुसर्त्तव्यः । चतुःषष्टिगुण
जीर्णस्तु ध्रुमस्पर्शवलोकशब्दतोऽपि विध्यति ।

Sulphur, mica, munda iron, and swarna-makshika, combined, can cut off the wings of cinnabar (which, even if heated, does not sublimate).

Silver, copper, and gold, combined, can cause the external liquefaction of purified mercury. Taking of this mercury increases longevity. Moreover, mercury, exhausted with an equal quantity of the above metals combined, becomes shatabedhi *i.e.*, competent to transform hundred times its weight of base metals. Mercury, exhausted with double its quantity of the above metals, becomes sahasrabedhi *i.e.*, competent to transform thousand times its weight of base metals. Mercury may thus be made to transform millions, and

* लक्ष्म्याः लक्ष्मीधरस्य सिद्धाचार्यस्य ।

† सुसोधितो रसः यद् अरोट इति कथ्यते ।

billion times its weight of base metals. Mercury, exhausted with sixty four times its weight of the above-mentioned metals, is competent to transform base metals into gold by its smoke (see definition of dhumabedhi), touch, * sight, and sound.

शिलया निहतो नागो वङ्गं वा तालकेन शुद्धेन ।
क्रमशः पीते शुक्ले क्रामणमेतत् समुद्दिष्टम् ॥

Mercury, exhausted with lead, previously killed with manassila is competent to turn base metals into gold, whereas mercury, exhausted with tin, previously killed with purified haritala, is competent to turn base metals into silver.

दरदं मादिकं गन्धं राजावर्त्तं प्रवालकम् ।
शिलातुत्थञ्च कष्कुष्ठं समचूर्णं प्रकल्पयेत् ॥
वर्गाभ्यां पीतरक्ताभ्यां † कङ्कनीतैलकैः सह ।
भावयेद् दिवसान् पञ्च सूर्यतापे पुनः पुनः ॥
जारितं सूतखोटञ्च ‡ कल्केनानेन संयुतम् ।
वालुकाहरिडमध्यस्थं शरावपुटमध्यगम् ॥
त्रिदिनं पाचयेच्चुल्यां कल्कं देयं पुनः पुनः ।
रञ्जितो जायते सूतः शतवेधी न संशयः ॥

* This refers to what was popularly called the Sparshamani or Philosopher's stone.

† अत्रे परिभाषा द्रष्टव्या ।

‡ पूर्वोक्तया विद्वद्व्या सूतोऽत्र जार्यः ।

Hingula, swarna-makshika, gandhaka, prabala, manas-sila, tutthaka, kankustha— all powdered and taken in equal quantities, are to be rubbed together and subjected to bhabana with the yellow and the red bargas (see chapter on commentary), and with kanguni oil for five times. Mercury, combined with gold and other metals, and duly exhausted, * is to be mixed with the powder referred to above and confined within the samputam of two basins, tightly closed with mud etc. and dried. The samputam is then to be heated for three consecutive days by means of a Baluka Jantram, fresh powders being put inside the samputam, from time to time. Mercury, thus prepared, becomes tinged, and serves to transform into gold hundred times its weight of base metals.

लौहं गन्धं टङ्गणं ध्मातमेतत्

तुल्यं चूर्णं भानुभेकाहिरङ्गैः ।

सूतं गन्धं सर्वसाम्येन कूप्या

मीषत् साध्यं चित्तं नो विस्मयध्वम् ॥

Iron, sulphur, and borax, heated together ; powdered copper, mica, lead, and tin, equal in quantity to the three things mentioned above ; mercury and sulphur, equal in quantity to all the materials mentioned above—all of these are to be put into a glass bottle and heated mildly for some time. Do

* Mercury exhausted with what is called *bidabati* should be used in this case.

not let your mind lose itself in wonder at the sight of the product (*i.e.*, gold).

रसदरदताप्यगन्धकमनःशिलाभिः क्रमेण

वृद्धाभिः ।

पुटमृतशुल्वं तारे त्रिव्यूढं हेमकृष्टिरियं ॥

Silver, mixed with three times its weight of copper, killed by being subjected to putam with an equal quantity of the following, combined in the proportion of 1, 2, 3, 4, and 5 gives rise to what is called hemakristi (transformer into gold) :—rasa (mercury), warna-makshika, gandhaka, and manas-sila.

अष्टानवतिभागञ्च रूप्यमेकञ्च हाटकम् ।

सूतकेन च वेधः स्यात् शतांशवेधो हि स्मृतः ॥

चन्द्रस्यैकोनपञ्चाशत् तथा शुद्धस्य भास्वतः ।

अहिरेकः * शम्भुरेकः शतांशवेधो हि स्मृतः ॥

द्वावेव रजतयोनि ताम्रयोनित्वेनोषचर्य्यते ।

एवं सहस्रवेधादयो जारणबीजवशादनुसर्त्तव्याः ॥

Ninety eight parts of silver, one part of gold, and a sufficient quantity of mercury give rise to a compound which serves to transform hundred times its weight of base metal into silver. Forty nine parts of silver, an equal quantity of pure copper, one part of lead, and one part of mercury produce a substance

* अहिरेकः इति पाठान्तरम् । अहिःसीसकः ।

which can transform hundred times its weight of lead into copper. The potency of the above-mentioned metals can be increased ten times or more, according to the quantity of the mica, gold etc. with which the mercury used in the compound may be exhausted.

चत्वारः प्रतिवापाः सह लाक्ष्या मत्स्यपित्त-
भावितया ।

तारे वा शुल्बे वा तारारिष्टेऽथवा कृष्टौ * ॥
तदनुक्रमेण मृदितः सिक्थकपरिवेष्टितो देयः ।
अतिविद्रुते तस्मिन् वेधोऽसौ दण्डवेधेन ।
तदनुसिद्धतैलेनाप्लाव्य भस्मावच्छादनपूर्वक-
मवतार्यं स्वाङ्गशैत्यपर्यन्तमपेक्षितव्यमिति ॥

The four kinds of substances meant to be thrown upon base metals may be rubbed with lac, previously subjected to bhabana with the bile of fish, and with silver, copper, silver solution or Kristi * (as the case may be). The amalgam is then to be covered with the coarse remains of the ingredients mixed together and smelted. This compound causes the transformation of base metals into gold, silver, or copper (as the case may be), by mere contact. The transformed metal is to be anointed with the dyeing oil referred to above, then covered with ashes, got

* परिमाणा द्रष्टव्या ।

* See Chapter on Definitions.

down from the oven, and cooled by the radiation of the heat.

समांशगन्धजीर्णेन सूतेन दुःखतारणः । ●
 तारपत्रं प्रलेप्याथ बद्धौ तन्निचिपेत् क्षणम् ॥
 तत्पत्रं जायते पीतं हरिद्रा जलसन्निभम् ।
 अन्नसत्त्वकृतं पत्रं मार्यते माचिकेण च ॥
 तच्चूर्णं प्रस्यते सूते बन्धीकरणहेतवे ।
 तथा नागं प्रकारेण तथा हेमापि जारयेत् ॥
 तथा लौहं प्रकारेण समसूतं यथाविधिः ।
 मारितं सकलं रक्तं कोमलं कृतमुत्तमम् ॥
 इत्थं जीर्णेन सूतेन तारपत्रं विलेपयेत् ।
 तत्पत्रं जायते शीघ्रं काञ्चनं दुःखनाशनम् ॥

Silver leaf, painted with mercury which has consumed an equal quantity of sulphur, and heated, assumes a yellow appearance immediately.

Leaf, made of essence of mica, and killed with makshika, is to be caused to be swallowed by mercury which becomes thus solidified. Similary, lead, gold, and iron, each equal in quantity to the mercury and incinerated very fine, are to be duly made to be

* The word दुःखतारणः means one who puts an end to human misery by transformation of base metals into gold. The word Doctor appears to be a contraction of Dukhtar or Dukhtaran.

swallowed by the mercury. Paint a silver leaf with this mercury, which is to transform the leaf into gold,

विद्धं रसेन यद् द्रव्यं पत्रैकं स्थापयेद् भुवि ।
तत् आनीय नगरे विक्रीणोत विचक्षणः ॥

Base metals transformed into gold by mercury should be kept buried in the earth for a fortnight, before they are taken out for sale in the market.

वेधो बहुविधो ज्ञेयो लेपो क्षेपश्च कुन्तकः ।

धूमाख्यः शब्दसंज्ञकः स्पर्शाख्यो दुःखतारकाः ॥

Transformation of metals are of various kinds, viz, (1) lepa, (2) kshepa, (3) kunta, (4) dhuma, (5) shabda, and (6) sparsha. All of these put an end to human miseries.

लेपेन कुरुते लौहं स्वर्णं वा रजतं तथा ।

क्षेपवेधः स विज्ञेयः पुटमत्र च सौकरम् ॥

प्रक्षेपणं द्रुते लोहे वेधः स्यात् क्षेपसंज्ञितः ।

सन्दंशधृतसूतेन द्रुतद्रव्याहृतिश्च या ।

सुवर्णात्वादिकरणं कुन्तवेधः स उच्यते ॥

वह्नौ धूमायमानेऽन्तः प्रक्षिप्तसधूमतः ।

स्वर्णाद्यापादनं लोहे धूमवेधः स ईरितः

स्वस्थितरसेनाख्यलोहस्य धमनात् खलु ।

स्वर्णरूप्यत्वजननं शब्दवेधः स कीर्तितः ॥

कलागुणेन बीजेन जीर्णो बद्धो रसेश्वरः ।

स्पर्शेन कुरुते स्वर्णं स्पर्शवेध इति स्मृतः ॥

Lepabedha—is an act of bedhanam or transformation of a base metal into gold or silver by subjecting the base metal to putam of an ordinary nature, after painting the surfaces of the metal with mercury, especially prepared. *Kshepabedha*—is an act of transformation of a base metal into gold or silver by the throwing in of mercury, especially prepared, when the metal is in a state of liquefaction. *Kunta-bedha*—is an act of transformation of a base metal into gold or silver, an act in which a bit of mercury, especially prepared, is held within the grip of a forcep and put upon the base metal when smelted. *Dhuma-bedha*—is an act of bedhanam in which mercury, especially prepared, if thrown upon a base metal, put upon fire, emits a smoke and causes the instantaneous transformation of the base metal into gold or silver. *Shabda bedha*—is an act of bedhanam in which the transformation takes place by means of heating a small piece of base metal by breath, accompanied with a hissing sound, emitted through mouth containing mercury, especially prepared. *Sparsha bedha*—is an act of transformation of base metals into gold by the mere touch of a mercury, already exhausted with at least sixteen times its weight of beejam (metals, gems, etc.), and brought to a state of consolidation. This mercury is popularly known to be the Sparsha-mani (Philosopher's stone)

षष्ठोऽध्यायः ।

अथ यन्त्राणि ।

स्वेदादिकर्म निर्मातुं रसविद्भिः प्रयत्नतः ।
यन्त्रयते पारदो यस्मात् तद्वयन्त्रमिति कथ्यते ॥

Apparata.

A Jantram (or apparatus) is so named, because it is made use of by the Chemists in controlling mercury by way of boiling etc.

दोला यन्त्रम् ।

द्रवद्रव्येण भाण्डस्य पूरितार्द्धोदरस्य च ।
मुखस्योभयतः द्वारद्वयं कृत्वा प्रयत्नतः ॥
तयोस्तु निक्षिपेद् दण्डं तन्मध्ये स्वेद्यपोटुलीम् ।
प्रलम्ब्य सूत्रयोगेन स्वेदयेच्च यथाविधिः ।
दोलायन्त्रमिदं ख्यातं मुनिभिः सूतवेदिभिः ॥

Dola Jantram.

Two holes are to be made, opposite each other, at the edge of a vessel, half filled with some liquid. This is provided with a rod, passing through the two holes across the mouth. A bundle, containing the material or materials to be boiled, is to be kept suspended into the liquid, by means of a thread tied at the middle of the rod, the vessel being placed upon fire and heated, as required.

स्वेदनी यन्त्रम् (कन्दुकयन्त्रम्) ।

साम्बुस्थालीमुखावद्धे बद्धे पाक्यं निवेशयेत् ।
पिधाय पच्यते यत्र कन्दुकयन्त्रमुच्यते ।
स्वेदनीयन्त्रमित्यन्ये प्राहुरेतन् मनीषिणः ॥

Swedani Jantram.

Things, meant to be boiled, are to be put upon a piece of cloth, with which is to be closed the mouth of an earthen vessel, filled with water. An earthen basin is to be placed upon the mouth of the vessel, so as to cover the materials completely, and heat is then applied underneath. The apparatus is called the swedani Jantram.

पातनायन्त्रम् (विद्याधरयन्त्रम्) । *

अष्टाङ्गलपरीणाहमानाहेन दशाङ्गलम् ।
चतुरङ्गलकोत्सेधं तोयाधारं गलादधः ॥
अधोभागे मूलं तस्य भाण्डस्योपरिवर्त्तिनः ।
षोडशाङ्गलविस्तीर्णपृष्ठस्यास्ये प्रवेशयेत् ॥
ऊर्ध्वं स्थाल्यां जलं क्षिप्तं चाधोभाण्डे रसं न्यसेत् ।
पार्श्वयोर्महिषीक्षीरचूर्णमण्डूरफाणितैः ॥
क्षिप्तं विशोषयेत् सन्धिं चुह्वधामारोपयेत्ततः ।
अधस्ताज् ज्वालयेदग्निं यावत् प्रहरपञ्चकम् ॥
उष्णं जलं मुहुस्त्वक्त्वा शीतं वारि समानयेत् ।

* ऊर्ध्वपातनायन्त्रमपि कथ्यते पतत् ।

स्वाङ्गशीतं ततो यत्नाद् गृह्णीयाद् रसमुत्तमम् ।
विद्याधराभिधञ्चैव पातनायन्त्रमीरितम् ॥

Patana Jantram (Vidyadhara Jantram).

A vessel with a diameter of eight angulis at the top and ten angulis at the middle, and a height of four angulis from the bottom to the neck, is to be placed upon the mouth of another vessel having a diameter of 16 angulis. The upper vessel is to contain water and the lower vessel is to contain mercury etc, the joint being cemented with a plaster made of buffalo's milk, powdered and oxidised iron, and treacle, and dried. The apparatus is then to be placed upon fire, and heated for fifteen hours continuously. The mercury, deposited on the convex side of the upper vessel, is to be collected very carefully, after the apparatus gets cooled of itself on the oven.

अधःपातन यन्त्रम् ।

अस्योद्धर्भाजने लिप्तं स्थापितस्य जले सुधीः ।
दीप्तैर्वनोत्पलैः कुर्यादधःपातं प्रयत्नतः ॥

Adhak patana Jantram,

It consists of two earthen vessels. The inner surface of the upper one is to be painted with mercury and the lower one is to contain water. The upper one is to be placed, upside down, upon the lower one, and the joint closely cemented, A fire made of cow-dung balls, found dried in the pasturage, is to be

made upon the upper vessel. This will cause the downward sublimation of the mercury.

तिर्य्यक्पातन यन्त्रम् ।

क्षिपेद् रसं घटे दीर्घे नताधोनालसंयुते ।
 इतरस्मिन् घटे तोयं प्रक्षिपेत् स्वादुशीतलम् ॥
 तन्नालं निक्षिपेज् जलकुम्भकुक्ष्यन्तरे खलु ।
 तत्र रुद्ध्वा मृदा सम्यग् वदने घटयोरधः ॥
 अधस्ताद् रसकुम्भस्य ज्वालयेत् तीव्रपावकम् ।
 तिर्य्यक्पातनमेतद्धि वार्त्तिकैरभिधीयते ॥

Tirjak patana Yantram.

Mercury is to be kept in a long vessel, provided with a bent tube, the lower end of which will have to be projected into the body of another vessel containing water. The mouths of these two vessels are to be closed with mud etc. and the first vessel is to be put upon a strong fire, which will cause the inclined sublimation of the mercury which will fall into the water.

कच्छप यन्त्रम् ।

जलपूर्णापात्रमध्ये दत्त्वा घटखर्परं सुविस्तीर्णम्
 तदुपरि विड्मध्यगतः स्थाप्यः सूतः कृतः कोष्ठयाम् ।
 लघुलोहकटोरिकया कृतषण्णामृतसन्धिलेपयाच्छाद्यः
 पूर्वोक्तघटखर्परमध्येऽङ्गारैः खदिरकोलभवैः ॥

स्वेदनतो मर्द्दनतः कच्छपयन्त्रस्थितो रसो जरति ।
अग्निवलेनैव ततो गर्भे द्रवन्ति सर्वसत्त्वानि ॥

Kach-chapa Jantram.

A big earthen vessel is to be kept afloat upon water contained in a vessel. Mercury, mixed with bida, is to be kept in a kosthi, placed upon the floating vessel. The mouth of the kosthi is to be covered with a thin iron plate, the joint being closed tightly with six coatings of mud and rags, plastered together. A fire made of Khadira wood charcoal is to be made on all sides of the vessel. Heated in this way, mercury, which is to be rubbed also from time to time, is exhausted. All sorts of essences of metals are then liquefied in that mercury by means of an adequate heat.

दीपिका यन्त्रम् ।

कच्छपयन्त्रान्तर्गतमृन्मयपीठस्थदीपिकासंस्थः ।
यस्मिन् निपतति सूतः प्रोक्तं तद्दीपिकायन्त्रम् ॥

Dipika Jantram.

It is a Kac-chapa Jantram, provided with an earthen lamp, placed upon a mud stand, kept on the surface of the floating earthen basin. Vegetable oil and mercury are to be put into the lamp, kept burning, and fire made on all sides of the Jantram. Mercury will sublimate and fall into the water.

डकी यन्त्रम् ।

भाण्डकण्ठादधश्छिद्रे वेणुनालं विनिक्षिपेत् ।
कांस्यपात्रद्वयं कृत्वा सम्पुटं जलगर्भितम् ॥

नलिकास्यं तत्र योज्यं दृढं तच्चापि कारयेत् ।
 युक्तद्रव्यैर्विनिक्षिप्तः पूर्वं तत्र घटे रसः ॥
 अग्निना तापितो नालात्तोये तस्मिन् पतत्यधः ।
 यावदुष्णा भवेत् सर्वं भाजनं तावदेव हि ।
 जायते रससन्धानं डेकीयन्त्रमितीरितम् ॥

Deki Jantram.

Put one of the extremities of a bamboo reed into a hole made somewhere below the neck of an earthen vessel, well-covered at the mouth, the other end of the reed being connected with another hole made in a samputam consisting of two bell-metal pots containing water. The joints are to be closed very tightly. Mercury, previously mixed with prescribed materials, is to be put into the vessel which is to be placed upon fire. Thus heated, mercury sublimates and falls into the water in the Samputam. The sublimation continues so long as the samputam remains warm.

जारणा यन्त्रम् ।

लोहमूषाद्वयं कृत्वा द्वादशाङ्गुलमानतः ।
 ईषच्छिद्रान्वितामेकां तत्र गन्धकसंयुताम् ॥
 मूषायां रसयुक्तायामन्यस्यां तां प्रवेशयेत् ।
 तोयं स्यात् सूतकस्याध ऊर्ध्वधो वह्निदीपनम् ॥
 तत्र यत्नतो वद्वगाहितम् ।
 दापयेत् प्रचुरं यत्नादाप्लाव्य रसगन्धकौ ॥

स्थालिकायां पिधाघोद्ध, स्थालीमन्यां दृढां कुरु ।
 सन्धिं विलेपयेद् यत्नान् मृदा वस्त्रेण चैव हि ॥
 स्थाल्यन्तरे कपोताख्यं पुटं कर्षाग्निना सदा ।
 यन्त्रस्याधः करीषाम्निं दद्यात्तीव्राग्निमेव वा ॥
 एवं तु त्रिदिनं कुर्यात्ततो यन्त्रं विमोचयेत् ।
 तप्तोदके तप्तचुल्ल्यां न कुर्याच्छीतलां क्रियाम् ॥
 न तत्र क्षीयते सूतो न च गच्छति कुत्रचित् ।
 अनेन च क्रमेणैव कुर्याद्गन्धकजारणाम् ॥

Jarana jantram.

Put sulphur into an iron crucible, twelve angulis in height, and provided with a hole at the bottom. Place mercury into another iron crucible, not provided with any hole. Enter the first crucible into the other, and close very tightly the mouths of the crucible, after pouring a sufficient quantity of garlic juice, duly filtered, into both the crucibles, so that both mercury and sulphur are almost immersed into the liquid. Place the crucibles in a pot containing water covered by another pot, the joint being closed very tightly. The apparatus is then to be heated, by means of what is called "Kapota putam", or simply, by a strong fire. The heating is to be continued for three days. The mercury is to be taken out, after the apparatus is perfectly cooled. On no account should the apparatus be broken open before it is perfectly cooled. Sulphur is thus to be swallowed by mercury. (The process

is to be repeated, if it is desired to let the mercury swallow another morsel of sulphur).

सोमानलम् ।

ऊर्ध्वं वहिरधश्चापो मध्ये तु रससंग्रहः ।
सोमानलमिदं प्रोक्तं जारयेद् गगनादिकम् ॥

Somanala Jantram.

It is an apparatus consisting of an earthen vessel, which contains mercury and is covered very well with mud etc., placed upon another earthen vessel, which contains water and is placed inside a pit cut into the ground, so that the lower part of the first vessel is immersed in water, and its mouth is placed at the same level with the surface of the earth, fire being kindled on the surface of the earth, just above the mouth of the first vessel.

Mercury, mica, etc. are exhausted by means of this apparatus.

गर्भं यन्त्रम् ।

गर्भयन्त्रं विधियते पिष्टिकाभस्मकारकम् ।
चतुरङ्गुलदीर्घान्तु त्र्यङ्गुलोन्मितविस्तराम् ॥
मृगमयीं सुदृढां मूषां वर्तुलं कारयेन्मुखम् ।
लोहस्य विंशतिर्भागा भाग एकस्तु गुग्गुलोः ॥
सुशुद्धां पेषयित्वा तु वारं वारं प्रयत्नतः ।
मूषालोपं दृढं कृत्वा लवणाच्छृदम्बुभिः ॥

कर्षेत् तुषामिना भूमौ स्वदयेन् मृदुमानवित् ।
अहोरात्रं त्रिरात्रं वा रसेन्द्रो भस्मतां व्रजेत् ॥

Garbha Jantram.

This is meant for the reduction of a mercurial paste (mercury combined with prescribed ingredients) to ashes. Prepare a strong earthen crucible, four angulis in length, and three angulis in breadth, with its mouth made smooth, and of the shape of a spheroid. (Mercury and other things are to be put into it at the time of its making, otherwise, it would be difficult to close the mouth after the crucible gets dried.) Twenty parts of powdered iron and one part of guggulu are to be rubbed together very carefully, and made into a paste, with which the crucible is to be plastered, over and over again. It is next to be plastered lightly with a paste, made of two parts of mud, one part of salt, and a sufficient quantity of water. The crucible is then to be burnt in an underground pit for 24 or 72 hours, by means of a mild fire, made of husks. This causes the incineration of mercury.

हंसपाक यन्त्रम् ।

खर्परं सिकतापूर्णं कृत्वा तस्योपरि न्यसेत् ।
अपरं खर्परं तत्र शनैर्मृद्भिना पचेत् ॥
पञ्चचारैस्तथा मूत्रैर्लवणञ्च विड्ं ततः ।
हंसपाकं समाख्यातं यन्त्रं तद्वार्त्तिकोत्तमैः ॥

Hansapaka Jantram.

An earthen vessel, with a wide mouth, is to be

filled in with sand, upon which will have to be placed another vessel containing five different kinds of ksharas, five different kinds of urines, salt, and bida. The apparatus is to be heated by means of a mild fire, slowly but steadily.

वालुकायन्त्रम् ।

सरसां गूढवक्त्रां मृद्वस्त्रांगुलघनावृताम् ।
 शोषितां काचकूपिकां पूरयेत् त्रिषु भागयोः ॥
 भाण्डे वितस्तिगम्भीरे स्थापयेत् तां प्रयत्नतः ।
 कूपिकाकराठपर्यन्तं वालुकाभिश्च पूरिते ॥
 भाण्डवक्त्रं माणिकया सन्धिं लिम्पेन् मृदापचेत् ।
 चुम्बथां तृणस्य चादाहान् माणिकापृष्ठवर्तिनः ॥
 एतद्धि वालुकायन्त्रं यन्त्रतत्त्वविदा स्मृतम् ॥

Baluka Yantram.

It consists of a glass bottle, plastered on the outside with rags and mud, one anguli deep, and dried. It is to be filled with mercury, etc., to the extent of two thirds of its capacity. Its mouth is to be closed by means of a piece of chalk, etc. It is to be placed inside a vessel, one bitasti in height, which is filled with sand upto the neck of the bottle. The mouth of the vessel is to be covered with an earthen basin, the joint being closed with rag, mixed with mud. The heating is to be stopped, when it is found that the external surface of the earthen basin, at the top

of the apparatus, has got so heated as to reduce to ashes a piece of dried grass placed upon it.

—महान्तरम्—

भाण्डे वितस्तिगम्भीरे मध्येनिहितकूपिके ।
 कूपिकाकण्ठपर्यन्तं बालुकाभिश्च पूरिते ॥
 भेषजं कूपिकासंस्थं वह्निना यत्र पाष्यते ।
 बालुकायन्त्रमेतद्धि यन्त्रतत्त्वबुधैः स्मृतम् ॥

A different version.

A Baluka Jantram is an apparatus, by means of which are heated medicines contained in a glass bottle, placed inside a vessel filled with sand upto the neck of the bottle.

अन्यविधं बालुकायन्त्रम् ।

पश्चाद्बालुकापूर्णं भाण्डे निक्षिप्य यत्नतः ।
 पश्यते रसगोलायं बालुकायन्त्रमीरितम् ॥

Another kind of Baluka Jantram.

Mercurial compounds are sometimes heated, buried in a vessel filled with five *adhakas* of sand. This apparatus is also called a Baluka Jantram.

छवणयन्त्रम् ।

बालुस्थले सिकताख्ये निक्षेपाल् छवणस्य हि ।
 यन्त्रोऽयं छवणाख्यकः शस्यते रसकर्मणि ॥

अन्तःकृतरसाधिपताम्रपात्रः खस्य च ।
 लिप्त्वा मृत्स्रवणेनैव सन्धिं भाण्डाननस्य च ॥
 तन्नाण्डं पटुनापूर्य चारैर्वा पूर्ववत् पचेत् ।

Labana Jantram.

A Baluka Jantram is transformed into a Labana Jantram, if sand is replaced by salt or kshara. Instead of a glass bottle, it consists of a copper bowl containing mercury, the cover of the bowl being cemented with mud and salt. This will have to be placed inside an earthen vessel containing salt. The mouth of the vessel is to be covered, the joint being closed with mud and salt. The apparatus is to be heated exactly in the same way as a Baluka Jantram.

नालिकायन्त्रम् ।

सोहनासगतं सूतं भाण्डे स्रवणपूरिते ।
 निरुद्धं विपचेत् प्राग्बन् नालिकायन्त्रमीरितम् ॥

Nalika Jantram,

It is an iron tube in which mercury is confined, and which is kept buried in salt in a Labana Jantram, and heated in the manner described above. (Vide Baluka Jantram and Labana Jantram).

भूधरयन्त्रम् ।

वालुकागूढसर्वाङ्गीं गर्त्ते मूषां रसान्विताम् ।
 दीप्तोत्पलैः संवृणु याद् यन्त्रं तद् भूधराह्वयम् ॥

Bhudhara Jantram.

A crucible, containing mercury, is to be placed inside a pit, cut into the ground, and is to be covered on all sides with sand with which the pit is filled up. A strong fire, made of cowdung cakes, is to be made upon the pit.

पुटयन्त्रम् ।

शरावर्सपुटान्तःस्थं करीषेष्वग्निमानवित् ।

पचेच्चुल्यां द्वियामं वा पाच्यं तत् पुटयन्त्रकम् ॥

Putra Jantram.

It consists of an earthen vessel, containing the materials to be heated, and covered with another basin, the joint being tightly cemented with mud, cloth etc. It is to be heated by a fire made of cowdung cakes, placed on all sides, or simply by being placed for two hours on an oven.

अथ कोष्ठिकायन्त्रम् ।

सत्त्वानां पातनार्थाय पातितानां विशुद्धये ।

कोष्ठिका विविधास्तानां लक्षणमुच्यते ॥

Kosthika Jantram.

For the purpose of extraction of essences from metals, and for the purification of these essences, various kinds of Kosthikas are made use of. Some of them are dealt with below.

अङ्गारकोष्ठिका ।

राजहस्तसमुत्सेधा तदर्द्धायामविस्तरा ।
 चतुरस्रा च कुड्येन वेष्टिता मृन्मयेन च ॥
 एकभित्तौ चरेद् द्वारं वितस्त्या भोगसंयुतम् ।
 द्वारं साद्धं वितस्त्या च सम्मितं सुदृढं शुभम् ॥
 देहल्यधो विधातव्यं धमनाय यथोचितम् ।
 प्रादेशप्रमिता भित्तिरुत्तरङ्गस्य चोद्धृतः ॥
 द्वारं चोपरि कर्त्तव्यं प्रादेशप्रमितं खलु ।
 ततश्चेष्टकया रुद्ध्वा द्वारसन्धिं विलिप्य च ॥
 शिखित्रैस्तां समापूर्य्य धमेद् भस्त्राद्वयेन च ।
 शिखित्रान् धमनद्रच्यमूर्द्ध्वद्वारेण निक्षिपेत् ॥
 सत्त्वपातनगोलांश्च पञ्च पञ्च पुनः पुनः ।
 भवेदङ्गारकोष्ठीयं खराणां सत्त्वपातनी ॥

Angara Koshthica.

It is a quadrangular oven, two cubits in height, one cubit in length, and one cubit in breadth, the four walls being made of earth. At the lower end of one of the walls, there should be made a strong and well-cut hole, one bitasti or one and half bitasti in diameter. Another hole is to be made, one pradesha in diameter, at the upper surface of the oven, which is situated one pradesha below the upper extremities of the four walls. Then edging the borders of the two holes with bricks and plastering them with mud,

the oven is to be filled with charcoal, coal, etc, and the fire is to be kindled by means of two bellows. Fuel and articles to be heated are to be entered into the oven through the upper hole. This kosthika is used for the purpose of extracting essences of hard substances.

पाताल कोष्ठिका ।

दृढभूमौ चरेद् गत्तं वितस्त्या सम्मितं शुभम् ।
 वर्तुलं चाथ तन्मध्ये गर्त्तमन्यं प्रकल्पयेत् ।
 चतुरङ्गुलविस्तारनिम्नत्वे च समन्वितम् ।
 गर्त्ताद् धरतीपर्यन्तं तिर्यङ् नालसमन्वितम् ॥
 किञ्चित् समुन्नतं बाष्पगर्त्ताभिमुखनिम्नगम् ।
 मृच्चक्रीं पञ्चरन्ध्राढ्यां गर्भगर्त्तोपरि क्षिपेत् ॥
 आपूर्य्य कोकिलैः कोष्ठीं प्रथमेदेकमक्षया ।
 पातालकोष्ठिका ह्येषा मृदूनां सत्त्वपातनी ॥

Patala Kosthica.

Cut out, in a hard soil, a circular pit, one bitasti in diameter and in height. Inside this bigger one, cut another pit, four angulis in diameter and in height. Place an iron tube slantingly from the bigger pit to the bottom of the smaller one, the upper extremity of the tube being kept at a level, a little higher than the edge of the bigger pit. Cover the inner pit with an earthen circular lid provided with five holes. The bigger pit is to be filled with charcoal, the fire being

blown by means of a bellows. This kosthi is meant for the extraction of essences of soft substances. (The substance in question is to be kept in an earthen vessel, closely covered, which is to be put upon the fire, the upper extremity of the iron tube being connected with a small hole at the bottom of the earthen vessel, Sufficiently heated, the substance will emit its essence which will pass through the iron tube and deposit itself at the bottom of the smaller pit. For details see Vol. II).

गारकोष्ठी ।

ध्मानसाध्यपदार्थाय गारकोष्ठी प्रकीर्त्तिता ।
 नन्दिना कथिता कोष्ठी सृष्टलोहविना नी ॥
 द्वादशाङ्गुलनिम्नैषा प्रादेशप्रमिता तथा ॥
 चतुरङ्गुलतश्चोद्ग्वलयेन समन्विता ।
 भूरिच्छिद्रवर्ती चर्की वलयोपरि निक्षिपेत् ॥
 शिखिप्रांस्तत्र निक्षिप्य प्रथमेद्द वङ्गनालतः ।
 मूषामृद्भिर्विधातव्यमरसिप्रमितं दृढम् ॥
 अधोमुखञ्च तद्वक्त्रे नालं पञ्चाङ्गुलं खलु ।
 वङ्गनालमिति श्लोकः दृढध्मानाय कीर्त्तितम् ॥

Gara Kosthi.

It is a kosthi meant for heating all sorts of things capable of being heated. Its use was taught by the great Nandi (follower of the Great God). It is specially used for separating the ingredients of a

mixed metal. It is twelve angulis in depth and one pradesha in diameter, with a belt four angulis in height, placed upon it. Place upon this belt a circular lid full of several holes. Cover the kosthi with charcoal fire, and heat the substance in the crucible with what is called a banka nala (bent tube). This tube is very strong, is one aratni in length, is made of earth used for the making of crucibles, and is provided, at one of its extremities, with another tube, five angulis in length, and bent downwards. It is meant for seating a substance very steadily.

कोष्ठीयन्त्रम् ।

हस्तप्रमाणं दीर्घमारमष्टसंख्यांगुलं तिर्यक् ।
 समभूभागे घटितं वृत्तं मृत्कर्मसंपन्नम् ।
 वातायनद्विवृत्तं भस्मीमुखतुल्यमित्यधोभागे ।
 प्रधमेत् पशुवसानालैर्भस्त्राभिर्वाश्रसत्त्वार्थम् ।
 इदमेव कोष्ठं यन्त्रं पूर्णं विद्याद् यथोचिताङ्गरैः ॥

Kosthi Jantram.

It consists of a bucket-shaped, slanting, and cylindrical pipe, made of iron or earth, with one cubit of slanting height, and eight angulis of diameter at the lower end; placed upon a smooth-surfaced ground; plastered all over with mud; and furnished with two circular air passages—the lower one being just as big as to fit in the end of the tube of a bellows.

Fill it with a sufficient quantity of char-coal and blow the fire by means of a tube, made of the bone

of an animal, or by a bellows. It is used especially for extracting essences of mica.

अन्यविधं कोष्ठीयन्त्रम् ।

कृत्वा खल्वकृतिं चुल्लीमङ्गारैः परिपूरिताम् ।
 तस्यां निवेशितं खल्वं पार्श्वे भस्त्रिकया धमेत् ॥
 रसेन मर्दिता पिष्टिः क्षारैररम्लैश्च संयुता ।
 प्रद्रवत्यतिवेगेन स्वेदिता नात्र संशयः ।
 कृतः कान्तायसा सोऽयं भवेत् कोटिगुणो रसः ॥

A different kind of kosthi Jantram.

Prepare an oven of the shape of a mortar, upon which is to be placed a mortar. The oven is to be filled with charcoal, set on fire, which is to be blown by means of two bellows, provided at either side of the oven. Mercurial cake, rubbed with ksharas, amlas, etc, gets quickly smelted, if heated by means of this apparatus. This mercury becomes very efficacious, if the smelting is effected on a piece of kanta iron.

अन्यविधं कोष्ठिकायन्त्रम् ।

षोडशांगुलविस्तीर्णा हस्तमात्रायता शुभा ।
 धातुसत्त्वनिपातार्थं कोष्ठिका परिकीर्त्तिता ॥
 वंशखादिरमाचूकशदरीदारुसंभवैः ।
 परिपूर्णा दृढांगारैरर्द्धे च तेन कोष्ठके ।
 भस्त्रयाचान्तरमार्गेण ज्वालयेच्च हुताशनम् ॥

A third kind of kostika Jantram.

A kosti is one cubit long and twenty four angulis in breadth. It is used for the purpose of extracting essences of metals. Half of the space inside the apparatus is to be filled with hard charcoal, made of bamboo, khadira, madhuka, and badari wood, the fire made by which being fanned by air, sent through the internal passage by a bellows.

खलचरी यन्त्रम् ।

यत्र लोहमये पात्रे पार्श्वोर्द्वयद्वयम् ।
 तादृक् स्वरूपतरं पात्रं वलयप्रोतकोष्ठकम् ॥
 पूर्वपात्रोपरिन्यस्तस्वरूपपात्रे परिधिपेत् ।
 रसं समूर्च्छितं स्थूलपात्रमापूर्य काञ्जिकैः ॥
 द्वियामं स्वेदयेदेवं रसप्रबोधनाय च । ●
 तत् स्यात् खलचरीयन्त्रं रसषाड् गुणयकारकम् †
 सूक्ष्मकान्तमये पात्रे रसः स्याद् गुणावत्तरः ॥

Khalachari Jantram.

It consists of two iron pots, one bigger than the other, each furnished with a circular iron stand. The smaller one with the stand, will have to be placed

* रसप्रबोधनाय रसस्य मूर्च्छितरसस्य रसस्निन्दुरादेः प्रबोधनाय पूर्वरूपं प्रापणायेत्यर्थः । मूर्च्छितरसस्याम्बुयोगेन मर्दनं स्वेदनञ्च प्रबोधनाय कल्पते—तथाहि सर्व्वं अम्लाः प्रबोधकाः ।

† मूर्च्छनामस्तरं प्रबोधनेन रसस्य गुणाधिक्यं जायते ।

upon the bigger one which contains kanji. Put swooned mercury into the smaller pot, and apply heat to the apparatus for six hours. This will cause the regaining of consciousness (i.e., reversion to the original condition) of mercury which is now in a state of swoon. This apparatus is used also for the purpose of increasing the potency of mercury by six times, (viz. by reviving mercury in a state of swoon).

घटयन्त्रम् ।

चतुःप्रस्थजलाधारश्चतुराङ्गलिकाननः ।
घटयन्त्रमिदं प्रोक्तं तदाप्यायनकं स्मृतम् ॥

Ghata Jantram or Apyayanam Jantram.

It is a water vessel containing four prasthas of water, with a mouth four angulis square.

इष्टका यन्त्रम् ।

विधाय वर्तुलं गर्तं मल्लमत्र निधाय च ।
विनिधायेष्टकां तत्र मध्यगर्तवर्ती शुभाम् ॥
गर्तस्य परितः कुर्यात् पालिकामंगुलोच्छ्रयाम् ।
गर्तं सूतं विनिक्षिप्य गर्तास्ये वसनं क्षिपेत् ॥
निक्षिपेद् गन्धकं तत्र मल्लेनास्यं निरुध्य च ।
मल्लपालिकयोर्मध्ये धृदा सम्यङ् निरुध्य च ॥
वनोत्पलैः पुटं देयं कपोताख्यं न चाधिकम् ।
इष्टकायन्त्रमेतत् स्याद् गन्धकं तेन जारयेत् ॥

Istaka Jantram.

A circular pit is to be cut into the ground, and an earthen basin placed upon it. A burnt brick, with a hollow at the centre, is to be placed upon the basin. A circular iron plate, one anguli in height, is to encircle the hollow. Put mercury into the hollow, and cover it with a piece of cloth upon which is to be kept some sulphur. The hollow is now to be covered with another earthen basin, placed upside down. The space between the iron plate and the basin is to be filled in with mud. The whole apparatus is now to be subjected to a mild heat by means of kapota putam.

पलिकायन्त्रम् ।

चषकं वचुलं लौहं विनताप्रोद्ध दण्डकम् ।
एतद्धि पलिकायन्त्रं वह्निजारणहेतवे ॥ ●

Palika Jantram.

It is a circular iron spoon, furnished with a perpendicular rod with its upper extremity bent a little. (It is generally used in drawing out oil).

डमरुकार्ख्यं यन्त्रम् ।

यत्र स्थाल्युपरि स्थालीं न्युब्जां दत्त्वा निरुन्धयेत् ।
यन्त्रं डमरुकार्ख्यं तद् रसभस्मकृते हितम् ॥

Damaruka Jantram.

It consists of one earthen vessel, placed upside down upon another, the joint being closed very tightly. It is used for the purpose of incineration of mercury.

* रसरत्नसमुच्चये राजयश्माधिकारे पञ्चामृतपर्पटी प्रष्टव्या ।

नाभियन्त्रम् (जल्यन्त्रम्) ।

मल्लमध्ये चरेद् गत्तं तत्र सूतं सगन्धकम् ।
 गर्त्तस्य परितः कुड्यं प्रकुर्याद्दङ्गलोच्छ्रितम् ॥
 ततश्चाच्छादयेत् सम्यग् गोस्तनाकारमूषया ।
 सम्यक् तोयमृदा रुद्ध । सम्यगत्रोच्यमानया ॥
 लेहवत् कृतवब्वूलकाथेन परिमर्दितम् ।
 जीर्णकीट्रजः * सूक्ष्मं गुडचूर्णसमन्वितम् ॥
 इयं हि जलमृत् प्रोक्ता दुर्भेद्या सलिलैः खलु ।
 खटिकापटुकिट्टैश्च महिषीदुग्धमर्दितैः ।
 वह्निमृत्स्ना भवेद् घोरवहितापसहा खलु ॥
 एतया मृत्स्नया रुद्धो न गन्तुं क्षमते रसः ।
 विदग्धवनिताप्रौढप्रेम्ना रुद्धः पुमानिव ॥
 ततो जलं विनिक्षिप्य वह्निं प्रज्वालयेदधः ।
 नाभियन्त्रमिदं प्रोक्तं नन्दिना सर्ववेदिना ।
 अनेन जीर्यते सूतो निर्धूमः शुद्धगन्धकः ॥

Nabhi Jantram (Jala Jantram).

At the centre of an earthen basin put mercury and sulphur, surrounded by a circular earthen enclosure, one anguli in height. Cover the space by means of a crucible of the shape of a cow's teat, placed upside down, and plaster the joint by means

* जीर्णेष्टिकारजः इति पाठान्तरम् ।

of the following paste, which serves as a good water-proof :—oxidised iron, finely powdered,* molasses, and lime, rubbed together with a highly condensed decoction of the bark of babbula. This plaster is called "water mud", and water cannot pass through it. Similarly, chalk, salt, and oxidised iron, rubbed together with buffalo's milk, gives rise to a plaster, called, "fire mud". This plaster is a strong fire proof, The joint of the basin and the crucible is to be plastered with this fire mud, which will prevent the mercury from coming out, even when heated. Water is then to be poured into the basin, and heat applied underneath. By this way mercury is exhausted, and becomes incapable of sublimation, It is also purified by the exhaustion of sulphur.

जलयन्त्रम् (प्रकारान्तर्गम्) ।

उपर्यापस्तले तापो मध्ये च रसगन्धकौ ।
 जलयन्त्रमिदं गोप्यं यन्त्रश्रेष्ठं समीरितम् ॥
 अस्मिन् स्वर्णादिभूसत्त्वं गन्धकादिं च जारयेत् ।
 कृत्वा लोहमयीं घटीमधोमुखसमन्विताम् ॥
 मुखमध्ये क्षिपेद्द्रव्यं घटीवक्त्रं निरोधयेत् ।
 लोहचक्रिकया रुद्ध्वा तत्सन्धिं साधु लेपयेत् ॥
 तस्मिन् कोष्ठे क्षिपेदस्रं ज्ञागं लोहरजोऽन्वितम् ।
 पुनः पुनश्च संशुष्के पुनरेभिश्च लेपयेत् ॥

* Powder of overburnt brick, according to another version.

लेहवत् कृतवब्बूलकाथेन परिमर्दितम् ।
 जीर्णैष्टिकारजः सूक्ष्मगुडचूर्णसमन्वितम् ॥
 लेपयेत् खलु तत् प्रोक्तं दुर्भेद्यं सलिलैः खलु ।
 खटिका पटुकिष्टैश्च महिषीदुग्धमर्दितैः ॥
 यत्तया मृतस्त्रया रुद्धो न गन्तुं क्षमते रसः ।
 विदग्धवनिताप्रौढप्रेम्णा वद्धः पुमानिव ॥
 घटीमधोमुखां ताञ्च निमज्ज्य जलपात्रके ।
 पाचयेद् यत्नतः सिद्धो वह्निं प्रज्वालयेदधः ॥
 अथवा कारयेन् मूषां पात्रलम्बामधोमुखीम् ।
 लोहानामनुरूपां च तन्मूषामुखरोधिनीम् ॥
 दत्त्वा चान्यां तयोः सन्धिं विलेप्य च यथाविधि ।
 जलमूद्घं विनिक्षिप्य निःसकोचं विपाचयेत् ॥

Jala Jantram.

(This is another version of the preparation of a Jala Jantram or Nabhi Jantram. According to this, the joint of the basin and the crucible is, first of all, to be plastered again and again with powdered iron, mixed with goat's blood, and dried every time. It is then to be plastered with the same two pastes, as described above. In other respects, the two versions are almost the same).

ग्रस्तयन्त्रम् ।

मूषां मूषोदराविष्टामायन्तसमवत्तुलाम् ।
चिपिटां च तले प्रोक्तं ग्रस्तयन्त्रं मनीषिभिः ।
सूतेन्द्रबन्धनार्थं हि रसविद्भिरुदीरितम् ॥

Grasta Jantram.

It consists of two crucibles, one of which is to be placed inside another. Both of these are to be cylindrical, except at the bottom, where they are flat. This apparatus is used for the solidification of mercury.

स्थालीयन्त्रम् ।

स्थाल्यां ताम्रादि निक्षिप्य मल्लेनास्यं निरुध्य च ।
पच्यते स्थालिकाधःस्थं स्थालीयन्त्रमितीरितम् ॥

Sthali Jantram.

It is a vessel covered with a basin. Copper, etc. contained in this vessel, is heated by fire applied underneath.

धूपयन्त्रम् ।

विधायाष्टांगुलं पात्रं लौहमष्टांगुलोच्छ्रयम् ।
कण्ठाधो द्वयंगुले देशे जलाधारं हि तत्र च ॥
तिर्प्यग्लोहशलाकाश्च तन्वीस्तिर्प्यग्विनिक्षिपेत् ।
तनूनि स्वर्णपत्राणि तासामुपरि विन्यसेत् ॥
पात्राधो निक्षिपेद् धूमं वक्ष्यमाणमिहैव हि ।
तत्पात्रं न्युञ्जपात्रेन च्छादयेदपरेण हि ॥

मृदा विलिप्य सन्धिं च वह्निं प्रज्वालयेदधः ।
 तेन पत्राणि कृत्स्नानि हतान्युक्तविधानतः ॥
 रसे चरति वेगेन द्रुतं गर्भे द्रवन्ति च । *
 गन्धालकशिलानां हि कज्ज्वल्या वा मृताहिना ॥
 धूपनं स्वर्णपत्रानां प्रशस्तं परिकीर्तितम् ।
 तारार्थं तारपत्राणि मृतवङ्गेन धूपयेत् ॥
 धूपयेच्च यथायोग्यैरन्यैरुपरसैरपि ।
 धूपयन्त्रमिदं प्रोक्तं जारणाद्रव्यसाधनम् ॥

Dhupa Jantram.

Prepare an iron pot, eight angulis in length, breadth, as well as in height, and put into this, a water trough, two angulis below the brim. Place a few thin iron sticks upon the water trough in a slanting manner so as to support thin gold leaves, meant to be reduced to ashes. At the bottom of the iron pot keep the articles mentioned below, meant to emit smoke rising up to the gold leaves. The iron pot is now to be covered with another iron pot, placed upside down, the joint being closed with mud, and fire placed underneath. The gold leaves are thus reduced to ashes, and undergo internal liquefaction, if thrown upon mercury which has been made to move quickly. (According to another version, the mercury with which the leaves were painted, now sublimates and deposits itself at the bottom of the water trough).

* रसश्चरति वेगेन द्रुतं गर्भे द्रवत्यपि । इति पाठान्तरम् ।

Fumigation of gold leaves is to be effected by means of a kajjvali (black sulphide of mercury) made of mercury and any one of these three—gandhaka (sulphur), haritala (orpiment), and manas sila (realgar). The fumigation may also be effected by means of incinerated lead. Incinerated tin, etc. may be used for the fumigation of silver leaves, if it is intended to make use of this silver in course of a reduction of base metals into silver. The Dhupa Jantram is used in preparing materials with which mercury is to be exhausted.

खल्वयन्त्रम् ।

खल्वयोम्या शिला नीला श्यामा क्लिग्धा दृढा गुरुः ।

षोडशांगुलकोत्सेधा नवांगुलकविस्तरा ॥

चतुर्विंशांगुलदीर्घा वर्षणी द्वादशांगुला ।

विंशत्यंगुलदीर्घा वा स्यादुत्सेधे दशांगुला ॥

खल्वप्रमाणं तज्ज्ञेयं श्रेष्ठं स्याद् रसमर्द्दने ।

खल्वयन्त्रं द्विधा प्रोक्तं रसादिसुखमर्द्दने ।

निरुद्गारौ सुमसृणौ कार्यौ पुत्रिकया युतौ ॥

Khalva Jantram.

A khalva or mortar should be made of stone, blue or black, smooth, strong, and heavy. It should be of the following dimensions :—16 angulis in height, 9 angulis in breadth, and 24 angulis in length. It is to be provided with a pestle, 12 angulis in length.

A mortar may also be 20 angulis in length and 10 angulis in height. Such a mortar is in common use.

These two kinds of mortars, used for the purpose of rubbing mercury, etc. conveniently, should be so strong as not to wear away very rapidly by friction. They should be very smooth and be provided with pestles.

मतान्तरम् ।

उत्सेधे स दशांगुलः खलु कलातुल्यांगुलायामवान् ।
विस्तारेण दशांगुलो मुनिमितैर्निम्नस्थितैर्बर्वांगुलैः ॥
पाल्या द्वयंगुलविस्तरश्च मसृणोऽतीवाद्ध चन्द्रोपमो ।
घर्षो द्वादशांगुलश्च तदयं खल्वो मतः सिद्धकैः ॥

Another version.

A mortar should have the following dimensions :—Ten angulis in height, sixteen angulis in breadth at the upper part, seven angulis in breadth at the bottom, and two angulis in thickness. It should be very smooth, and have a crescent-like shape. It should be provided with a pestle, twelve angulis long.

मतान्तरम्—वर्तुल खल्वः ।

द्वादशांगुलविस्तारः खल्वोऽति मसृणोपलः ।
चतुरङ्गुलनिम्नश्च मध्येऽति मसृणीकृतः ॥
मर्दकश्चिपिटोऽधस्तात् सुग्राहश्च शिखोपरि ।
अयं हि वर्तुलः खल्वो मर्दनेऽति सुखप्रदः ॥

Circular mortar.

It is a circular mortar, made of a very smooth stone, twelve angulis in diameter, at the upper part,

and four angulis in diameter at the bottom. The pestle is to be flat at the lower extremity, and capable of being handled easily, at the upper end. Rubbing in this mortar is very comfortable.

लोह कल्पः ।

लौहो नवांगुलः खल्वो निम्नभागे षडंगुलः ।
 मर्दकोऽष्टांगुलश्चैव तप्तखल्वभिधोऽप्ययम् ॥
 कृत्वा खल्वकृतिं चुष्णीमङ्गारैः परिपूरिताम् ।
 तस्यां निवेशितं खल्वं पार्श्वे भस्त्रिकया धमेत् ॥
 रसेन मर्दिता पिष्टिः चारैरम्लैश्च संयुता ।
 प्रद्रवत्यतिवेगेन स्वेदिता नात्र संशयः ।
 कृतः कान्तायसा सोऽयं भवेत् कोटीगुणो रसः ॥

Iron mortar.

Its breadth is 9 angulis at the top and six angulis at the bottom, having a pestle eight angulis in length. It may be termed a hot mortar, if heated in the following manner : Construct an oven of the shape of a mortar and fill it with charcoal fire. Place the mortar upon the fire and blow it by means of a bellows. Mercury rubbed in a hot mortar made of kanta iron, grows in efficacy by a hundred times.

अन्यविधं तप्तखल्वम् ।

अजाशकृत् तुषाम्निश्च भूगर्त्ते त्रितयं क्षिपेत् ।
 तस्योपरि स्थितं खल्वं तप्तखल्वमिति स्मृतम् ॥

Another kind of hot mortar.

Goat's stool, husk of paddy, and fire are to be kept in a pit made in the ground. The mortar, placed upon this pit, is called a hot mortar.

ऊर्ध्वं नलिकायन्त्रम् (टंकयन्त्रम्) ।

भाण्डकण्ठादधश्छिद्रे वेणुनालं विनिक्षिपेत् ।
समानकरकां वापि भाण्डकण्ठे निवेशयेत् ॥
सन्धिं लिप्तुं च नालाग्रं काचभाण्डं निधापयेत् ।
अधस्ताद् प्रस्रवेद् वारि टंकयन्त्रमिति स्मृतम् ॥

Urdhva Nalika Jantram (Tanka Jantram).

Make a hole just below the neck of a vessel and fit in to this a bamboo pipe, the mouth of the vessel being tightly covered with a basin. Join the other extremity of the bamboo pipe with a glass vessel, into which is to flow vapour coming out of the vessel through the pipe. (This apparatus is meant for the extraction of essences of materials kept with liquids in the vessel which is to be placed upon fire).

पाताळ यन्त्रम् ।

हस्तप्रमाणं निम्नं च गर्तं कृत्वा प्रयत्नतः ।
तस्मिन् भाण्डञ्च संस्थाप्य तथान्यत् पात्रमाहरेत् ॥
तस्मिन्नौषधवर्गं च दत्त्वान्यच्च शरावकम् ।
मुखे संस्थाप्य छिद्राणि कृत्वा चैव शरावके ॥

शरावसहितं पात्रं गर्त्तस्थं भाजने न्यसेत् ।
 संधिलेपं ततः कृत्वा गर्त्तमापूर्य्य मृतस्रया ॥
 पश्चादग्निं च प्रज्वाल्य स्वांगं शीतं ससुद्धरेत् ।
 पश्चात् तत्पात्रमध्यस्थं पात्रं युक्तया समाहरेत् ॥
 तदंतःस्थं च तत्तैलं गृह्णीयाद् विधिपूर्व्वकम् ।
 पातालाख्यमिदं यन्त्रं भाषितं शम्भुना स्वयम् ॥

Patala Jāntram.

In a pit in the ground, one cubit deep, place a vessel. Another vessel containing prescribed materials and having its mouth covered with a basin, full of holes, is to be kept inside the first vessel, which is also to be covered with another basin. The joints are to be closed by means of mud, and the apparatus heated. When cooled of itself, the oil or tincture, as the case may be, is to be taken out from inside the apparatus.

तेजोयन्त्रम् (लवकयन्त्रम्) ।

भाण्डे चाद्धं प्रमाणेन द्रव्यं स्थाप्यं प्रयत्नतः ।
 तन्मुखे द्विनलीयन्त्रं संस्थाप्य च निरोधयेत् ॥
 पश्चान् मन्दाग्निमुज्ज्वाल्य जलं दत्त्वाद्धं पात्रके ।
 तत् तप्तनलिकाद्वारा निःसार्य्य च पुनः पुनः ॥
 नीचस्थनलिकावक्त्रे भाण्डं स्थाप्यं द्वितीयकम् ।
 तस्मिन्नर्कं च पतितं गृह्णीयात्तु विशेषतः ।
 तेजोयन्त्रमिति ख्यातं तथान्यैर्लवकं मतम् ॥

Tejo Jantram (Lavaka Jantram).

Fill up one half of a vessel with prescribed materials, and the other half with water, and close the mouth of the vessel with a lid provided with two tubes, one of which is raised a little high up, and then bent downwards, the other being bent low. Place the vessel upon mild fire, and let hot water come out of the high pipe, again and again, (the other being closed for the time being). Then, when a sufficient number of times, (vapour condensed into) water has been allowed to come out through the higher pipe, let the arkam (concentrated extract or tincture) come into a pot placed at the mouth of the lower pipe.

तुला यन्त्रम् ।

वृन्ताकाकारमूषे द्वे तयोः युञ्ज्यादधः खलु ।
 प्रादेशमात्रां नलिकां मृदालिसद्विसन्धिकाम् ॥
 तत्रैकस्यां क्षिपेत् सूतमन्यस्यां गन्धचूर्णकम् ।
 निरुद्धयमूषयोर्वक्त्रं त्रालुकायन्त्रयोः क्षिपेत् ॥
 गन्धाधो ज्वालयेदग्निं तुलायन्त्रमुदाहृतम् ।
 त्वलगन्धाश्मसारार्णां जारणार्थं प्रयुज्यते ॥

Tula Jantram.

Two crucibles, egg-shaped, are to be joined at the lower parts by means of a wooden pipe, one pradesha in length*, the two joints being closely

* pradesha is the maximum distance measured from the tip of the thumb to that of the little finger.

cemented by rag, soaked with mud. In one of these two crucibles put mercury, and powdered sulphur in the other. Having closed the mouths of these two crucibles, put them into two different Baluka Jantrams, the wooden pipe referred to above passing through a hole in each of the two vessels. Fire is now to be applied below the vessel containing the sulphur crucible. This leads to the exhaustion of sulphur by the mercury (which remains constant in weight, and does not contain any trace of the sulphur swallowed or exhausted). This apparatus is used for the exhaustion of haritala, gandhaka, manas sila, lauha (iron), etc. It is called an apparatus having the shape of a tula (libra or balance).

गौरी यन्त्रम् ।

गौरीयन्त्रम् प्रवक्ष्यामि सुखदं जारणाविधौ ।

कृत्वा चाष्टांगुलोच्छ्रायां चतुरस्रां समेष्टिकाम् ॥

श्वेतनागात् समुत्कृत्य मध्ये चूर्णेन लेपयेत् ।

श्लक्ष्णां रसकृतां पिष्टिं कृत्वा प्राग्बद्धामभ्रजाम् ॥

रूप्यजां हेमजां वापि सत्वेनापि विनिर्मिताम् ।

निवेश्य तत्र चोद्धर्धो बलेश्चूर्णं पिधाय च ॥

तस्याः पिष्ट्याश्चतुर्थांशं वारं वारं विशोषयेत् ।

वक्त्रे खर्परचर्कीं तु दत्त्वा लिप्यावशोष्य च ।

ऊर्ध्वं ह्यक्षुराकारं पुटं दद्यात् लघूपलैः ॥

Gauri Jantram.

It is used for the purpose of an easy exhaustion of mercury. Prepare a brick, eight angulis square, with its surfaces made very smooth. Make a pit at the central part of this brick, by means of glass, and plaster the surface of the pit with lime. Then, prepare a cake of mercury, mixed with mica, silver, or gold, or with the essences of the same. Inside the pit is now to be placed the cake, covered on all sides with powdered sulphur, one fourth in quantity to the mercury, and dried. The mouth of the pit is to be covered with a basin, the joint being cemented, plastered, and dried. The apparatus is now to be covered lightly with cowdung cakes, arranged in the shape of a horse-shoe. These cakes are then to be burnt

चक्र यन्त्रम् ।

गर्त्तबाह्ये भवेद् गर्त्तो मध्ये गर्त्ते रसं कुरु ।
चक्रयन्त्रमिदं ख्यातं बाह्ये गर्त्ते बृहत् पुटम् ॥

Chakra Jantram.

It consists of a pit inside a bigger one. Mercury is to be kept in the inner pit, the outer and the bigger pit being filled with cowdung cakes duly set fire to.

चक्र यन्त्रम् ।

दीर्घकण्ठ्यां काचकूप्यां गिलयेत् काचभाण्डकम् ।
तिय्यक् कृत्वा पचेच्चुल्यां चक्रयन्त्रमिदं स्मृतम् ॥

Baka Jantram.

Fit in a glass bowl to a glass bottle with its upper part elongated. Heat is to be applied below the bowl, the apparatus being kept in a slanting posture, (This apparatus is used for distillation of liquors, tinctures etc).

नाडिका यन्त्रम् ।

विनिधाय घटे द्रव्यं कनीयांसमधोमुखम् ।

घटमन्यं मुखे तस्य स्थापयित्वा द्रयोर्मुखम् ॥

मृदुमृद्भिः समालिप्य नाडिकां विनिवेशयेत् ।

यन्त्रात् कुण्डलितां भित्त्वा जलद्रोणीं महोत्तमाम् ॥

आधारभाण्डपर्यन्तं ततश्चुल्यां विधारयेत् ।

अधस्ताज् ज्वालयेद् वह्निं यावद् बाष्पो विशेदधः ॥

गृह्णीयान् निर्मलं द्रावमाधारस्थितमुत्तमम् ।

नाडिकायन्त्रमेतद्धि मुनिभिः परिकीर्तितम् ॥

Nadika Jantram.

Place a small bowl, upside down, upon a vessel, containing material to be distilled, and close the junction of the mouths with soft mud, etc. Connect the apparatus, by a tube passing in curls through a water trough, with another vessel having its mouth closed tightly. The apparatus is to be heated until the whole of the extract is taken out.

वारुणीयन्त्रम् ।

ऊर्ध्वं तोयसमायुक्तं जलद्रोणीविवर्जितम् ।
तोयसंवेष्टिताधारमृजुनाद्दीप्तमिह तम् ।
यन्त्रं तत् वारुणीसंज्ञं सुरासाधनकर्मणि ॥

Baruni Jantram.

This differs from a Nadika Jantram in this that it has got a water pot placed at the top of the vessel containing the drugs ; it has no water trough through which the tube is to pass in a Nadika Jantram ; it requires a straight and not a bent tube, and that it requires the pot meant to contain the extract to be surrounded on all sides with water.

वारुणीयन्त्रम्—प्रकारान्तरम् ।

बीजद्रव्यं घटे दत्त्वा संछाद्यान्येन तन्मुखम् ।
मृदा मुखं विलिप्याथ नाड्यो वंशादिसंभवाम् ॥
यन्त्रादाधारगां कृत्वा स्त्रावयेद् विधिना रसम् ।
वारुणीयन्त्रमेतद्धि सुरासंसाधने शुभम् ॥

(Translation not necessary).

अथ मूषादिनिरूपणम् ।

मूषा हि क्रौञ्चिका प्रोक्ता कुमुदी करभादिका ।
पाचनी वह्निमित्रा च रसवेदिभिरिष्यते ॥
मुष्णाति दोषान् मुषेद् वा सा मूषेति निगद्यते ।
उपादानं भवेत् तस्या मृत्तिका लोहमेव च ॥

मृत्तिका पाण्डुरस्थूलाकंकरा शोणपाण्डुरा ।
 चिराध्मानसहा सा हि मूषार्थमतिशस्यते ।
 तदभावे च वाल्मीकी कोलाली वा समीर्यते ॥

Crucibles.

A musha (crucible) is so named, simply because it causes the removal of impurities from metals by their incineration. The main ingredients of a crucible are mud and iron. The mud which is yellow, reddish yellow, tough, devoid of pebbles, and is capable of standing fire for a long time, is commendable for the purpose of preparing crucibles. In the absence of such mud, preference is to be given to the mud created by white ants, or to the mud used by the potters.

या मृत्तिका दग्धतुषैः शणेन शिखित्रकैर्वा
 हयलहिना च ।
 लोहेन दण्डेन च कुट्टिता सा साधारणा स्यात्
 खलु मूषिकार्थे ॥

An ordinary crucible is prepared with mud, mixed with burnt husk, hemp fibres, and cow dung or horse's stool—all mixed well and hammered by means of an iron rod.

श्वेताश्मानस्तुषा दग्धाः शिखित्राः शणकपर्पटौ ।
 लहिः किट्टञ्च कृष्णामृत्ला संयोज्या मूषिकामृदा ॥

The mud used in the preparation of crucibles is to contain, in sufficient quantities, white stone finely

powdered, burnt husks, cow dung, hemp fibers, horse's stool, oxidised iron, and black mud.

वज्र मूषा ।

मृदस्त्रिभागाः शण्णलद्भिभागौ भागश्च निर्द्घतुषो-
पलादेः ।

किट्टाद्धं भागं परिखण्ड्य वज्रमूषां विदध्यात् खलु-
सत्त्वपाते ॥

Bajra Musa.

A Bajra Musa is prepared with the following :— three parts of mud, one part of hemp fiber, one part of cow dung or horse's stool, one part of burnt husk and powdered stone combined, and half a part of oxidised iron. This crucible is used in the extraction of essences of metals.

योगमूषा ।

दग्धाङ्गारतुषोपेता मृत्स्ना वल्मीकमृत्तिका ।

तत्तद्विड्मसमायुक्ता तत्तद्विड्मविलेपिता ॥

तथा या विहिता मूषा योगमूषेति कथ्यते ।

अनया साधितः सूतो जायते गुणवत्तरः ॥

Joga Musa.

Joga Musa is made of the following :—burnt charcoal, burnt husk, mud, and earth raised by white ants, mixed with a sufficient quantity of bida, suited to the requirements of the case. The inner side of the crucible is to be plastered with a sufficient quantity

of the same bida. Mercury heated in this crucible, becomes more powerful than before.

वज्रद्रावणिका मूषा ।

गारभूनागधौताभ्यां शणैर्दग्धतुषैरपि ० ।

समैः समा च मूषामृगमहिषोदुग्धसंयुता ॥

त्वया विरचिता मूषा लिप्ता मत्कुणशोणितैः ।

वालाब्दध्वनिमूलैश्च वज्रद्रावणकौशिका ।

सहतेऽग्निं चतुर्यामं द्रवेणापूरिता सती ॥

Bajradrabanika Musa.

Mud, immersed in water for a long time, soil raised by earth-worms, jute fibers, and burnt husk,* each equal in quantity, and the mud suitable for the preparation of crucibles, as described above, equal in quantity to the fore-going—all of these rubbed together with buffalo's milk and plastered with a paste, made of the blood of bugs, balaka, and the root of tanduliyaka, make a crucible strong enough for the purpose of smelting diamonds. If filled with a liquid substance, and heated, it can stand the heat of fire for twelve hours.

गारमूषा ।

दुग्धषड्गुणगाराढ्या किट्टाङ्गारशणान्विता ।

कृष्णामृद्भिः कृता मूषा गारमूषेत्युदाहृता ।

यामयुग्मपरिध्मानान्नासौ द्रवति वह्निना ॥

* तुषमष्टगुणेन चेति पाठान्तरम् ।

* according to another version eight parts of burnt husk is to be used, instead of jute fiber and burnt husk.

Gara Musa.

Buffalo's milk, mud immersed in water for a long time, and six times in weight of the milk, oxidised iron, charcoal, jute fiber, and black soil are to be rubbed together and made into a crucible, called, "Gara Musa." This can stand fire for more than six hours.

वरमूषा ।

वज्राङ्गारतुषास्तुल्यास्तच्चतुर्गुणमृत्तिका ।
गारश्च मृत्तिकातुल्यः सबैरैर्विनिर्मिता ।
वरमूषेति निर्दिष्टा याममग्निं सहेत सा ॥

Bara Musa.

Powdered iron (or mica, or diamond, or quartz), charcoal, burnt husk, one part each, mud for crucible—four parts, mud immersed in water for a long time—four parts—all these are to be rubbed together and made into what is called a Bara Musa. This can stand fire for three hours.

वर्णमूषा तथा रौप्यमूषा ।

पाषाणसहिता रक्ता रक्तवर्गाम्बुसाधिता ।
मृत्तया साधिता मूषा क्षितिस्त्रेचरक्षेपिता ॥
वर्णमूषेति सा प्रोक्ता वर्णोत्कर्षे नियुज्यते ।
एवं हि श्वेतवर्गेण रूप्यमूषा समीरिता ॥

Barna musha or raupya musha.

Powdered stone, red earth, rubbed with the juice of that group of plants called the rakta-varga (see

page 304) are to be made into a crucible which is to be plastered with catechu and green sulphate of iron. This is called, "Barna musha". It is used for intensifying the colour of red metals. If plastered with the juice of plants called, "shweta varga," instead of that of rakta varga (see page 304), the crucible is called a "Raupya Musa."

विडमूषा ।

तत्तद्भेदमृदोद्भूता तत्तद्विड्विलेपिता ।
देहलोहार्ययोगार्थं विडमूषेत्युदाहृता ॥

Bida Musha.

A crucible prepared with specially prescribed mud, and plastered with specially prescribed bida, is called Bida Musha. This is used for the preparation of medicines for strengthening the body, and for transformation of metals.

वृन्ताकमूषिका ।

वृन्ताकाकारमूषायां नालं द्वादशकांगुलम् ।
धत्तुरपुष्पवच्चोद्धं सुदृढं श्लिष्टपुष्पवत् ॥
अष्टांगुला च सच्छिद्रा सा स्याद् वृन्ताकमूषिका ।
अनया खर्परादीनां मृदूनां सत्त्वमाहरेत् ॥

Brintaka Mushika.

It is a crucible of the shape of a brinjal (egg fruit), and furnished with a strong funnel, twelve angulis in length, of the shape of a dhatura flower, and attached

to the crucible, in the same manner as a flower is to its stem. This crucible is eight angulis in length, and is provided with an outlet (through the passage in the funnel). This is used for the purpose of extracting essences of kharpara, etc.

गोस्तनी मूषा ।

मूषा या गोस्तनाकारा शिखायुक्तपिधानका ।
सत्त्वानां द्रावणे शुद्धौ मूषा सा गोस्तनी भवेत् ॥

Gostani Musha.

This crucible is of the shape of a cow's udder, and is provided with a cover furnished with a handle. It is used for the purpose of extraction of essences, and of purification of metals.

मल्ल मूषा ।

निर्दिष्टा मल्लमूषा या मल्लद्वितयसंपुटात् ।
पर्यट्यादिरसादीनां स्वेदनाय प्रकीर्त्तिता ॥

Malla Musha.

This crucible is made of one basin, placed up side down upon another, the joint being tightly closed. It is used for the purpose of heating parpati and other mercurial preparations.

पक्कमूषा ।

कुल्लालभाण्डरूपा या दृढा च परिपाचिता ।
पक्कमूषेति सा प्रोक्ता पोट्टल्यादिविपाचने ॥

Pakva Musha.

It is a small vessel such as is made by potters, made specially strong, and burnt, as usual. It is specially used for the purpose of heating a special class of medicines, called "pottali". etc.

गोलमूषा ।

निर्वक्त्रगोलकाकारा पुटनद्रव्यगर्भिणी ।
गोलमूषेति सा प्रोक्ता सत्वरद्रव्यशोधनी ॥

Gola-musha.

It is a ball-shaped crucible, without any mouth. The material meant to be subjected to heat is to be kept inside this crucible at the time it is prepared. (Having no mouth and no joint whatsoever, it leaves very little room for the passing of air from the inside to the outside, and vice versa). By means of this crucible, it is possible to have the desired operation performed very soon.

महामूषा ।

तले या कूर्पराकारा क्रमादुपरि विस्तृता ।
स्थूलवृन्ताकवत् स्थूला महामूषेत्यसौ स्मृता ।
सा चायोऽश्रकसत्त्वादेः पुटाय द्रावणाय च ॥

Maha Musha.

It is pointed at the bottom, and gradually widened on the upper parts, resembling a big egg fruit in appearance. It is used for the purpose of extraction of essences and incineration of iron, mica, etc.

मण्डूकमूषा ।

मण्डूकाकारमूषा या निम्नतायामविस्तरा ।
षडंगुलप्रमाणेन मूषा मण्डूकसंज्ञका ।
भूमौ निखन्यतां मूषां दद्यात् पुटमथोपरि ॥

Manduka Musha.

It is of the shape of a frog, and is six angulis in height, length, and breadth. It is to be put, inside a pit in the earth, and covered with fire made at the top.

मूसलमूषा ।

मूषा या चिपिटा मूले वर्तुलाष्टांगुलोच्छ्रया ।
मूषा सा मूसलारूपा स्याच्चक्रिवद्धरसे हिता ॥

Musala Musha.

It is flat at the bottom, cylindrical, and eight angulis in height. It is suitable for the purpose of heating a paste of mercury.

अथ पुटानि ।

रसादिद्रव्यपाकानां प्रमाणज्ञापनं पुटम् ।
नेष्टो न्यूनाधिकः पाकः सुपाकं हितमौषधम् ॥
लोहादेरपुनर्भावो गुणाधिक्यं ततोऽप्रता ।
अनधुमज्जनं रेखापूर्णता पुटतो भवेत् ॥
पुटाद् प्रावृणो लघुत्वं च शीघ्रव्याप्तिश्च दीपनम् ।
जारितादपि सूतेन्द्रास्त्रोहानामधिको गुणः ॥

*Putams. **

The excellency of the preparation of mercury and other things depend upon the prescribed number of putam. A medicine must not be subjected to a greater or a less number of putam than are actually necessary for its efficaciousness.

By means of putam it is possible to reduce a metal to a state of incineration, from which it cannot be restored to its former condition. It is putam which causes the excellence in the quality of metals, the ability of metals to float in water, the ability of metals to enter into the lines in the palms, lightness of metals, rocks, and other hard substances, the power of metals etc., to spread through the system in a short time, and the ability of the metals to increase the power of digestion. It is putam which invests metals with even a greater amount of efficaciousness than what is possessed by exhausted mercury.

महापुटम् ।

निम्ने विस्तरतः कुण्डे द्विहस्ते चतुरस्रके ।
 वनोत्पलसहस्रेण पूरिते पुटनौषधम् ॥
 कौञ्चिं रुद्धं प्रयत्नेन पिष्टकोपरि निक्षिपेत् ।
 वनोत्पलसहस्राद्धं कौञ्चिकोपरि विन्यसेत् ॥
 बहिं प्रज्वालयेत्तत्र महापुटमिदं स्मृतम् ॥

* A putam or samputam is an act of burning a material being kept inside two basins, joined with each other by means of mud, rag, mixed with mud etc. The apparatus, so constructed, is also called a putam or samputam.

Mahaputam.

Fill up a pit, of cubical shape, two cubits in length, breadth, and height, with one thousand pieces of cowdung balls, found dried in a pasture. The prescribed article, confined in a crucible, tightly covered, is to be put upon this heap of cowdung cakes. Five hundred pieces of the same fuel are then to be put upon the crucible, and fire set upon the heap. Heating an article in this way is called, burning it by "Mahaputam."

गजपुटम् ।

गजहस्तप्रमाणेन चतुरस्रं च निम्नकम् ।
 पूर्णं चोपलशाठीभिः कण्ठावध्यथ विन्यसेत् ॥
 विन्यसेत् कुमुदीं तत्र पुटनद्रव्यपूरिताम् ।
 पूर्वाच्छगणतोऽर्द्धानि गिरिण्डानि विनिक्षिपेत् ॥
 एतद् गजपुटं प्रोक्तं महागुणविधायकम् ।
 साधारणनरांगुल्या त्रिंशदंगुलको गजः ॥

Gaja putam.

A cubical pit, one gaja in length, breadth, and height, each, is to be filled up with cowdung cakes up to the brim. A crucible, containing the prescribed material, is to be placed upon the heap of cowdung cakes. Half the number of the cakes, required for filling up the pit, are now to be placed upon the heap, which is next to be set fire to. Burning a metal in this way is called, burning by "Gajaputam." A "gaja" is equivalent to 30 angulis of an ordinary human

being. Burning in this way increases the potency of mercury to a great extent.

वाराहपुटं कुक्कुटपुटं कपोतपुटञ्च ।

इत्थं चारत्तिके कुण्डे पुटं वाराहमुच्यते ।

पुटं भूमितले यत्तद्वितस्तिद्वितयोच्छ्रयम् ॥

तावच्च तलविस्तीर्णं तत् स्यात् कुक्कुटकं पुटम् ।

यत् पुटं दीयते भूमावष्टसंख्यैर्वनोत्पलैः ।

तद् बद्धं सूतभस्मार्थं कपोतपुटमुच्यते ॥

Baraha putam, kukkuta putam, and kapota putam.

A Baraha putam is a pit, one aratni in each of the three dimensions, meant for the burning of metals, etc., in the same manner, as described above. A kukkuta putam is a pit, two bitastis in length and breadth, meant for the burning of metals, etc., in the same manner, as described above.

A kapota putam is an act of burning in which a crucible, containing mercury etc., and tightly closed, is subjected to heat of fire made by eight pieces of cowdung balls found dried in the pasturage. This process of heating is resorted to for the purpose of effecting an incineration of mercury.

गोवर्षपुटम् ।

गोष्ठान्तर्गोखुरक्षुराणां शुष्कं चूर्णितगोमयम् ।

गोवर्षं तत् समादिष्टं वरिष्ठं रससाधनम् ॥

गोर्ब्वरर्ब्वर्वा तुषैर्ब्वर्वापि पुटं यत्र प्रदीयते ।
तद्गोर्ब्वरपुटं प्रीक्तं रसभस्मप्रसिद्धये ॥

Govara putam.

It is an act of burning resorted to for the purpose of incineration of mercury by a fire made of husk or cowdung found powdered by the strokes of the feet of cows grazing in a pasturage.

भाण्डपुटम् ।

स्थूलभण्डे तुषापूरणे मध्ये मूषासमन्दिते ।
वह्निना विहिते पाके तद्भण्डपुटमुच्यते ॥

Bhanda putam.

It is a big vessel filled with husk, inside which is placed a crucible containing the article to be heated by the fire set upon the husks.

वालुकापुटम् ।

अधस्तादुपरिष्ठाञ्च क्रौञ्चिकाच्छाद्यते खलु ।
वालुकाभिः प्रतप्ताभिर्यत्र तद्वालुकापुटम् ॥

Baluka putam.

This is an act of heating an article contained in a crucible by means of heated sand placed on all sides of the crucible.

भूधरपुटम् ।

वह्निमित्रां चितौ सम्यङ् निखन्याद् द्व्यंशगुलादधः ।
उपरिष्ठात् पुटं यत्र पुटं तद्भूधराह्वयम् ॥

Bhudhara putam.

In this case, the crucible is heated by means of being placed two angulis below the surface of the earth in a pit covered with a fire made of cowdung cakes.

लावकपुटम् ।

ऊर्द्धु षोडशिकामात्रैस्तुषैर्वा गोर्वरैः पुटम् ।
यत्र तल्लावकार्ख्यं स्यात् सुमृदुद्रव्यसाधने ॥

Labaku putam.

It is an act of heating a very mild substance, by means of a fire made at the top of a samputam or crucible containing the substance, by husks, or powdered cowdung, sixteen times in weight of the substance cooked.

सप्तमोऽध्यायः ।

अथ परिभाषा ।

लवणानि षडुच्यन्ते सामुद्रं सैन्धवं विडम् ।
सौवर्चलं रोमकञ्च चुलिकालवणान्तथा ॥
क्षारत्रयं समाख्यातं यवसर्जिकटङ्गणम् ।
पलाशमुष्ककक्षारौ यवक्षारः सुवर्चिका ॥
तिलनालोद्भवः क्षारश्चैतानि क्षारपञ्चकम् ।
घृतं गुडो माक्षिकं च विज्ञेयं मधुरत्रयम् ॥

Definitions.

Salts—There are six kinds of salts, viz, samudram, saindhavam, bidam, sauvarchalam, romakam (or sambharam), and chulika (or nabasaram).

The three Ksharas—There are three kinds of ksharas viz, javakshara, sarjika kshara, and tankanam.

The five ksharas—They are as follows :—the kshara of palasha, that of ghantapatali ; java kshara, subarchika, and the kshara of tila nala.

The three madhus (sweets)—They are three, viz, ghritam (clarified butter), molasses, and honey.

रसतैलानि ।

कङ्गुणीतुम्बिनी घोषा करञ्जः श्रीफलोद्भवम् ।
कटुवार्त्ताकसिद्धार्थसोमराजीविभीतजम् ॥

अतसीजं महाकाली निम्बजं तिलजं तथा ।
 अपामार्गाद्देवदालीदन्तीतुम्बुरुविग्रहात् ॥
 अङ्गोलोन्मत्तभल्लातपलाशेभ्यस्तथैव च ।
 एतेभ्यस्तैलमादाय रसकर्मणि योजयेत् ॥

Oils, extracted from the seeds of the under-mentioned plants, are to be used in mercurial operations :—kanguni, katu-tumbi, ghosha, karanja, vilba, katu bartaku, (kantakari or brihati ?), rajika, somaraji, bibhitaki, atasi, mahakali, nimba, tila, apamarga, devadali, danti, tumburu, ankola ; dhatura, bhallataka, und palasha.

जम्बुकमण्डूकवसा वसा कच्छप्रसंभवा ।
 कर्कोटी शिशुमारकगोशूकरनरोद्भवा ॥
 अजोष्ट्रखरमेषाणां महिषस्य वसा तथा ।
 मूत्राणि हस्तिकरभमहिषीखरवाजिनाम् ।
 गोजावीनां स्त्रियः पुंसां पुष्पं बीजं तु योजयेत् ॥

The following are also used in mercurial operations :—fat of jackal, frog, tortoise, crab, porpoise, cow, hog, man, goat, camel, ass, ram, and buffalo ; urine of elephant, camel, she-buffalo, ass, horse, cow, goat, and ram ; menstrual discharge of women, and semen of men.

महिषाम्बुदधिचीर साभिघारं शकृद्हरसः ।
 तत् पञ्चमाहिषं ज्ञेयं तद्वच्छागलपञ्चकम् ॥

Pancha-mahisham—The urine, curd, milk, clarified butter, and juice of stool of a buffalo are called the pancha-mahisham. Similarly, chagala-panchakam are the same five different substances relating to a goat.

अम्लवर्गः ।

अम्लवेतसजम्बीरनिम्बुकबीजपूरकम् ।

चाङ्गेरीचनकाम्लकमम्लिकं कोलदाडिमम् ॥

अम्वष्टाश्चिञ्चापत्रं च नाराङ्ग रसपत्रिका ।

करमहं तथा चान्यदम्लवर्गः प्रकीर्तितः ॥

The following and other sour vegetables are called the Amlabarga (sour group);—amlabetasa, jambira, nimbu, bijapura, changeri, chanaka juice, tintidi, kola, darima, ambastha (hog plum), tintidi leaves, nagaranga, chukra leaves, and karamarda.

चणकाम्लश्च सर्वेषामेक एव प्रशस्यते ।

अम्लवेतसमेकं वा सर्वेषामुत्तमोत्तमम् ।

रसादीनां विशुद्धयर्थं द्रावणे जारणे हितम् ॥

Of all these, amlabetasa, and chanak leaf juice are the best. The former is especially suited to the requirements of purifying, liquefaction, and exhaustion of mercury.

अम्लपञ्चकम् ।

कोलदाडिमवृक्षाम्लचुल्लिकाचुक्रिकारसम् ।

पञ्चाम्लकं समुद्दिष्टं तच्चोक्तं चाम्लपञ्चकम् ॥

Juices of the following five sour materials are called the amlapanchakam—kola, darima, tintidi, chullika, and chukrika.

पञ्चमृत्तिकाः ।

इष्टिका गैरिका लोनं भष्मवल्मीकमृत्तिकाः ।

रसप्रयोगकुशलैः कीर्त्तिताः पञ्चमृत्तिकाः ॥

The following five kinds of earth are called the pancha mrittika, or mrit-panchakam ;—brick, red ochre, salt, ashes, and soil raised by white ants.

विषवर्गः ।

शृङ्गकं कालकूटं च वत्सनाभं सकृत्रिमम् ।

पित्तं च विषवर्गोऽयं स वरः परिकीर्त्तितः ॥

रसकर्म्मणि शस्तोऽयं तद्वन्धनविधावपि ।

अयुक्तया सेवितश्चायं मारयत्येव निश्चितम् ॥

The following poisons are called the bisha varga :—shringaka, kalakuta, batsanabha, kritrima (artificial), and biles. These are commendable in mercurial operations including the solidification of mercury. These poisons, if swallowed improperly, cause death.

उपविषवर्गः ।

लाङ्गली पिषमुष्टिश्च करवीरो जया तथा ।

नीलकः कनकोऽर्कश्च वर्गो ह्युपविषात्मकः ॥ *

* ६० पृष्ठं द्रष्टव्यम् ।

The following are called the upabishas :—(semi-poisons) :—langali, bishamushti, karabira, jaya (bhanga), nila, dhatura, and arka. *

दुग्धवर्गः ।

हस्त्यश्वनिता धेनुर्गद भी छागिकाविका ।

उष्ट्रिकोदुम्बराश्वत्थभानुन्यग्रोधतिल्वकम् ॥

दुग्धिका स्नूग्गणं चैतत् तथैवोत्तमकरिडका ।

एषां दुग्धैर्विनिर्दिष्टो दुग्धवर्गो रसादिषु ॥

Milks of the undermentioned animals and trees are called Dugdha barga. They are used in mercurial operations :—elephant, horse, cow, ass, goat, ram, camel; udumbara, aswattha, arka, bata, lodhra, dugdhika, snuhi, and uttamakandika (small dugdhika).

बिड्गणः ।

पारावतस्य चाषस्य कपोतस्य कलापिनः ।

गृध्रस्य कुक्कुटस्यापि विनिर्दिष्टो हि विड्गणः ।

शोधनं सर्व्वलोहानां पुटनाह्नपनात् खलु ॥

Stools of the undermentioned birds are called the bidgana. All the lohas (metals excepting mercury), are purified, if coated all over with these bidgana, and subjected to puta paka.

* For some other kinds of poisons and semi-poisons, see, page 91.

रक्तवर्गः ।

कुसुम्भं खदिरो लाक्षा मञ्जिष्ठा रक्तचन्दनम् ।
 अक्षी च बन्धुजीवश्च तथा कर्पूरगन्धिनी ।
 माक्षिकं चेति विज्ञयो रक्तवर्गोऽतिरञ्जनः ॥

The following are called Rakta barga (red group), and are used in preparing a red colour :—kusumbha, khadira, laksha, manjistha, rakta chandanam, akshi, bandhujiba, karpura-gandhini, and makshika.

पीतवर्गः ।

किंशुकः कर्णिकारश्च हरिद्राद्वितयं तथा ।
 पीतवर्गोऽयमादिष्टो रसराजस्य कर्मणि ॥

The undermentioned plants are called the Pita barga (yellow group). They are used in mercurial operations :—kinshuka, karnikara, haridra, and daru-haridra.

श्वेतवर्गः ।

तगरः कूटजः कुन्दो गुञ्जा जीवन्तिका तथा ।
 सिताम्भोरुहकन्दश्च श्वेतवर्ग उदाहृतः ॥

The undermentioned are called sveta barga (white group) :—tagara, kutaja, kunda, shveta-gunja, jivanti, and root of white lotus.

कृष्णवर्गः ।

कदली कारवल्ली च त्रिफला नीलिकानलः ।
 पङ्कः कासीसवालाभ्रं कृष्णवर्ग उदाहृतः ॥

The following are called, the krisna varga, (black group) :—kadali, karaballi, triphala, nilika, chitraka, pankā, kasisa, and tender mango fruits.

रक्तवर्गादिवर्गैश्च द्रव्यं तज्जारणात्मकम् ।
भावनीयं प्रयत्नेन तादृग् रागाप्तये खलु ॥

If it is intended to impart a particular colour to a metal, etc., the latter is to be subjected to bhavana, at the time of its exhaustion, with the juices of the corresponding group of plants. (such as ractabarga, etc.).

लोहकाठिन्यनाशनवर्गः ।

महिषीमेषशृङ्गोत्थः कलिङ्गो धवबीजयुक् ।
शशास्थीनि च वर्गोऽयं लोहकाठिन्यनाशनः ॥

The following articles are destroyers of the hardness of metals :—ashes of the horns of she-buffalo, and of ram, indrajava, dhava seeds, and bone of hare.

दुर्द्रावलोहादि द्रावणवर्गः ।

गुडगुग्गुलुगुञ्जाज्यसारघैष्टंकराण्वितैः ।
दुर्द्रावाखिललोहादेर्द्रावणाय गण्यो मतः ॥

The following serve to facilitate the smelting of those metals which are very difficult to smelt :—molasses, guggulu, gunja, clarified butter, honey, and tankanam.

चाराः सर्वे मसं हन्युरस्सं शोधनजारणम् ।
मान्यं विषाणि निघ्नन्ति स्नेह्यं स्नेहाः प्रकुर्वते ॥

The characteristic of ksharas is the destruction of impurities, that of amlas (sour non-mineral liquids) is purification and exhaustion, that of poison is the destruction of tardiness, and that of oil, fat, marrow, etc. is to soften and to remove coarseness.

शोधनीयगणः ।

काचटंकराशिप्राभिः शोधनीयो गणो मतः ।

सत्त्वानां बद्धसूतस्य लोहानां मलनाशनः ।

कापालिकगुणध्वंसी रसवादिभिरुच्यते ॥

Sodhaniya gana.

Kacha, tankana, and shipra are called sodhaniya gana. They are the destroyers of impurities in essences of metals, solidified mercury, and metals. They are also said to be the destroyers of what is called the "kapalika guna."

कज्ज्वली रसपङ्कौ ।

धातुभिर्गन्धकाद्यैश्च निद्रवैर्मर्दितो रसः ।

सुश्लक्ष्णः कज्ज्वलाभोऽसौ कज्ज्वलीत्यभिधीयते ।

सद्रवा मर्दिता सैव रसपङ्क इति स्मृतः ॥

Kajvali is the fine black powder obtained from rubbing of mercury with metals, sulphur, and other things, without the addition of any liquid substance. This powder, if rubbed with a liquid substance, becomes what is called a rasa-panka.

रसपिष्टी ।

अर्कांशतुल्याद् रसताप्यगन्धम्
निष्कार्द्व तुल्यात् तृदिशोऽभिखल्वे ।
अर्कातपे तीव्रतरे विमर्द्यम्
पिष्टी भवेत् सा नवनीतरूपा ॥

Rasa pisti.

Copper and an equal quantity of mercury, makshika, and sulphur—each even so little as half a niska or one triti in weight—turn into a paste-like substance, called *rasa pisti*, if rubbed together and kept in an intense heat of the sun.

खल्वे विमर्द्य गन्धेन दुग्धेन सह पारदम् ।
पेषणात् पिष्टतां याति सा पिष्टीति मता परैः ॥

The paste-like substance, prepared out of sulphur, milk, and mercury, rubbed together in a mortar, is also called *rasa-pisti*.

पातनपिष्टी ।

चतुर्थांशसुवर्णेन रसेन घृष्टपिष्टिका ।
भवेत् पातनपिष्टी सा रसस्योत्तमसिद्धिदा ॥

Patana pisti.

The paste-like substance, obtained by rubbing mercury with one fourth its weight of gold, is called *Patana pisti*. It is of much importance in mercurial operations.

स्वर्णकृष्टी तथा रौप्यकृष्टी ।

रूप्यं वा जातरूप्यं वा रसगन्धादिभिर्हृतम् ।
समुत्थितञ्च बहुशः सा कृष्टी हेमतारयोः ॥
कृष्टीं क्षिपेत् सुवर्णान्तर्न वर्णो हीयते तथा ।
स्वर्णकृष्ट्या कृतं बीजं रसस्य परिरञ्जनम् ॥

Swarna-kristi and Rupya-kristi.

Gold or silver, incinerated with mercury, sulphur, etc. and restored to its former condition for several times, is called swarna-kristi, or rupya-kristi, respectively. If swarna-kristi is mixed with gold, the latter does not undergo a loss of colour. The seed prepared out of swarna-kristi is a good dyer of mercury.

हेमरक्ती तथा ताररक्ती ।

ताम्रं तीक्ष्णसमायुक्तं द्रुतं निक्षिप्य भूरिशः ।
सगन्धलकुचद्रावे निर्गतं वरलोहकम् ॥
तेन रक्तीकृतं स्वर्णं हेमरक्तीत्युदाहृतम् ।
निक्षिप्ता सा द्रुते स्वर्णे वर्णोत्कर्षविधायिनी ॥
तारस्य रञ्जनी चापि बीजरागविधायिनी ।
एवमेव प्रकर्त्तव्या ताररक्ती मनोहरा ।
रञ्जनी खलु रूप्यस्य बीजानामपि रञ्जनी ॥

Copper, combined with an equal quantity of tikshna (steel), is to be smelted and immersed, for several times, in a solution of sulphur and the sour juice of a

lakucha fruit. The amalgam turns, by this process, into an excellent metal. Gold, reddened by being mixed with this amalgam, is called Hema-racti, which, if thrown upon smelting gold, improves the colour of the metal.

Tara racti, which improves the colour of silver and tara-bija (silver seed), is prepared similarly.

अथ परिमाणानि ।

तृटिः स्यादणुभिः षड् भिस्तैर्लिच्चा षड् भिरीरिता ।
 ताभिः षड्भिर्भवेद् यूकः षड् यूकास्तद् रजः स्मृतम् ॥
 षड् रजः सर्षपः प्रोक्तस्तैः षड् भिर्यव ईरितः ।
 एका गुञ्जा यवैः षड् भिर्निष्पावस्तु द्विगुञ्जकः ॥
 स्याद् गुञ्जात्रितयं वह्नौ द्वौ वह्नौ माष उच्यते ।
 द्वौ माषौ धरणं ते द्वे शाणनिष्ककलाः स्मृताः ॥
 शानश्च कथितष्टकं इति क्वचिद् विचक्षणैः ।
 निष्कद्वयं तु वटकः कोलो गद्यान एव सः ॥
 स्यात् कोलद्वितयं तोलः कर्षो निष्कचतुष्टयम् ।
 उदुम्बरं पाणितलं सुवर्णं कवड्ग्रहः ।
 अक्षं विडालपदकं शुक्तिः पाणितलद्वयम् ॥
 शुक्तिद्वयं पलं मुष्टिः प्रकुञ्चो विल्वमित्यपि ।
 पलद्वयं तु प्रसृतं तद्द्वयं कुड्वोऽञ्जलिः ।
 कुड्वौ माणिका तौ स्यात् प्रस्थो द्वे माणिके स्मृतः ॥

शरावोऽष्टपलं नूनं ज्ञेयमत्र विचक्षणैः ।
 प्रस्यद्वयं शुभं ते द्वे पात्रकं तदेवाढकम् ।
 तैश्चतुर्भिघटोन्मानलल्वणार्मणकुम्भकाः * ॥
 द्रोणस्य शब्दाः पर्यायाः पलानां शतकं तुला ।
 पलानां द्विसहस्रञ्च भार एकः प्रकीर्तितः ॥

Measures of weight.

6	anus (molecules)	make	one	triti.
6	tritis	"	"	liksha.
6	likshas	"	"	juka.
6	jukas	"	"	sarshapa (mustard seed.)
6	sarshapas	"	"	java (barley seed.)
6	javas	"	"	gunja or racti.
2	gunjas	"	"	nispava.
3	gunjas	"	"	balla.
2	ballas	"	"	masha.
2	mashas	"	"	dharana.
2	dharanas	"	"	niska, shana, kala, or tanka.
2	niskas	"	"	kola, bataka, or gadyana.
2	kolas	"	"	tola or karsha.
<i>(Synonyms of karsha are :—udumbara, panitala, subarna, kabaragraha, aksha, and bidalapadaka.)</i>				
2	karshas	make	one	shukti.
2	shuktis or 4 tolas	"	"	pala, musti, prakuncha, or vilba.

* नल्वन इति पाठस्तस्मै ।

2 palas	" "	prasrita.
2 prasritas	" "	kudaba or anjali.
2 kudabas	" "	manika or sharaba.
2 manikas	" "	prastha (64 tolas, or one seer.)
2 prasthas	" "	shubha.
2 shubhas	" "	adhaka or patra.
4 adhakas	" "	drona, ghata, unmana; rashi, lalvana, ar mana, or kumbha.
100 palas	" "	tula (400 tolas.)
2000 palas	" "	bhara.

द्रोणाभ्यां सूर्पो विज्ञेयश्चतुःषष्टिशरावकः ।

सूर्पाभ्याञ्च भवेद् द्रोणी बाही गोणी च सा स्मृता ।

द्रोणीचतुष्टयं खारी कथिता सूक्ष्मबुद्धिभिः ।

2 dronas	make one surpa.
2 surpas	" " droni, bahi, or goni.
4 dronis or gonis	" " khari.

अथ रसबन्धाः ।

पञ्चविंशतिसङ्ख्यकान् रसबन्धान् प्रचक्षते ।

येन येन हि चाञ्चल्यं दुर्ग्रहत्वं रसस्थजे ॥

हठारोटौ तदाभासः क्रियाहीनश्च पिष्टिका ।

क्षारः खोटश्च पोटश्च कल्कवद्धश्च कज्ज्वली ॥

सजीवश्चैव निर्जीवो निर्वीजश्च सवीजकः ।

शृङ्खलाद्रुतिबन्धौ च बालकश्च कुमारकः ॥

तरुणश्च तथा वृद्धो मूर्तिबन्धस्तथाऽपरः ।
 जलबन्धोऽग्निबन्धश्च सुसंस्कृताभिधस्तथा ॥
 महाबन्धाभिधश्चेति पञ्चविंशतिरीरिताः ।
 केचिद्वदन्ति षड् विंशो जलौकाबन्धसंज्ञकः ॥
 स तावन्नोप्यते देहे स्त्रीणां द्रावेऽतिशस्यते ।

The commentators have described twentyfive different ways of solidifying mercury.

They are as follows :—(1) hatha (2) arota (3) hatha bhasa and arotabhasa (4) kriyahina (5) pistika (6) kshara (7) khota (8) pota (9) kalka baddha (10) kajjali (11) sajiva (12) nirjiva (13) nirbija (14) sabija (15) shrinkhala (16) drutibandha (17) balaka (18) kumara (19) taruna (20) briddha (21) murtibandha (22) jalabandha (23) agnibandha (24) susanskrita and (25) mahabandha. Some add to the list a new item, viz. jalaukabandha (which will be dealt with in another volume).

हठो रसः स विज्ञेयः सम्यक्शुद्धिविवर्जितः ॥
 स सेवितो नृणां कुर्यात् मृत्युं वा व्याधिमुद्धतम् ।
 सुशोधितो रसः सम्यगारोट इति कथ्यते ॥
 स क्षेत्रीकरणे श्रेष्ठः शनैर्व्याधिविनाशकः ।
 पुटितो यो रसो याति योगं मुक्तः स्वभावताम् ।
 भावितो धातुमूलादैचराभासो गुणवैकृते ॥

Solidification of mercury, not properly purified, is what is called, "hatha bandha." This mercury gives

rise to death or a very serious disease. Solidification of mercury, properly purified, is what is meant by "arota bandha." This mercury is commendable for the purpose of internal use ; it cures diseases slowly. The mercury, though mixed with metals and drugs, does not allow itself to be solidified, but sublimates and assumes its original condition, when subjected to heating by means of putam, is called, "abhasa."

असंशोधितलोहादैथः साधितो यो रसोत्तमः ।
क्रियाहीनः स विज्ञेयो विक्रियां जात्यपथ्यतः ॥

The mercury which is solidified by being combined with metals, etc, not properly purified, is what is called "Kriyahina." The taking of such mercury, if followed by improper diets, gives rise to several after-affects of trouble-some nature.

तीव्रातपे गाढतरावमर्दात् पिष्टी भवेत् सा
नवनीतरूपा ।

स रसः पिष्टिकावद्धो दीपनः पाचनस्तराम् ॥

The mercury which assumes the appearance of butter by being rubbed steadily and exposed to the intense heat of the sun, is called "pishtika baddha." This mercury increases appetite and is a good digester of food.

शङ्खशुक्तिवराटार्थैर्योऽसौ संसाधितो रसः ।
क्षारवद्धः परं दीप्तिपुष्टिकृत् शूलनाशनः ॥

The mercury which is solidified by being combined with conchshell, oyster, and couri, duly purified and burnt to ashes, is called "kshara-baddha." It cures colic, and gives rise to appetite and nutrition.

बद्धो यः खोटतां यातो ध्मातो ध्मातः क्षयं व्रजेत् ।
खोटबद्धः स विज्ञेयः शीघ्रं सर्व्वगदापहः ॥

Solidified mercury, if it undergoes condensation and reduction in quantity every time it is heated, is called "Khota baddha." It cures diseases very soon.

द्रुतकज्ज्वलिका मोचापत्रके विपिटीकृता ।
स पोटः पर्यपटी सैव बालाद्यखिलरोगनुत् ॥

Kajjali, liquefied (by being heated) and put upon a plantain leaf (placed upon cowdung), and then pressed lightly (by means of another piece of plantain leaf containing cowdung), is called pota or parpati, and is the curer of all diseases, especially of children.

स्वेदायैः साधितः सूतः पंकत्वं समुपागतः ।
कल्कबद्धः स विज्ञेयो योगोक्तफलदायकः ॥

Mercury, if it assumes the appearance of mud, by being subjected to heat, etc. and combined with herbs, made into a paste, is called "Kalka-baddha." This mercury partakes of the properties of the herbs with which it is combined.

कज्ज्वली रसगन्धोत्था सुश्लक्षणा कज्ज्वलोपमा ।
तत्तद्दयोगेन संयुक्ता कज्ज्वलीवद्ध उच्यते ॥

The black sulphide of mercury, prepared by mercury and sulphur, finely powdered and rubbed together, is called "Kajjali baddha."

भस्मीकृतो गच्छति वह्नियोगाद्
रसः सजीवः स खलु प्रदिष्टः ।
संसेवितोऽसौ न करोति भस्म
कार्यं जराव्याधिविनाशनञ्च ॥

If mercury, in course of the operations performed for its incineration, sublimates, by being subjected to heat, and comes out of the crucible, it is called, "sajiba baddha." It does not possess the properties of incinerated mercury, and is not considered efficacious in curing senility and diseases.

जीर्णाभ्रको वा परिजीर्णगन्धो
भस्मीकृतश्चाखिललोहमौलिः ।
निर्जीवनामा स हि भस्मराजः
निःशेषरोगान् विनिहन्ति वेगात् ॥

Mercury, incinerated after having been made to swallow mica and sulphur, becomes superior to all other metals, and is called, "Nirjiba baddha." It cures diseases immediately.

रसस्तु पादांशसुवर्णाजीर्णः पिष्टीकृतो गन्धक-
योगतश्च ।
तुल्यांशगन्धैः पुटितः क्रमेण त्रिर्वीजनामा
सकलामयन्नः ॥

Mercury, incinerated by means of putapaka after having been made to swallow one fourth its quantity of gold, and made into a lump by being rubbed with an equal quantity of sulphur, is called "Nirbija baddha." It cures all sorts of diseases.

पिष्टीकृतैरभ्रकसत्त्वहेमतारार्ककान्तैः

परिजारितो यः ।

हतस्ततः षड्गुणगन्धकेन स बीजबद्धो

विपुलप्रभावः ॥

The mercury which is exhausted with the essence of mica, gold, silver, copper, and kanta iron, all rubbed together, and incinerated with six times its weight of sulphur, is called, "bijabaddha." It is of supreme strength.

वज्रादिनिहतः सूतो हतः सूतः समोऽपरः ।

शृङ्खलाबद्धसूतस्तु देहलोहविधायकः ॥

विचित्रं तत्प्रभावञ्च सवेगां व्याप्तिशीलताम् ।

वर्णयितुं न पारगो कोऽपि महेश्वराद् विना ॥

Mercury, killed with diamond, etc., and combined with an equal quantity of mercury killed otherwise, is called "Shrinkhala baddha." It imparts hardness to the body. None but Mahadeva can describe the strange efficaciousness of this mercury, and the power of its being quickly assimilated in the system.

युक्तोऽपि बाह्यद्रुतिभिश्च सूतो
 बद्धं गतो वा भसितस्वरूपः ।
 स राजिकापादमितो निहन्ति
 दुःसाध्यरोगान् द्रुतिबद्धनामा ॥

Mercury, which is solidified, or subsequently reduced to ashes, after having been combined with metals which undergo external liquefaction or which turn into a liquid while kept close to but outside mercury, is called "drutibaddha", and can cure difficult diseases, if taken in doses of a quarter of a rajika (equal in weight to a mustard seed).

समाभ्रजीर्णः शिवजस्तु बालः
 संसेवितो योगयुतो जवेन ।
 रसायनो भाविगदापहश्च
 सोपद्रवारिष्टगदान्निहन्ति ॥

Mercury, exhausted with an equal quantity of mica, and then reduced to ashes, is called "balabaddha." If taken with the proper anupanam or accompaniment, it can cure and prevent all sorts of diseases.

हरोद्भवो यो द्वियुगाभ्रजीर्णः
 स स्यात् कुमारो मिततन्दुलोऽसौ ।
 त्रिसप्तत्रैः खलु पापयोग
 संघातघाती च रसायनञ्च ॥

Mercury, exhausted with double its quantity of mica and then reduced to ashes, is called 'kumara baddha'. It can cure, in three weeks, all the diseases due to serious vices (*e. g.* leprosy), and can also prevent the occurrence of diseases.

चतुर्गुणव्योमकृताशनोऽसौ
 रसायनाग्रथस्तरुणाभिधानः ।
 स सप्तरात्रात् सकलामयघ्नो
 रसायनो वीर्यवत्प्रदाता ॥

The mercury which has swallowed four times its weight of mica, and is then reduced to ashes, is the best of all rasayanas (medicines which cure and prevent senility and diseases). It is called tarunabaddha.' It can cure, in a week, all sorts of diseases, and increases strength and vitality.

यस्याभ्रकः षड् गुणितो हि जीर्णः
 प्राप्ताग्निस्त्रयः स हि वृद्धनामा ।
 देहे च लोहे च नियोजनीयः
 शिवाहते कोऽस्य गुणान् प्रवक्ति ॥

The mercury, which has swallowed six times its weight of mica, and is then reduced to ashes, is called 'briddha baddha.' It is applicable in curing diseases as well as in the incineration of metals.

यो दिव्यमूलिकाभिश्च कृतोऽत्यग्निसहो रसः ।
 विनाभ्रजारणात् स स्यात् मूर्तिबद्धो महारसः ॥
 अयं हि जाय्यमानस्तु नाग्निना क्षीयते रसः ।
 योजितः सर्वरोगेषु निरुपमफलप्रदः ॥

The mercury which is enabled, by means of being rubbed with controlling herbs of amazing properties, to stand fire without being exhausted with mica, is called 'murtibaddha.' This mercury is to be duly exhausted, and used in all sorts of diseases with incomparable success. It does not undergo any diminution in size, if placed upon fire.

शिलातोऽमृत्खैस्तोयैर्बद्धोऽसौ जलबद्धकः ।
 स जरारोगघृत्युग्नः कल्पोक्तफलदायकः ॥

The mercury which is solidified by means of ice, etc. is called 'jababaddha.' It is a destroyer of senility, diseases, and death. It can be made to produce any effect desired.

केवलो योगयुक्तो वा ध्मातः स्याद् गुटिकाकृतिः ।
 अक्षीणश्चाग्निबद्धोऽसौ खेचरत्वादिकृत् स हि ॥

When mercury alone, or in conjunction with some thing else, is solidified, and undergoes no diminution, when subjected to heat, it is called 'agni-baddha', and serves to endow the user with the power of flying in the air.

हेम्ना वा रजतेन वा स हि परो ध्मातो व्रजत्येकता-
मक्षीणो निचितो गुरुश्च गुटिकाकारोऽति

दीर्घोज्ज्वलः ।

चूर्णत्वं पटुवत् प्रयाति निहतो घृष्टो न मुञ्चेन्मलं
निर्व्वन्धो द्रवति क्षणात् स हि महाबन्धाभिधानो रसः ॥

If mercury, when heated with gold or silver, becomes solidified, amalgamated, heavy, elongated, and bright, without undergoing any diminution, it is called 'Mahabaddha'. When killed, it can be reduced to powder like salt ; when rubbed, it does not part with any rust ; if not properly solidified, it turns into a liquid immediately.

अष्टमोऽध्यायः ।

अथ अतिरिक्ताः वेधन प्रक्रियाः ।

स्वर्णकरणम् ।

ब्रह्मवृक्षस्य काष्ठेन नागमादाय मारयेत् ।
पुनः खर्परकं नीत्वा द्वयमेकत्र चूर्णयेत् ॥
तेन मूषा वटक्षीरात् क्रियते गाढवर्तुला ।
पलं पलं भवेत् पूर्वं पलमेको रसो भवेत् ॥
तस्यां सूतं समारोप्य वालुकायन्त्रमध्यमम् ।
कारयेत् मूषिकां गाढामेकादशगुणं तदा ॥
गन्धकं जारयेत् सूक्ष्मीकृतं तत् पारदे शनैः ।
उत्तार्य मूषिकां यन्त्राच्छीतलां कारयेत्ततः ॥
अतिरक्तप्रभा मूषा चूर्णिता सकला भृशम् ।
द्विसप्तत्यंशके देया एको भागश्च सूतकात् ॥
चन्द्रसूर्यौ * द्विभागौ च काञ्चनं दशवर्णिकम् ।
अवश्यं जायते चन्द्रं निर्दोषं दुःखनाशनम् ॥

CHAPTER VIII.

Making of gold.

Lead is to be incinerated with the wood of brahma tree, mixed with kharpara, and powdered together. This powder is then to be rubbed with the

* चन्द्रसूर्यं द्विभागञ्च इत्यपि पाठः कल्पनीयः ।

तथाहि रसरत्नसमुच्चये,—भागा षोडश तारस्य तथा द्वादश भास्वतः ।

एकत्रावर्तितास्तेन चन्द्रार्कमपि कथ्यते ॥

milk of banian and made into a crucible, dense and cylindrical. The quantity of the first two, viz, lead and Kharpara, is one palam each. One palam of mercury is to be put into the crucible, kept inside a baluka jantram. Sulphur, eleven times in weight of mercury, and very finely powdered, is to be swallowed by the mercury, by gradual mixture and rubbing. The crucible is then to be taken out of the jantram and cooled. This will be found very red. This is then to be finely powdered. Seventy two parts of this powder, one part of mercury ; and one part each of silver and copper, are to be combined. * The combination may result in gold, ten sixteenth parts pure. Substitution of pure silver for copper, may have the effect of producing pure gold.

स्वर्णकरणम् ।

फरवाहस्य काष्ठेन विभीतस्याऽथवा करी ।
 अथ दारुहरिद्राया मर्दयते प्रहरद्वयम् ॥
 किंशुकस्य रसेनादौ कन्यकाया रसैः पुनः ।
 पीतकासीसकस्यापि जलेनायं विघृष्यते ॥
 नागे चाष्टोत्तरशतं भावनानां प्रदीयते ।
 पुटांस्तथाविधान्दद्यात्सुदृढांश्च गरीयसः ॥
 रक्तः सिन्दूरसंकाशो म्रियतेऽसौ करी ध्रुवम् ।
 त्रिंशदंशेन ताम्रस्य तं नागं योजयेत्परम् ॥

* According to another version, seventy two parts of the powder, one part of mercury, two parts of a compound made of sixteen parts of silver and twelve parts of copper.

तत्ताम्रं जायते तारं ताम्रं तारादपानयेत् ।
 तत्तारं जायते रम्यमष्टवर्णिकमुत्तमम् ॥
 तच्च तेन समं देयं काञ्चनेन च काञ्चनम् ।
 वर्णयुग्ममपास्यैतज्जायते सर्वकामदम् ॥

Making of gold.

Lead is to be rubbed for six hours with the wood of either of these two, viz, pharabaha and bibhitaki, and with daruharidra. This is then to be rubbed with the juice of kinshuka, and burnt by putapaka. This is next to be rubbed with the juice of kanya and again burnt by putapaka. This is again to be rubbed with a solution of yellow kashisa and again burnt by putapaka. The lead is thus to be subjected to bhabana and putapaka for hundred and eight times each. The lead will thus be reduced to ashes of a very deep red colour. The ashes are to be mixed with thirty times their weight of copper, which will be transformed into silver, containing a little copper. This copper will have to be separated from the silver, which will have to be again mixed with the ashes of lead. This will result in the silver turning into gold twelve carats fine.

रौप्यकरणम् ।

चत्वारः स्वर्जिकाभागा यवद्वारस्तथा पुनः ।
 सौभाग्यं च तथा धृत्वा श्वेताम्रं चूर्णितं द्वयम् ॥
 शिलाद्वयं भवेत्तत्र सर्वं ग्राह्यं सुशोभनम् ।
 काकमाचीरसस्यांतर्दीयते सर्वमेव तत् ॥

तस्य सिल्लवष्टाणि कृतसूक्ष्माणि वै पलम् ।
 तापंतापं ददेतास्मिन् काकमाचीरसे भृशम् ॥
 एकविंशतिवारांश्च बह्वौ देयानि चात्र च ।
 एवं शुभ्राणि जायन्ते रूप्यतुल्यान्यसंशयम् ॥
 आरं तारं समं कृत्वा मृदुबगं नियोजयेत् ।
 एकादशविभागेन भवेत्तारं निरामयम् ॥
 एषा राजवती विद्या पुत्रस्यापि न कथ्यते ॥

Manufacturing of silver.

Four parts of swarji, four parts of jabakshara, four parts of borax, two parts of powdered white mica, and two parts of manas-shila—all of these are to be rubbed together and immersed in the juice of kakamachi. One part of very finely wrought brass leaf is to be heated mildly and immersed in the solution, for twenty one times. The foils will thus grow undoubtedly white like silver. They will have to be mixed with an equal quantity of real silver and eleven times their weight of mild tin. The product will be pure silver.

स्वर्णकरणम् ।

दशटकमितो गन्धो घृतेन सह गालितः ।
 कन्यकाद्रक्समध्ये तं निक्षिपेद्धारपञ्चकम् ॥
 अस्मिन् शुद्धे दृढे गन्धे त्रिटङ्कं नवसारकम् ।
 मरिचानि च पिष्टानि पञ्चतोलानि वारिणि ॥

कृत्वैकत्रास्य भागैकं हीनवर्णं च कांचने ।
दीयते तोलके चैके वर्णमेवं विवर्धते ॥

Making of gold.

The following are to be incinerated separately : mineral tutthaka and rasaka, one sixteenth of a tola each, and manas-sila, one eighth of a tola. All these three things are to be mixed together and combined with one tola of gold of an inferior colour, with the result that the colour of the gold will be improved.

रोप्यकरणम् ।

भागद्वादशकं तीक्ष्णं चूर्णं बद्धस्य वै त्रयः ।
तथा नागस्य कर्तव्या त्रयो भागाश्च तालकम् ॥
तण्डुलीयस्य तोयेन मर्दनीयं दृढं ततः ।
अन्धमूषागतं ध्मातं दत्त्वा टङ्कणकं भृशम् ॥
प्रकटे च पुनर्मूषे तद्वलं जायते वरम् ।
समं तारेण कर्तव्यमुत्तमं तद्भविष्यति ॥

Making of silver.

Twelve parts of powdered steel, and three parts each of powdered banga (tin), powdered sisaka (lead), and powdered haritala—are to be rubbed steadily with the juice of tanduliyaka, and heated in an andha musha, with tankanam applied gradually. On breaking open the crucible, the metal will be found to be excellent. If combined with an equal quantity of silver, it will turn to be the best silver.

रौप्यकरणम् ।

पारदं तालकं श्वेतं धान्याभ्रं टंकणं नवम् ।
 शृंगिकं च विषं वंगं मृतं टंकद्वयं द्वयम् ॥
 अर्कसेहुण्डदुग्धेन मर्दयेच्च दिनत्रयम् ।
 चनकमानतो वटी कर्त्तव्याथ प्रयत्नतः ॥
 त्रयमेव रसं पश्चात् पुनरेवं मनःशिलाम् ॥
 द्वयमत्रापि गृह्णीयात् स्वर्जिकाटंककद्वयम् ।
 धत्तूरस्य रसेनैतन् मर्दनीयं चतुष्टयम् ॥
 त्रिदिनं शोषयेद् गाढं पुनस्ताम्रं समं नयेत् ।
 दशटंकमितं शुद्धं कृतपत्रं प्रभायुतम् ॥
 अन्धमूषे परिक्षिप्य तच्चतुष्टयमौषधम् ।
 अर्धमर्धं च दत्त्वा तद् गालयेद् गाढमेव तत् ।
 दलं निष्पद्यते श्वेतं पुनः पूर्वं कृताश्च ताः ।
 वटिका नूतनाः सन्ति तासां मध्ये नयेदथ ॥
 भागमेकं पञ्चदशं दलं स्यान्निर्मलं शुभम् ।
 कृत्वैकत्र च मूषायां गालयेज्जलसन्निभम् ॥
 पञ्चामृतं च तन्मध्ये दीयते सुन्दरं भवेत् ।
 दलमेतत् पुनर्भागा अष्टौ तारस्य सुन्दरः ॥
 एक एव भवेन् मूषे गालनीयं यथा पुरा ।
 पुनर्द्वितीयवेलायां नवभागं दलं भवेत् ॥

एकभागं भवेत्तारं मूषिकामध्यगं द्वयम् ।
 दण्डेन करवीरस्य सूक्ष्मेण चालयते शनैः ॥
 गालयते च तथा चैनं सर्वं भवति रूष्यकम् ।
 एवं निष्पद्यते तारं तत्तारकसमोज्ज्वलम् ॥

Making of Silver.

Mercury, haritalam, white mica finely powdered, fresh tankanam, shringa poison, incinerated tin—two tankas each, are to be rubbed together for three days, with the milks of arka, and sehundu, and made into pills of the size of a chanakam. Three tankas of mercury, an equal quantity of manas-shila, and two tankas of swarjika, with one of the pills referred to above, are to be rubbed with the juice of dhuthura for three days. Dried copper foils, well purified, and equal in quantity to the amalgam, viz. 10 tankas, are to be put into a blind crucible and smelted with the amalgam, half of its quantity being put at a time. This will turn the copper foils white. This metal will be purer, if smelted again with one fifteenth part of its weight of the pills referred to at the beginning and a little of ghee, curd, milk, sugar, and honey. Eight parts of the metal thus produced and one part of fine silver are to be smelted, as before, in a crucible. Nine parts of this product and one part of pure silver are to be again smelted and turned, all the while the smelting goes on, with a fine rod made of karabira. The product will be pure silver, as bright as stars

स्वर्णकरणम् ।

लोहचूर्णमतिश्लुचणं पुट्यते कन्यकाद्रवैः ।
 त्रिवेलमतियत्नेन चूर्णं पीतारुणं भवेत् ॥
 पुनर्माक्षिकमानीय सैन्धवेनाम्लसंयुतम् ।
 पुट्यते त्रिपुटं यावदेकीकृत्य द्वयं पुनः ॥
 तारं ताम्रं पुनर्नीत्वा द्वयमेतद् द्वयं च तत् ।
 समं चतुष्टयं कुर्वाद् धाम्यते सकलं च तत् ॥
 किञ्चिन्नागं पुनः किञ्चिद् दत्त्वा दत्त्वा चणं चणो ।
 भवेत्तत्तारशोषं यद् भवेत् तत्किञ्चनाधिकम् ॥
 पीतं षड्वर्णिकं तारं योजयेद् दशकं पुनः ।
 वर्णयुग्मे विहायाथ वर्णिकाष्टकमुत्तमम् ॥
 हाटकं जायतेऽत्यर्थं सर्वकर्मप्रसाधनम् ॥

Making of Gold.

Iron, very finely powdered, is to be mixed with the juice of kanya, and burnt very carefully for three times, by means of putapaka. The powder will thus turn yellowish red. Again, powdered makshika is to be mixed with rock salt and some sour juice, and subjected to putapaka for three times. These two kinds of powders are to be mixed together in equal quantities. To these will have to be added powders of silver and copper, each equal in quantity to each of the above mentioned powders, so that the amalgam contains an equal quantity of the four ingredients, viz, iron, makshika, silver, and copper. All of these

are to be heated together with a little of lead being put into the crucible, every now and then, so long as the heating continues. The heat will have to be applied so long as the silver does not disappear altogether—nay, up to a little while after that. The product is a yellow metal containing gold $\frac{6}{18}$ parts fine. Add to this, gold $\frac{1}{8}$ parts fine, the product being gold of an excellent quality.

स्वर्णकरणम् ।

गन्धकं दरदं लौहचूर्णं चापि मनःशिला ।
 अम्लेन मर्दयेत् त्रीणि दिनानि सकलं च तत् ॥
 कटाहे भर्जयेच्चैव पश्चात् सूक्ष्मम् विधाय तत् ।
 शोषणीयं पुनस्तापे पश्चात् तत् काचकूपके ॥
 निक्षिप्य बालुकायन्त्रे यावद् यामत्रयं भवेत् ।
 तावदग्निं च कुर्वीत दृढं तीक्ष्णं शनैः शनैः ॥
 अथ मूषे क्षिपेत् तारं गलिते तत्र किञ्चन ।
 दीयते ध्मायते मन्दं मन्दं तत् सत्तुमुत्तमम् ॥
 पीतं तज्जायते तारमष्टवर्णं न संशयः ।
 अपरं हेम तत्रापि मेलनीयं महोत्तमम् ।
 वर्णिकाद्वितयं हित्वा जायते कनकं नवम् ॥

Making of Gold.

Gandhaka, hingula, powdered iron, and manas-shila,—all these are to be rubbed for three days with some sour juice. They are then to be fried in a

cauldron, dried, powdered finely, and then put into a glass bottle. This is then to be heated in Baluka jantram, for nine hours, by a strong fire. A little of silver is then to be put into a crucible and smelted. A little of the compound, prepared in the Baluka jantram, is then to be put into the smelted silver, with the result that the silver turns into gold $\frac{8}{10}$ parts fine. An equal quantity of pure gold, mixed with this substance, makes the whole thing absolutely pure gold.

रौप्यकरणम् ।

तालेन मारयेद्द्वङ्गपत्रं सूक्ष्मं विधाय तत् ।
 तेन बंगेन सत्तारपत्रं श्लुच्छणं च मारयेत् ॥
 एकेनापि पुटेनैव म्रियते तारमुत्तमम् ।
 टंकैकं तालसत्त्वाच्च तारस्य च मृतस्य च ॥
 एकमत्र भवेदत्र पारदो द्वयमेव च ।
 एकत्र पिष्टितं कृत्वा गोलं कुर्यात्ततः परम् ॥
 वर्तुलं निक्षिपेत्तं च सुपिष्टे माषचूर्णके ।
 निवेश्य गुटिकाकारेऽप्यतसीतैलयाचितम् ॥
 तेन सा पच्यमानापि पिष्टी कृष्णा भविष्यति ।
 सैधवेनार्कपयसा ताम्रपत्रं प्रक्षिप्यते ॥
 अतिसूक्ष्मं पुनः पत्रं निर्गुण्डीरसमध्यगम् ।
 क्षिप्यते तावदेवैतद्याबच्छुभ्रं भविष्यति ॥

दशटकमिते भागे तारे पिष्टी निधीयते ।
 समतारेण कर्त्तव्यं ताम्रपत्रं च शोषितम् ॥
 एवमेतद्वलं जातं जातरूपं महान्द्रुतम् ।

Making of silver.

Fine foils of tin are to be incinerated with haritalam. The ashes, so produced, are to be used in incinerating pure and finely wrought silver foils, the incineration being effected by means of one putam. Take one tanka of the essence of haritalam, one tanka of incinerated silver (as referred to above), and two tankas of mercury—all of these are to be rubbed together and formed into a ball, which is to be coated with a paste made of masha gram (a kind of bean), and boiled in atasi (linseed) oil. The ball will thus turn black. Pure and very fine copper foils are then to be coated with saindhava and milk of arka, and kept immersed in the juice of nirgundi, until they turn white. Ten tankas of pure silver and ten tankas of the copper foil are to be smelted together with the black ball referred to above, the product being pure silver.

रौप्यकरणम् ।

तालकं षट्पलं नीत्वा कुलत्थकाथमध्यगम् ।
 स्वेदयेत् त्रिदिनं यावत् सूक्ष्मं कृत्वाऽथ खल्वके ॥
 दशटकमितान्यादौ भल्लातकफलानि च ।
 परण्डस्य च बीजानि दत्त्वा सर्वं विचूर्णयेत् ॥

अर्कसेदुगडदुग्धस्य तिस्रः पश्चाच्च भावनाः ।
 आविकस्याथ मत्स्यस्य वसां दत्ता विमर्दयेत् ॥
 शोषयित्वा पुनः कुर्यात् सुदृढे काचकूपके ।
 चुल्लिकायां तदारोप्य मुखमुद्धाटय पाचयेत् ॥
 धूमं निःसारयेत्तावद्यावद्यामद्रूपं त्रयम् ।
 मुखं विमुच्यते पश्चात्खटिन्या छिद्रवर्जितम् ॥
 याः क्षान्तिश्चष्टतं वह्निर्देयो निरन्तरम् ।
 कूपिकाया मुखे सर्वं सत्त्वमागत्य तिष्ठति ॥
 पुनः सत्त्वं च गृह्णीयात्पुनः कुर्यात्तथाविधम् ।
 रसभस्म तृतीयांशं तस्य सत्त्वस्य दीयते ॥
 अथावशिष्टं यत्किट्टं तालसत्त्वस्य किञ्चन ।
 तदधो दीयते किट्टं किञ्चित्सत्त्वेन वै समम् ॥
 पुनर्यामाष्टकं दद्याद्बहिः तत्रैकमानसः ।
 नोर्ध्वं नाधः स्थितं सत्त्वमन्तरालस्थितं नयेत् ॥
 इतसूक्ष्मे शुभे तारपत्रे सत्त्वं समं चिपेत् ।
 मूपिकाया मधश्चोर्ध्वं श्वेतकाचांतरालगम् ॥
 ज्जायते तावदन्ध्रायां यथा स्याद्गोलकोत्तमः ।
 तत्सत्त्वं तस्य मध्यस्थं गृह्यते शुक्रसन्निभम् ॥
 सतारमेकपिण्डस्थं तदादाय महोत्तमम् ।
 द्वादशांशं भवेदेव पिच्छलं शुद्धतारकम् ॥

Making of silver.

Six palas of haritala are to be boiled for three days in a decoction of kulattha ; and rubbed very fine in a mortar. Bhallataka fruits and castor seeds, ten tankas in weight each, are also to be finely powdered. These three things, viz. haritala, bhallataka fruits, and castor seeds, are to be rubbed together, and subjected to bhabana, for three times, with the milks of arka and sehundu, respectively. The compound is then to be rubbed with the fat of ram and fish. When dried, the powder will have to be put into a very strong glass bottle, and heated without closing the mouth of the bottle. Smoke is expected to come out of the bottle, after six to nine hours of heating. The mouth of the bottle is then to be closed hermetically, by means of a piece of chalk—the heating is to last continuously for thirty six hours, without any interruption.

At the mouth of the bottle will be found deposited the essence of the substance thus heated, which will have to be taken out very carefully. The remains of the substance are to be heated again in the aforesaid way, which will result in the extraction of some more essence. A part of this essence, with one third its quantity of incinerated mercury, is to be put into another glass bottle, below which is to be put remains of the substance mixed with a little of the essence. Heat is then to be applied again for twenty four hours, after which is to be taken out the essence deposited, neither at the top nor at the bottom, but at the central portion of the bottle. This essence, with an equal quantity of very fine silver foils, is to be

heated in a blind crucible, with lairs of white glass put above and below them. When sufficiently heated, the contents of the bottle will smelt into a ball-like substance having the appearance of semen. This will have to be taken out and heated with twelve times its weight of brass, which will turn into pure silver.

स्वर्णकरणम् ।

निंबूरसेन सङ्गन्धं भावयेच्छुद्धमातपे ।
 एकविंशन्मिताभिस्तं भावनाभिः समन्ततः ॥
 कुक्कुटांडद्रवेणामुं चतुर्बलं विभावयेत् ।
 अथ ताम्रस्य पत्राणि सुसूक्ष्माणि दृढानि च ॥
 कर्तव्यानि च गन्धेन तेन लेप्यानि तानि च ।
 पुटनीयानि तान्यग्नौ निधाप्यन्ते पुनर्जले ॥
 बिलेप्याथ बिलेप्याथ गन्धकेन पुनः पुनः ।
 सप्तवेलमिदं कर्म कृत्वा कृत्वा पुनः पुनः ॥
 तानि विध्माप्य वै गाढं गृह्यते ताम्रमुत्तमम् ।
 अरुणादित्यसंकाशं निर्दोषं तारमुद्धरेत् ॥
 तारे टंकत्रये देयं टंकमेकं शुभं रविः ।
 पुटयते ताम्रमेवैतद्यावत्ताम्रक्षयो भवेत् ॥
 घर्षितं च पुनस्ताम्रं दृश्यते सप्तवर्णिकम् ।
 तत्र हेम द्वादशांशमन्यन्मेलय चोत्तमम् ।
 हेम संजायते सर्वं रम्यं चैव सुखप्रदम् ॥

Making of gold.

Purified sulphur is to be subjected to bhavana with lime juice for twenty one times, and with hen's egg for four times. Very fine and strong copper foils are then to be coated all over with that sulphur. These are next to be burnt by putapaka and immersed in water. They are again to be coated with the sulphur, burnt and immersed in the same way, for seventy times altogether. Three parts of pure silver and one part of this copper are to be burnt together, by putapaka, which is to be carried on till the copper disappears altogether. The product is gold $\frac{7}{8}$ parts fine. With this is to be mixed pure gold $\frac{1}{8}$ parts fine. The compound will turn to be pure gold.

सर्पं वपु वृद्धिकरणम् ।

अभ्रसत्त्वं समादाय तत्र तोम्रं च तत्समम् ।
 ध्मायते तद्द्वयं पश्चाद् यावदैक्यं द्वयं व्रजेत् ॥
 सत्त्वं तत् केवलं नीत्वा विना ताम्रो ण पीतवत् ।
 अतुलं पीतभासं यद्भागमेकं तदा नयेत् ॥
 दशवर्णं च यद्धेम पञ्चविंशतिभागिकम् ।
 गालयित्वाैकतः कुर्यात् सत्त्वहेमद्वयं पुनः ॥
 वर्णैकस्य भवेद् वृद्धिः सत्त्वं तद्द्वयं तेऽधिकम् ॥

Augmenting the colour of gold.

Essence of mica and an equal quantity of copper are to be smelted together and compounded. An essence is to be extracted in the usual way out of

this compound. This essence is wonderfully yellow. Twenty five parts of gold, ten sixteenth parts fine, and one part of this essence are to be smelted together, with the result that the whole compound will turn to be gold $\frac{11}{16}$ parts fine. Further addition of every one part of the aforesaid essence will result in the enhancement of the colour of the gold by $\frac{1}{16}$ part.

स्वर्णकरणम् ।

शिलामाक्षिकनागाश्च कर्पूरमणिकाः समाः ।
 राजावर्त्तं पुराणस्य लोहस्य तनुजं मलम् ॥
 देहस्थमरुजं प्राह्यं लोहे लग्नं च यद् भवेत् ।
 दरदं स्वर्परं तुत्थं पीतकाशीशमर्दितम् ॥
 मूषायां धमनं कुर्यात् सुदृढं गन्धकं क्षिपेत् ।
 षड्गुणं जारयेन् मूषे शनैरेनं शनैः शनैः ॥
 उपर्यन्या भवेन् मूषाऽप्येवं जारणपद्धतिः ।
 अष्टवर्णं सुवर्णं तद्वरसगुञ्जा प्रदीयते ॥
 एकतोलेऽपि ताम्रे तद्गालिते शीघ्रमुत्तमम् ।
 वर्धते कनकं सत्यं महावर्णचतुष्टयम् ॥
 भोगाय स्वर्णकार्यं तु वंशनाशाय कल्पते ।
 कार्यमेतत् परित्याज्यं दारिद्रेथ हि समाचरेत् ॥
 पूजयेद् भैरवं तदा सततं गुरुमर्चयेत् ।
 सततं योगिनीवृन्दं ब्रह्मचर्येण नित्यशः ।
 गन्धपुष्पादिनैवेद्यतर्पणैर्भक्तिभावतः ॥

Making of gold.

Manas-shila, makshika, sisaka (lead), karpura-mani (camphor gem), rajabarta, rust of iron of a very long standing, cinnabar, kharpara, tuttham, and yellow kasisa—all of these are to be rubbed together and heated steadily in a crucible, with sulphur being put into it, six times in weight of each of the other ingredients. The crucible is to be put inside another crucible, and the superfluous sulphur burnt gradually. One rati of the compound, thus prepared, is to be smelted with one tola of copper, the result being gold $\frac{1}{8}$ parts fine. *

रौप्यकरणम् ।

मण्डूरं खर्परं शुद्धं दशतोलमितं पुरा ।
 भाव्यते खरमूत्रेण भावना एकविंशतिः ॥
 शिला नवसारं चैव पृथक् तोलमितौ च तौ ।
 संमिश्रय महिषीदुग्धभावितौ तौ यथा पुरा ॥
 सेहूंगडपयसा चैव भावितोऽसौ यथा भवेत् ।
 अथ सूतं समादाय त्रितोलं च मनःशिला ॥
 विमर्द्य खल्वके दत्त्वा भाजने निक्षिपेद् द्वयम् ।
 कृतकज्ज्वलिकां गाढां ताम्रचर्कीं तदुपरि ॥
 दत्त्वापि तदधस्ताच्च मध्ये वह्निं प्रदापयेत् ।
 द्वियामं यावदेव स्यात् ततः पर्पटिकां नयेत् ॥

* Preparation of gold is ordinarily prohibited. It is only for the bare subsistence of life that one may have recourse to it.

अथाष्टतोलमादाय तालसत्त्वं मनोहरम् ।
 एकत्र क्रियते सद्यः सुदृढं निम्बुकाम्बुना ॥
 दिनसप्तकपर्यन्तं कुर्यात् तेनातिघर्षणम् ।
 ह्रस्वनागार्जुनीपत्रं समनागार्जुनीजले ॥
 तथा विघृष्यते पश्चात् घृष्टं सर्वं पुरा कृतम् ।
 काचकुम्भे निधायाऽथ वह्निं यामाष्टकं कुरु ॥
 अधस्तिष्ठति यत्सत्त्वं षोडशांशेन संभवेत् ।
 तेन संमिश्रयते ताम्रमवश्यं चन्द्रसन्निभम् ॥
 अष्टटंको भवेच्छुभ्रः खर्परस्तालकस्य च ।
 सप्त चैकत्र कृत्वाऽथ पुनस्तारं तथाऽभ्रकम् ॥
 एकमेकमिदं तोलमौषधं चैकमेव च ।
 अधश्चोद्ध्रमिदं दत्त्वा मूषिकां चांधयेत् ततः ॥
 धृत्वाग्नौ ध्मायते गाढं यावदैक्यं गमिष्यति ।
 द्वितोलं सुन्दरं तारं परं हृद्यं भविष्यति ॥

Making of silver.

Purified mandura and kharpara, ten tolas each, are to be subjected to bhavana, for twenty one times, with strong urine. Manas-shila and navasara, one tola each, are to be mixed together, and subjected to bhavana with buffalo's milk. Three tolas of mercury, previously subjected to bhavana with the milk of sehundu, and three tolas of manas-shila are to be rubbed together. All the things, noted above, are to be rubbed together,

and made into a dense and black powder. These are to be put into a vessel covered with a copper plate, and heated by fire, made below and around the vessel, for six hours. The compound, thus prepared, is to be rubbed with eight tolas of essence of haritala, mixed with lemon juice. The amalgam, thus prepared, is to be rubbed for seven days with the juice of small nagarjuni leaves, equal in weight to the lump. It is again to be rubbed with some more leaves, and to be heated for 24 hours by means of a Baluka jantram, at the bottom of which will be found deposited the essence (one sixteenth in weight) of the whole thing. Copper mixed with this essence becomes as white as silver.

Eight tolas of white kharpara (essence of kharpara, *i.e.* zinc), seven tolas of haritala, one tola each of silver, and abhram (white mica) are to be mixed together and put into a blind crucible, with one tola of the newly prepared white substance at the top and one tola of the same at the bottom. The crucible is to be heated until all the things smelt together and turn into a compound. The result is only two tolas of a very beautiful silver.

रौप्यकरणम् ।

चांगेर्याः स्वरसेनैतल्लोहचूर्णं विघृष्यते ।
 पाणिभ्यां षट्पलं गाढं प्रत्यहं दिनसप्त च ॥
 तस्य चूर्णास्य मध्ये वै सप्तटंकमितं भवेत् ।
 सत्त्वं तालस्य दातव्यं मृन्मये मूषके दृढम् ॥

अध ऊर्ध्वं सितं काचं दत्त्वा तन्मुद्रय मूषकम् ।
 कोकिलांगारकै र्ध्मातं त्रिवारं साधु साधितम् ॥
 पुनरादाय तच्चूर्णं शुद्धं वंगं तदा नयेत् ।
 सप्तटंकमितं पत्रं चूर्णं तत्र विनिक्षिपेत् ॥
 पुटयते तूपलैर्गाढं यथा वंगं विश्ल्यसौ ।
 लोहताले समादाय तच्चूर्णं लोहतालयोः ॥
 सप्तटंकमितं दत्त्वा तारं सूक्ष्मं प्रगालयेत् ।
 लोहकिट्टं समं नीत्वा मूषातो लोहतालकम् ॥
 तदा तन्नीयते किट्टं सुरच्चूर्णं नयेत् सुधीः ।
 स्वर्जिकाशोधितः शुभ्रो दीयते तप्तपित्तले ।
 षट्कमानके टंकमेकं तच्चूर्णमुत्तमम् ।
 दीयते चान्धमूषायां तारमुत्पद्यते शुभम् ।
 समं तारेण कर्त्तव्यं यथा रम्यं भवेदिदम् ॥

Making of silver.

Six palas of powdered iron are to be rubbed steadily with the juice of changeri for seven days, by means of the two hands. This powder is to be confined with seven tankas of essence of haritala in a strong earthen crucible, which is to be covered, at the top as well as at the bottom, with white glass, and then closed as usual with mud, etc. The crucible is then to be burnt by means of a fire made of charcoal, for three times. The contents of the crucible are then to be powdered, and again subjected to putam

with seven tankas of purified and powdered tin, in such a way that the tin mixes itself with the powder. Seven tankas of this compound, powdered well, are to be smelted with an equal quantity of iron and haritala, and fine silver. The compound is then to be powdered and mixed with an equal quantity of oxidised iron, and mercury. A little silver, purified with swarji, is then to be placed upon a heated brass plate. Six tankas in weight of this brass foil is to be then mixed with one tanka of the powder referred to above, and heated in a blind crucible. This results in the production of silver, which, when smelted with an equal quantity of pure silver, turns into an excellent silver.

तौष्यकरणम् ।

पारदं च शिलामभ्रं धान्याभ्रं कृतमुत्तमम् ।
 मृतवंगं सर्जरसं स्वर्जिका टंकणं तथा ॥
 समं षट्कषट्कं चतुर्विंशतितालकम् ।
 शोधितं मर्दितं शुद्धं बीजानि रञ्जकस्य च ॥
 तालमानानि चादाय वज्रीक्षीरेण मर्दयेत् ।
 तत्कृत्वा द्विदिनं खल्वमध्यगम् ॥
 गोदुग्धेन दिनैकं स्यादग्निं यामाष्टकं कुरु ।
 वत्सनामं च काचस्य कूपिकाया मुखे क्षिपेत् ॥
 नलिकारूपमादाय दृढं संधिं निरुध्य च ।
 चतुःषष्टिगुणे ताम्रं शुद्धं श्वेते च दीयते ।

Making of silver.

Mercury manas-shila, dhanyabhra, (mica, finely powdered in the manner to be explained in vol. II), incinerated banga, rala, swarji, and tankana—each six tankas in weight, haritala, 24 tankas, rubbed and purified seeds of ranjaka, 24 tankas in weight,—all of these are to be rubbed in a mortar, with the milk of bajri for two days, with cow's milk for one day, and then heated for eight days. The compound is then to be mixed with aconite and put into a glass bottle and heated. It is then to be smelted with sixty four times its weight of white and purified copper, which will turn into silver.

रौप्यकरणम् ।

घनांभसा सह तालं स्वेदयेद् दिवसत्रयम् ।
 तालकं बलिनं नीत्वा सममेतद् द्वयं कुरु ॥
 एकविंशतिसंख्यककुक्कुटाण्डद्रवेण तत् ।
 द्वयं विमर्दयते तीव्रं यावदैक्यं ब्रजेद् द्वयम् ॥
 टंकद्वादशकं नीत्वा स्वर्जीटकनकं पृथक् ।
 मध्ये तालस्य निक्षिप्य सत्त्वं समुद्धरेत् ततः ॥
 टंकद्वादशकं सत्त्वं तत आहत्य खल्वके ।
 सारलोहभवं चूर्णं क्षिप्यते टंकपञ्चकम् ॥
 मर्दयते घनवारिणा यथा चैक्यं भवेद् द्वयोः ।
 एवं तत् स्थाप्यते सत्त्वं कृतमेकत्र वर्षणात् ॥

अथ वंगं समादाय टंकाष्टकं महोज्ज्वलम् ।
 त्रिटंकं पारदं दत्त्वा तथा तारं त्रिटंककम् ॥
 एकत्र मर्दयते सर्वं ध्मायते च मूषे भृशम् ।
 वह्नियोगेन तद्गुग्गुलं तालसत्त्वेन मेलयेत् ॥
 मर्दनं सततं खल्वे घनाभसा सह खलु ।
 एकविंशतिवारेण भाव्यते तालकं दिवा ॥
 भावनायाः परं तालं पुट्यते निशि नित्यशः ।
 ततः सप्तदिनं तालं भाव्यते पुट्यते निशि ॥
 पुनस्तद् भाव्यते गाढं पुटो देयो महाख्यकः ।
 एवं शुभ्रं भवेत् तालं सत्त्वं निर्दोषमुत्तमम् ॥
 चतुःषष्टिगुणो वंगे ताम्रं वाऽथ प्रदापयेत् ।
 भागैकं तस्य सत्त्वस्य वेधनं जायते घ्रुवम् ॥

Making of silver.

Haritala is to be boiled for three days with water mixed with abhra. This is then to be rubbed with an equal quantity of sulphur and twenty one hen's eggs, until they mix together and become a lump, Twelve tankas each of swarji and tankan are then to be mixed with the lump, of which an essence is to be extracted in the usual way. Then, twelve tankas of this essence and five tankas of powdered steel are to be rubbed with water mixed with abhra, until they mix together and turn into a lump. Then, eight tankas of pure steel, three tankas of mercury, and three

tankas of silver are to be rubbed together, and mixed with the lump by being heated in a crucible. The product is then to be rubbed for a long time with mica, mixed with water, and dried. This process is to be performed during day time for twenty one days. All these twenty one days, the product is to be subjected to putam at night, Next seven days, the product is to be rubbed with mica water and dried every night, and then subjected to putam at the very same night. The substance will thus grow white, and essence taken out of it will be as pure as any thing. One part of this essence and sixty four parts of tin or copper will turn into a pure silver.

स्वर्णकरणम् ।

दरदेनाहतं ताम्रं त्रिवारं जीव्यते रविः ।
 कालिमारहितं शश्वद् गुरुपीतारुणच्छवि ॥
 अथ खर्परमादाय भाव्यते त्रिफलाभसा ।
 पुनः सेहुण्डदुग्धेन तावता मूषिकां कुरु ॥
 दीयते तत्र तत् ताम्रं विमुद्गद्य ध्मायते भृशम् ।
 ताम्रतो हेम जायेत राजयोग्यं निरन्तरम् ॥

Making of gold.

Copper, killed with cinnabar for three times, and revived each time, becomes pure, heavy, and yellowish red. Then a crucible is to be made with kharpara, subjected tá bhabana with triphala water and rubbed with the milk of sehunda. The copper referred to

above, is to be put into this crucible, and heated strongly, This will turn the copper into gold.

रौप्यकरणम् ।

तालकं षट्पलं शुद्धं चूर्णं भूनागजं शुभम् ।
 तृतीयांशं भवेत् तस्य तालकस्यान्तरे क्षिपेत् ॥
 पलं टंकणकं दत्त्वा मर्दयेत् कदलीद्रवैः ।
 कन्दजैस्त्रिदिनं यावत् पश्चात् कूप्यस्य मध्यगम् ॥
 रुध्यते त्रिदिनं यावत् तदा सत्त्वं नयेत् ततः ।
 तेन सत्त्वेन सत् ताम्रं षोडशांशं च वेधयेत् ॥
 किञ्चिच्च स्फुटते तारं तत्र चान्यद् ददेत् च ।
 तारं च कोमलं शुद्धं तदा भद्रं भवत्यपि ॥

Making of silver.

Six palas of haritala, powdered and purified, two palas of the essence of earth-worms, and one palam of tankana are to be rubbed with the juice of banana plant and with the juice of shuranam for three days. The amalgam is then to be confined within a glass bottle for three days, before essence is taken out of it in the usual way. This essence is competent to transform sixteen times its weight of good copper into silver. In case the silver, thus produced, happens to be coarse, it is to be smelted with some pure silver.

रौप्यकरणम् ।

विंशटकमितं तालं षट्शकप्रमितं रसम् ।
 द्वयमेकत्र संमिश्रय चित्रस्नेहेन मर्दयेत् ॥
 त्रिदिनं गाढमेतच्च पुनः काचस्य कूपके ।
 निधाय त्रिदिनं सम्यक् सत्त्वं निःसारयेत् शुभम् ॥
 आदाय कूप्यतः सत्त्वं तेत्किट्टं च समुत्सृजेत् ।
 अन्यत् तालं तथा दद्यादस्मिन् सत्त्वे तथा रसम् ॥
 तथा विधिस्तथा मानं तथा तैलं तथा क्रमः ।
 मर्दनं च तथा कुर्यात् तथा वह्निर्यथा पुरा ।
 तथा च त्रिदिनं कूप्यारोपं कुर्यात् तथा नयेत् ।
 निर्हरेच्च तथा किट्टं तथा सत्त्वं नयेत् पुनः ॥
 यामाष्टकं पुनर्वह्निरेतदेव विशिष्यते ।
 पुनरन्यत् तथा तालं तथा सर्वं विधीयते ॥
 तथा पुनरसौ देयस्तथा कर्म न संशयः ।
 त्रिवेलमेव कर्त्तव्यं तालसत्त्वे तथा विधिः ॥
 तोलमेकं भवेत्तारं टंकमेकाधिकं शुभम् ।
 रेत्यते मेल्यते तेन तालसत्त्वेन गाढवत् ॥
 तरुणस्नेहसंपिष्टं गाढं गाढं यथा भवेत् ।
 मेलयित्वैकतः कृत्वा ग्रन्थिरूपं भवेत् स्फुटम् ॥
 पुनः कूप्ये निधायाथ पुनरग्निं प्रदापयेत् ।
 वह्नियोगेन गाढेन तन्मिलत्यैकतो द्वयम् ॥

तद्धोद्दश्यते यत्तु चन्द्ररश्मिसमप्रभम् ।
 तत् सर्वं दीयते ताम्रं चतुःषष्ट्यंशभागके ॥
 एकभागममुं दद्याच् चन्द्रकान्तिसमं भवेत् ॥

Making of silver.

Twenty tankas of haritala and six tankas of mercury are to be rubbed together steadily with castor oil for three days, and then kept confined for three days in a glass bottle, before essence of the substance is extracted in the usual way. The essence is to be separated from the other substances and mixed with 20 tankas of haritala and six tankas of mercury and rubbed together, as before. Essence of this new substance is to be taken out exactly in the same manner as described above. The essence, thus extracted, is to be subjected to heat for 24 hours. It is then to be mixed with 20 tankas of haritala and six tankas of mercury, and rubbed, as before, with a view to essence being taken out for the third time. A little over one tanka of this essence with one tola of silver, finely powdered, are to be mixed and rubbed together with castor oil. When sufficiently rubbed, the compound is to be again heated with the result that a white substance will be found deposited at the bottom of the pot. One part of this white substance and sixty four parts of copper, if properly smelted, will produce fine silver.

ताम्रस्य श्वेतीकरणम् ।

ताम्रपत्रं विधातव्यं सूक्ष्मं तत् क्षेपयेद् बुधः ।
 अपामार्गकृतक्षारवारिणा ध्मायते ततः ॥

पुनर्निधाप्यते ताम्रपत्रं तत्चारवारिणि ।
 सप्तवेलमिदं कुर्यात् कर्मशुल्कं भविष्यति ॥
 अतीव कोमलं चैतद् भविष्यति न संशयः ।
 अस्मिन् पत्रे विधातव्यो वेधस्तत् सूतकस्य च ॥
 निर्मलं कोमलं शुद्धमतिश्वेतमकर्चुरम् ।
 वेधकार्ये विधातव्यं ताम्रमद्भुतमुत्तमम् ॥

Bleaching of copper.

A fine copper leaf is to be coated all over with a solution of apamarga burnt into ashes, and then heated. The process is to be performed for seven times with the result that the copper leaf will turn very soft, pure white, and spotless. Such copper is to be used for the purpose of transformation into gold or silver.

१

अम्बागच्छो विवुधजननीदिव्यदेहं दधाना
 मातृप्रेम्णा सकलभुवनं प्रोज्ज्वलीकृत्य दुर्गे ।
 पुत्रस्य ते नयनसलिलै रुद्धदृष्टेः समक्षं
 ज्ञातुं शक्तो गिरिशृङ्गिणीं विश्ववन्द्यामहं न ॥

२

निद्राजाड्यस्तिमितनयनोऽश्रौषमानन्दमूढः
 आदेशं ते सदयहृदये साधनाया धनं मे ।

चेष्टा मे ते चरणकमले शक्तिहीनेन दत्ता
भूदेवं ते द्विजकुलभवं सिद्धवैद्यं दयस्व ॥

३

मातृस्नेहाविधुरशिशुकं नाभिनन्देत कोऽपि
विश्वाधीशामृतपदतले स्थानलाभं करिष्ये ।
आकाङ्क्षेयं हृदयनिहिता पूर्यते किं न शम्भो
पाता त्वञ्च त्वमसि जगतः सृष्टिनाशैकहेतुः ॥

४

मृत्युस्तब्धं नयनयुगलं मोचयित्वान्तिमे मे
संरक्ष त्वं तवपदयुगं मूर्च्छपीठे ममैव ।
दृष्ट्या मार्गं मम चिरगुरो राजराजेन्द्र तिष्ठ
दृक्तृष्णा मे निखिलहृदयव्यापिनी शाम्यतु हि ।
भक्तस्य त्वं चिरदिनभवां वासनां पूरयस्व
आराध्यस्त्वं सकलभुवने हे प्रिय हे शरण्य ॥

इति मुखोपाध्यायोपाधिक-सिद्धवैद्य-श्रीभूदेवदेवशर्मणा विरचित

रसजलनिधि-नामक-महाग्रन्थस्य प्रथमखण्डः समाप्तः ।

THE END.





APPENDIX

GLOSSARY.*

A.

Abhra—mica.

Angula—a finger's breadth.

Aranala—see kanji.

Aratni—a measure of length from the elbow to the tip of the little finger.

Asava—is a liquid obtained by fermentation of prescribed materials immersed in water for a month in a jar, closely covered.

B.

Balla—see measures of weight, page 310.

Bataracta—Leprosy.

Banga—tin.

Bhavana—a thing is said to be subjected to bhavana with a liquid substance, if it is saturated with the latter and dried, by being exposed to the sun during day time and to open air during night.

Bimbisi—nausea.

Bitasti—a measure of length equal to 12 angulas, (being the distance between the extended thumb and the little finger).

*This does not contain Latin names for the vegetable drugs referred to in the book. A booklet dealing with English, Latin, Tamil, Telegu, Hindi, and Bengali synonyms of all these names intended to be compiled by the author, in collaboration with his disciple, kaviraj N. Swarnamni Shastri, kaviratna, of Ramnad—(Madras).

C.

Chulika salt—Sal-ammoniac Same as Narasara or Navasara.

Chumbaka—Load stone. It is a kind of oxide of iron, and is a variety of kanta iron.

E.

Essence of earth-worms, metals, gems, etc., For processes, see vol II (in the Press).

G.

Gairika—red ochre.

Gaja putam—See chapter VI.

Gandhaka—Sulphur.

Ghee—clarified butter.

Ghritam—Do.

Gold mica—Yellow mica, which is to be used exclusively in connection with operations leading to the transformation of base metals into silver.

Granthi—A kind of scrofula.

Gulma—Tumour in abdomen.

J.

Jabakshara—Carbonate of potash, prepared from ashes of barley husks.

Jantram—apparatus, see chapter VI.

Jasada—Zinc.

K.

Kanji—A liquid obtained by fermentation of $6\frac{1}{4}$ seers of boiled rice and 16 seers of water (one

seer being equal to 64 tolas or 64×126 grains (troy) in weight. The liquid is called aranala, if wheat is used in place of rice.*

Kanta iron—A variety of iron, see vol. II (in the Press).

Karpura moni—White marble. Some people take it for touch stone.

Kasisa—Sulphate of iron. It is of three different kinds, viz., dhatu kasisa or valuka kasisa, puspa-kasisa or padma-kasisa, and kasisa proper. The first variety is of ash colour, the second of yellowish colour, and the third of green colour.

Kharpara—calamine.

Kola—equal in weight to half a tola or a half rupee weight (i. e. 63 grains, troy).

Kshara—means two things, viz. ashes and alkali, see page 299.

Kshari salt—Salt prepared from ashes of banana plant, etc.

L.

Laghu putam—See putam, page 293.

M.

Mantram—Chanting of sacred texts.

Mutra-krichra—stricture, gleet.

N.

Narasara

or

Navasara

Sal-ammoniac.

* आरणालस्तु गोवूमै रामैः स्मालिस्तुषीकृतैः ।
पनर्वा संहितस्तत् सीबीरसकृशं गुणैः ।
कुत्सापधान्यमण्डादिसंहितं काञ्जिकं विदुः ॥

Nepal copper—copper, procured from mines in Nepal is the purest obtainable.

O.

Osteomyelitis—a name coined by an allopathic friend of the author to denote a disease in which a liquid substance oozes out of a particular part of the bone.

P.

Pacti shula—colic at the time of digestion of food.

Pansu salt—Same as kshari salt.

Phulla Turika—pure alum.

Poisons—see vol. II (in the Press).

Putapaka—heating by means of a putam (see page 293).

R.

Racti—gunja, see page 310.

Rasaka—calamine.

Rati—same as racti.

Raupya
or rupya } silver

S.

Saindhava—rock-salt.

Saurastri
or
Saurashtra
mrittika } a kind of earth from which alum is extracted.

Shali rice—a kind of rice having a white coating.

Shastica rice—a kind of rice which grows and is harvested in course of sixty days.

Silver mica—white mica which is used exclusively in the transformation of base metals into silver.

Sphatika—a quartz of a superior quality. There are three varieties, viz. Surya kanta (sun stone), Chandra kanta (Moon stone), and the ordinary one. See vol. II.

Sphatikari—alum.

Swarji—Carbonate of soda.

Swarna—Gold.

Swarna-makshika—pyrites with golden tints.

T.

Tamra—copper.

Tankanam	}	borax
or		
Tanganam		

Tikias—Cakes produced from powdered charcoal and ashes of leaves, mixed with water in which rice has been boiled.

Tola—126 grains (troy) or a rupee-weight. See page 310.

Tori—see tubari.

Trikatu—Combination of the three pungents, viz., shunthi, pippali, and maricha.

Triphala—combination of the three fruits, viz. hari-taki, amalaki, and bibhitaki.

Tubari	}	alum.
or		
Turika		
or		
Tori		

U.

Udararoga—production of wind in the belly and dropsy.

Urdhapatanam—upward sublimation.

Vida—see page 81.

V.

CATALOGUED.

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