Chapter 6
State & Medicine

In ancient India the involvement of state in the arena of medical education was primarily limited to occasional material support given to the students and teachers. A department of health in the modern sense found no place in the administrative machinery (Kangle 1965: 210; Dikshit 1971: 29). This is clear from the following budgeting of the annual state expenditure laid down in the Sukraniti (1.15), a late ancient book on polity:

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balam or army</td>
<td>50%</td>
</tr>
<tr>
<td>Danam or donations</td>
<td>8.33%</td>
</tr>
<tr>
<td>Adhikarināh or civil administration</td>
<td>8.33%</td>
</tr>
<tr>
<td>Ātmabhāga or privy purse</td>
<td>8.33%</td>
</tr>
<tr>
<td>Prākriyā or social service</td>
<td>8.33%</td>
</tr>
<tr>
<td>Kośa or Reserve Fund</td>
<td>16.33%</td>
</tr>
</tbody>
</table>

Medicine and public sanitation probably formed part of the Prākriyā expenditure. However, the general well-being of the masses was a criterion to judge the efficiency of a ruler (Rāmāyaṇa, 6.116.84). The codes of Kautalya (5.3.30) and Manu (8.395) prescribe that kings should be attentive to the sick (cf. Mahābhārata 2.5.124).

The government’s interest in the health of the people was probably inspired by the brahmanical social ethics enjoining the duty of protecting people upon the kshatriyas i.e. ruling class. From the testimony of the Charaka Samhitā (1.30.27) also, we learn that pupils of this class studied medicine for the purpose of protection (ārakṣārtha). From the Mauryan treatise Arthaśāstra (4.3.13), we come to know that tackling the problems of epidemic drew considerable attention of the rulers. According to this work on polity, epidemics were included among the eight major threats to the state (ib. 4.3.; Tirukkural 74.4). One may interpret this reference to postulate that public uprising broke out in case the state failed to deal with epidemics sympathetically as well as successfully.

Since the role of medicine is of all pervasive nature, it necessitated interaction of state with it on many fronts. As we would note it presently, the management of army and its elephants and horses in particular required the involvement of a number of physicians and other medical men. Besides, kings could not afford to do without physicians as they had to be approached for the health needs of his family and other important figures of the state. Again, the functioning of judicial or revenue machinery also needed consideration of a number of health issues. By examining these areas of interaction between
state and medicine, one may understand and document the role of the former in promoting and supporting medical craft and physicians.

An important feature of the state's role in medicines seems to be poor emphasis on veterinary science to cure the cows or goats, animals of domestic use. This aspect of medicine remained in a state of underdevelopment probably owing to the fact that the state machinery was interested in applying it only to maintain the horses and elephants keeping in view their military utilities.

Besides the veterinary doctors, a number of surgeons were regularly employed in the military department (Mahābhārata 5.151.58; Arthaśāstra 10.3.47). Many of them served the army in the battlefield from rear but a big tent of physicians was also erected adjacent to the royal camp (Suśruta Samhitā 1.34.12; Pāṭṭapattu 6.200). Their quarters on campaign were marked with a special flag so the wounded could easily get to it (ib.). This was similar to the system in Greek army as one learns it from Nearchus (McCrindle 1876:223). As per his statement, Alexander had employed Indian physicians considering their ability to cure the cases of snake-bite (ib).

The major duty of the military physicians was, however, to keep the soldiers and their horses and elephants in a state of sound health both in peace and war (Arthaśāstra 10.2.17;13.4.8). The diseased army naturally became vulnerable to the attack of the enemy (Mahābhārata 1.139.78). On the eve of attack, the physicians used to store enough medical materials (Rāmāyaṇa 6.74.33). They gave soldiers tonics for vigour before their sojourn to the battlefield (ib. 4.11.36). The soldiers also used some antiseptic balm on this occasion (ib. 6.69.18). The army physicians were supposed to be dexterous in extraction of arrows from the wounded bodies (Mahābhārata 6.120.55).

The Suśruta Samhitā (1.34.3), while narrating the functions of an army doctor, describes that the common practice of the enemy was to poison the wells on the roadside or the articles of food available on the route; hence it was incumbent on a physician marching with the troops to inspect, examine and purify them. This medical book mentions the application of antitoxic drugs on the flags and drums, etc. to remove the adulteration of air produced by the army and to dry out the poison in the atmosphere (ib. 5.6.4).

Along with their colleagues in the army, a large number of physicians were also employed to attend the royal family with its innumerable courtiers and palace entourage. They formed part of the hierarchy under the king's personal vaidya who obviously stood very high among the court officers (ib. 1.34.14). The Rāja-vaidya as he was called, accompanied the king in all his travels and one finds him in the train of prince Bharata who tried to bring back his elder brother Rama from exile (Rāmāyaṇa 2.77.14). In fact, the kings were supposed to consult the royal physician everyday (Yājñavalkya Smṛti 1.333).
Another physician was appointed to supervise the royal kitchen (Suśruta Samhitā 5.1.17). His functions had two purposes: to ensure that the king had a health giving diet, and to detect and prevent attempts at poisoning him, which were not uncommon. Naturally this profession involved risk and unexpected illness in the royal entourage would bring him under suspicion leading often to punishment. Physicians and other health-workers might have also formed part of gynaecological clinics (sutikāgrha) established in the palace (Mahābhārata 13.68.3).

A major utility of the physician was on the front of espionage for which many of them were regularly recruited (Arthasastra 4.4.3). It seems that special attention was given to keep all these state physicians contented so that they could be attentive with their full capacity (Rāmāyaṇa 2.10.8). The Mauryan treatise Arthasastra (5.3.12) fixes their salaries at 2000 panas per annum which was quite a handsome amount considering the purchase value of these coins.

As regards the involvement of the state in making provision of public medicine, one fails to discover any concrete examples of it. The Greek traveller Megasthenes suggests that officers were appointed especially for looking after ailing foreigners (McCrinlde 1876:42; 87). A passage in the Arthasastra (2.4.14) refers to the establishment of a bhaiṣajyagrham in the city. It might have been either a hospital or medical dispensery.

In his second Rock edict Ashoka states that he has provided for medical treatment of men and animals. This evidence is substantiated by the discovery of an ancient seal referring to an arogyasala or hospital among the ruins of the ancient Mauryan palace near Patna (Museum Guide 1971:33). One may fairly suppose that the sage-emperor might have done much to promote the health of his people, for he is also credited to have caused medicinal herbs to be cultivated where they were not grown before (Girnar RE-2). Whatsoever great Ashoka's ingenuity was, his acts probably confirmed to the general tradition of kingship in ancient India. His successors to the Magadhan throne might have followed his example. In the 4th century AD Sri Lanka one hears of impressive public medical service provided by the Buddhist king, Buddhadasa. The later Buddhist sources like Chullavamsa (37.105-148) speak of establishment by him of a 'hall of physicians' and the provision of a resident physician for every ten villages. The pious king probably maintained asylums for the crippled and blind as well.

In the mainland of the sub-continent, one finds the 5th century AD Chinese pilgrim, Fa-hien, describing such hospitals staffed by physicians where the indigent and sick got free services. But, according to his report (p.79), such humanitarian efforts were financed by the opulent private benefactors and not by the state. On the other hand, there were kings like the 7th century AD northern Indian ruler Harsha who, as per the record of his contemporary Chinese pilgrim Hiuen Tsang (p.239) erected resthouses along the highways with the provisions of physicians and medicine to attend travellers and poor with no money.
The state was involved in public medicine in more than one way. According to the Suśrūta Samhitā (1.10.3), obtaining a licence (rājajña) was an essential prerequisite for entering into medical practice. The Charka Samhitā (1.29.8) describes the existence of imposters among vaidyas to the corruption in the state machinery to check such 'messengers of death on earth'. Suśrūta (1.3.52) suggests severe punishments for them (cf. Yājñavalkya Smṛti 2.242).

Even the regular physicians could be taken to task if found guilty of extending medical aid to the state offenders (Arthasastra 2.36.10; 4.1.57.). Similarly, treating patients inaccurately attracted state ire (Manu Smṛti 9.284). We are, however, yet to discover any Indian parallel to the penalty of chopping off hands of the unsuccessful doctors as laid down in the Babylonian Hammurabi Code, the oldest surviving inscription of the world.

The Arthasastra as well as the code of Manu exhibits instances of the state's concern for public health. The former prescribes fines for selling rotten flesh (2.26.13) and adulterated medicine, oil, salt or similar items (4.2.22; Yājñavalkya Smṛti 2.245). The state treasury was enriched also by the tax on cultivation of medicinal herbs (Arthasastra 5.2.14) which was fixed at 6/16th of the produce (Manu Smṛti 7.131). The Kautalyan treatise frees from toll the articles meant for delivery cases (2.21.19). Special concession was also extended to the pregnant women so that they could travel in boats without any payment (ib. 2.28.18; Manu Smṛti 8.407). The state was not keen on collecting debts from the sick (Arthasastra 3.11.13). The work refers to the general concessions for the diseased subjects at number of occasions (3.20.22). The state was also supposed to provide material support to the sick in need (Mahābhārata 11.77.18; 11.228.40; Manu Smṛti 2.138).

The judicial administration as described in the Arthasastra (2.36.24) also reflects state concern for public hygiene. It prescribes fine for throwing dirt on public roads, ponds, etc. Manu criticizes such nuisance severely (Manu Smṛti 4.56). Both these treatises, which immensely influenced the functioning of state in ancient India, are unanimous in barring the diseased from offering witness in judicial courts (Arthasastra 3.11.29; Manu Smṛti 8.64).

The physicians were included among handful of persons who were allowed to go out in the night (Arthasastra 2.36.44), a provision denied to the commoners. The state had a lenient approach to the ailing prisoners. According to Kauṭalya, healthy persons pretending to be suffering from disease were to be arrested without hesitation (ib. 2.28.20), while those really indisposed were released even when imprisoned (ib. 2.36.44).
Appendix

A Note on the Bower Manuscripts

These manuscripts were enshrined by the side of different stūpas which are found numerously in Kashgar, Central Asia. With the help of local tribals Lt. Bower of the East India Company was able to collect them during the eighth decade of the last century. After a painstaking industry AFR. Hoernle published them with most satisfactory reading of the text and its translation in English, in 1893.

The object in question is not really a single manuscript, but in terms of size, pagination and handwriting, is a collection of seven distinct manuscripts. They deal with a variety of themes as following:

Part One - Principles of medicine interspersed with some curative and aphrodisiac formulas.

Part Two - Its name is Nāvanitakam/Siddhasamkarṣa. Apparently it collects the best prescriptions found in the standard medical works of the time.

Part Three - It is available as a mere fragment of what originally might have been a large work on ancient formulary.

Part Four and Part Five - Two short manuals on cubomancy i.e. the art of foretelling a person's fortune by means of the dices. These parts do not deal with medicine.

Part Six and Part Seven - Short manuals on a certain Mayuri charm, spells and methods unrelated to health and medicine.

The complete number of the folios is 51. The language of the texts is ungrammatical Sanskrit. In total, all the available statements number 1,323. They are mostly in Anuṣṭubh or Śloka meters. However, a considerable portion of the texts is written in prose. All folios carry an identical script. Its analysis with the Guptan palaeograph suggests that the production of the manuscripts dated to the late half of the 4th century AD.

Certain mistakes in naming of drugs and certain other scribal errors point out that the author of the Mss. was not an autobiographer - he was a copyist and probably the text was being copied by him with the help of some intermediate facsimiles of the original draft.

It would be relevant to refer to Part One and Part Two (as stated above) of the Mss. from the history of medicine point of view. Part Two, which is named as Nāvanītakam as well as Siddhasamkarṣa, is elementally technical and thus not significant from sociological perspectives. However, a list of the contents of this part of the Bower papers has been added below.
The Bower Manuscript

Leaf I.

obverse - blank.

reverse

1. (On) देवबिसिद्ध सुभाषिका किनर नागायत्र विभाग्यरूपिलक्षित सादुरनक्तरत्र युक्तास्त्रितेपतल सल्लादेवः
2. नुद्रमं यत्र सुकुमलसिष्यस्मातिसमुक्तनिविष्टमिति देलामु दिनु अभाट्रालीनः
   चन्द्रोड्यास्थितमुखुडळालिगारिक क्रमः
3. शास्त्रिदु: पुन्तनिती भुक्तेति। व तेस्रेन से न्याये मुनिकृतिनिज साहित्योऽन्नेत्रे: 
   समलिकुण्डकपलोदकपुष्पास्नः स्फुर्णिप्क नानिर: पित्र च प्रतिवृक्षशाखाः
4. कुंजेशु यस्य तत्त्वाः कुसमार्ध्येन निती: ! यत्र त्रिलोचनजनाता तुकुर्लक्षे प्रदेशात्य स्थितस्मातिस्सुपालिं- 
   दीधितिः सर्वप्रतिणागात शीतलितिवापिं शिवतस्फलतिकोपालभभिः
5. जुकाणकमण्ये: प्रचुरे स्वरूपः। यस्यायदुस्त जलस्वतिशिलालेखु कुंजेशु 
   नैकविश्वालिगानादिदेशु रम्येशु पुष्पकल्याणुमेनक
6. तेशु राजुः हुळाश्वरवैद्वेश्यो अस्तन्ति। चन्द्रोड्यागृहृतेऽ वैयसर भार मुहुर्णत्वभमस्तक 
   तद्वक्तत्तोत्तिस्तां श्रे:। मिंहे: शिल्लाध्यायमुहावदना
7. इत्यादि दाम्यते म्वुधरवृृन्दर्वो चि । तस्मिनिराववतनिमांकलमंडलभूतेः
सक्न्तियाविनं नागाधिभव प्रदत्तेः सार्विकपुष्पपलवलहुनरस्या
8. सानावेते विभृतलमसो मृत्युयो वरस्तिति। आतंशयारितं परावर्तमेल
गर्गाणांगमस्य मुश्रुतचः वसिष्ठ काराल काम्यः सर्वोच्चयस्रसमान्यः कृतिवदिनम्
9. विनास्वः 'समुदिता: शालसः प्रमेयः । हस्तव वर्ज्जितसितिरितिन्द्रनील प्रकाशीः
कन्दे: कुन्तस्फटिककुन्देनुद्रो भुशंखरांशुस्ये: उत्पन्नःस्यो
10. पुरानूपरः प्रमणिधितमसुरेणः स्वयं प यो तस्य विभ्रेद् भगवान
11. तमांगजना हैनः । कर्षणां दी समासां विचिलेन्ते तस्यमर्म्भिणि विन्दवः पतिता
भु मावान्यं तस्येद्र जन-मलु।

Leaf- 2 - Obverse

1. न मन्तवत्थेनमत्थश्रेय बिना: शारीरसमक्षुः विनि: स्तृत्वात् गम्भोप्रतामयत
स्वः चात्म वर्तमान शास्त्राविभिन्मवीक्ष्यः । लक्षायते [शिवोगदा] दुहेन रस्नः
2. लषुन र लि हु संज्ञा चात्म लोकप्रतीता वहुभिरिष्ट किमु तैरीरामाभिवधैः
शृंगु रक्षसुजातीनिहयामयः तेजोपयोगः । सेच पाके न कठुः प्र
3. दिशः पाके तथा त्वादुरसदहातो नै लषुःकुः गम्भेन स दुहोरिशाच्च वीरोङका
क्रोण: प्रधितरच कृष्णः । अंबोद्य नेत्रम्भकालपत्वनकलहरः
Part One which consists of five leaves is very significant since it also deals with non-technical contexts of the Ayurveda. I deem it suitable to present copies of the original leaves, its reading in Devanagari script as well as its English translation. For a student of very limited calibre like me, this task would have been simply impossible but for the scholarly output on the part of AFR. Hoernle. (The original documents are kept with the Bodleian Library, Oxford.)

I have left certain passages of the Leaf 5 of Part one untranslated chiefly because of the technical nature of the theme they deal with.

Part One of the Bower Mss.

Leaf 1

Obverse

Blank

Reverse

Om the providence of enormous wealth, inhabited by Devarṣis and Siddhas, by Kinnars, Nāgas, Yakṣas, and Vidyādharas, all pervading, delightful with clouds towering to the top of heaven.

The profuse rays emanating of the myriad multitudes of the gems made it appear like the abode of moon, stars, sun and fire where darkness feared to tread even in the nights of rainy-seasons.

Which is incessantly worshipped by numerous groups of sages accompanied by their disciples, carrying wood, kuṣa grass, fruits, water and flowers, from groves where the tree branches are graced by celestial maidens in quest of flowers.

The Lord of the Stars (i.e. the moon), whose permanent abode being in the crest of matted hair of the Three Eyed One (i.e. Śiva) enamouring the precious moon-stones with its rays, thus letting flow a copious stream of water, cool and clear like the crystal of the Himālayas even by day.

In whose beautiful groves, crowded with the trees bearing flowers and fruit, reverberating with the voices of swans of various kinds of birds, and having their rocky terrain washed by the water emitted by the clouds, the medicinal plants fluoresce in the night like sacrificial fire.

Where the lions with thick brighter means putting the moon to shine and elephants with shoulders besmeared during rutting season, roaring in derision with mouths like mountainous caves, not even sparing the thundering clouds.
4. श्रीलो मुनिहृषेषु: माधुर्यालिप्तभावाद्
पी तस्य स रसस्या पितप्रशामन, औषधालादेश-
यातकदुर्वात्कुक्यवधियो बिद्वद्धिसुहृदितः सवनिगागिनिह्यादिः

5. विविधविद्वितै दोषायथव:। पवनं विनिर्दृणं त्यपि कारणं कम्पयाप्भिनार्दितं
रामयेत्, जनमेकथ्यि चानि ब लेन्न्यं बलसंकितं। प्रत्र

6. रक्षण में। अयथ बुद्धविक्रममथमां
सर्विविधिविभूषभुमं सुखात्मकानां अयथातु
लोकनीतिः प्रयोजेऽाहिन्नो च मध्ये च मध्ये

7. वे च। त्यांनेले कामिनीभूष्यनसुचिता यत्र कामचन्द्रीकलाला: हरा: रात्यानं वहस्तका
नतुगळा पीड़नात्सप्रयांति कांति टेन्द्युः नालठानिकरु सुभागा दृष्ट्य

8. पृष्ठभोगाः: काळे तस्मिन्प्रयोजने यथे सत्यु बुद्धतं कुक्षमानकाश्च चत्र। हत्यनिधिएव
तोराणेभुन्म बलभूदारेषु अविच्छिन्नाः: कर्ताद्या लघुनस्वो विचारेिकाः

9. [त] येदकावनम: मालास्तत्परिच्छारस्य च अनस्यारोपेतनमयीरिनित्यस्येषे
विभिन्नायस्य
हि हिति: सत्याचार्यां नामत:। अथ शुद्धातु: शुचिविद्वितिः

10. [सुरवि] प्राणप्रतिपूण: पावकं च लघुनास्तवस्य व्यायमेऽप्रेति च शुभग्रहेनुसैनः
कुडवं कुडवा दयायिः च तत् कुडवं सार्थिनो चिं काविती......

Leaf-2 - Reverse

1. निर्माणा न रहि काविद्रात मात्रा प्रणिपेठोष्ण बलामयानि दृष्ट्य। मतालक...कथनानिलेः
शुभं प्रवत्तमसमभवस्यर्वदेहां

4. श्रीलो मुनिहृषेषु: माधुर्यालिप्तभावाद्
पी तस्य स रसस्या पितप्रशामन, औषधालादेश-
यातकदुर्वात्कुक्यवधियो बिद्वद्धिसुहृदितः सवनिगागिनिह्यादिः
2. भन्ने, गुरुद्वा पिवतो शि ता यदि स्पृहैत: शीतलत: स्वच्छत: ज्ञानमात्र। सुराजनीयांस्वायुमित्तः गार्डियंकक् प्रगतिद्रसस्य पूर्वैं गालकूडविण्यः।

3. वेलो: स्थित्वा मुदुरीपिपिवेष्टसिद्धर्मः। तत्सिद्ध्विरोधे प्रवैन्ध्वायमहुमस्यात् कृति:कोऽयान् जागरानां रसेद्वैह द्वैह; संस्कृतेन्द्रेतेव द्वैह: स्मृतिमित्रायेन च।

4. कालम्। पिवेष्वीरक्षिक का मधु मस्यसम्बन्धमदेशाम् अरिष्टे स्वीत्वे का नगलमपान मैरेयमधि त्वा असी ब्रह्मा नद्ये। भवति गुरुवाक्षरसमसालिम। पिवेष्वे के का ता न।

5. भवति यश्न मध्यव्यतिकरः। अमधाप: सुखो दन्ते पिवेष्वायमेव्वक्षिकम् शुद्धोके सुवीरजः। पिवेष्वा मधु मस्य मधुभभुम। न गुढेन क्रमिचिद्रेन मध्यांत्य त्यागांत्य नले पिवे।

6. त्रयुजयं तत्तमा भवेन्द्रजीरिनिकी न का शादेनहूँ। वासारं। अय कन्दा:धुभभ्व। दाह्यानुपियान्त्यबज्जत तत्समाप्त रजसेनाशिर्मवन्ते देवक्षयं इष्टाभान।

7. व्युषं दस्यम्बक्षरः भविमित्तविलं। मितमात जीरों का रसकल्यात्साहारिति मध्वेतृता। द्वार्यवेत्तात्तातिरिती। कर्माचारां प्रायप्रस्री मध्या अन्योधितवान।

8. तात्साहित्यानुपान्त्यध्वस्तं। कन्दा:धुभभ्वानप्रगत रूपेण कुलमस्यामः। सर्पस्तैतियाः। समितीगुहकी। स्पर्शमसप्रकाराः। मोदिनीभूसिरिवाकुपुरुषोऽधिविभक्ता।

9. तेजस्वीक्रियाच लक्ष्यदृष्टिसस्करः बृहुंर्थि शपेषे कान्तिनाथप्रकारितिः। मांसे साध्वी भक्तिः। साध्विकाण्डतथा। कार्द्वृत्तेन हृदयं तत्सं पायीका शिवां। सूर्यजुलीवाः।

10. प्रद्युध्यवाः का स्पष्टेदैलं तत्सद्धिश्रमः। अय तेलुक्कसिदः लगुंन निद्रित यथेषु। परिनिर्घु शुदा। स्थितेन्द्रधृधपूण्यः नरः स।...
The mountain, which is the cream of the whole earth, the riches of the world, its bountiful gifts, the embodiment of benefaction of all creatures, the summit where trees bloom and bear perpetually, forms the dwelling of the munis of enlightened mind.

Ātreya, Hārita, Parāśara, Bhela, Garga, Sambayya, Suśruta, Vaśiştha, Karāla, and Kāpya. Hundreds of times they used to roam about in company of one another, enquiring into the tastes, properties, forms, powers and names of all medicinal plants.

Having observed a plant with leaves dark-blue like sapphire, and with bulbs white like jasmine, crystal, the white lotus, moon rays, couch-shell or mica and having his attention aroused thereby, Suśruta's query about it to Muni Kaśiraj have the holy man reply as follows:

Long ago, the Lord of Asuras was beheaded by the holy Janārddan (i.e. Viśṇu) for drinking the forth-churned nectar. But, the drops falling on the ground from the pharynx, which remained attached to the severed head gave rise to the plant, (i.e. garlic).

Leaf 2
Obverse

Hence, Brahmans do not eat it, because of its having originated from a living body; its evil smell also as per the learned, is due to the same cause.

Because of the absence of salty taste it is called rasuna, and its designation of lasuna is well known among the people. What need to mention the many names by which it is called in the languages of different countries?

Hear only its taste, properties and powers on account of their importance for its medicinal use.

In its taste as well as indigestion it is considered pungent though in the latter case, it is also considered sweet. Being delicate does not mean it is easy to digest as shown by its fierce aroma. With regard to its power, it is hot and is a known aphrodisiac.

On account of its sour, hot and oily nature it is used as a means of reducing the strength of the airy humour, its sweet and bitter nature manifested in its taste utilized to lessen the bilious humour, the hot, sharp and pungent nature of it is suited to subdue the strength of phlegmatic humour, thus appointed by the creator and upheld by the foremost learned munis as a potential source to remove the defects of these three humours, so as to cure all diseases.

It kills also the airy humour when it permeates the bones, and rectifies also the phlegmatic humour when its defects is not chronic; it also satiates the digestive power, and may be considered an excellent means for restoring vital power and colour.
For those who want to enjoy in comfort the winter season as well as in the months of Madhu and Mdahava the following celebration of the garlic should be observed.

When women eschew cute girdles fit for seducing men, when necklaces are not worn on the bosoms due to their distressing cold, when amusements on one’s own roof-tops on moon-lit nights are less relished, when aguru is much wanted, when their bodies are clad in kumkum, the festival of the garlic has to be observed.

Then on the house tops, gateways, and upper windows garlands of garlic richly set with its bulbs should be displayed with one performing the worship on the ground itself. The people of one’s household should be made to wear wreaths of garlic, the ideal manner for observing the festival meant for the people and known as svalpowamā.

Now the first formula: Having washed his body, and impurity and worshipped the gods, brahmans, and fire, the patient should drink, on a day marked by an auspicious constellation of the planets, of the fresh juice of garlic, strained through a piece of cloth: either one kudava or half a kudava or one and a half kudava or even more:

Reverse

There is no fixed measure; let him drink with the due regard to the diseases caused by the strength of the humours. While he is drinking, one should gently blow on soft currents of air with fans made of palm leaves, and when he swoons whilst he is drinking, one should sprinkle him with cold water and rub him with paste of sandal. Of this juice, fortified with one third part of sura, he should sip a mouthful, and first stopping a moment to let it play in the throat, he should drink it together with the rest. When this is digested, he may eat milk with rice, or milk may be taken with the addition of the broth of game or with dainty decoctions or pulses or with oleaginous substances; but he should take these moderately and only once a day. He may drink mārdvika, or madhu, or madirē and madhu in equal parts, or arīsta, or sidhu, or jagala, or agaja, or maireya, or whatever other strong liquor there may be, but he should drink these with water, or one at a time, lest there be any mixture of liquors. If he is not used to drinking liquors, he may drink warm water or sour kanchika, or he may drink tusodaka or surviraja, or fresh whey. He should never take it with treacle, nor should take it only for a few days.

Now the second prescription. Having crushed small fresh bulbs of garlic, and together with an equal quantity of clarified butter, stirred them well with a churning stick in a vessel used for clarified butter, one may, after having let this preparation stand for ten days or longer, eat it together with an equal quantity of bel fruit, and when it is digested, one should observe the diet prescribed in the case of the use of the juice.
Leaf - 3. obverse

1. देशिक्षतानि तक्रमणानि तद्वारणं: प्रयुक्तं विद्वानावासानाधीनमिति धम्मं भवेत्।

2. किखमधतपथिनिमात् पेलप्रस्थि अवगतम: पिष्ट: छूटचे: द धासिकाः परिशिच्यो कल्यां भेदयंथा:

3. सुशीतं प्रस्थि यह बो युनरित्रेतत्त्र विष्णुं भौमात् रति सुगेयं पच्च पररारानस कर्मी राज: समानिता

4. अवति पेलं नातकशिल्पदृश्यकारिकामि तेलमें तथा सुराम सि ना पुरुष प्रयुगीत यहन कः

5. परिपति: तं गादनीकान्याजीं कुलस्तानिनितेरेः। प्रस्थि: पिष्टवता सोधित: मेकलसु नानास्य

6. परिक्रमेत्र: सार्यस्तेलालयां कुडविशिष्टं दशांतः वर्णकर्म कसारसिते विष्णुभास्ति।

7. कुछ हुन्याभोजितमात्र खंडिरेषा काश्यों: हृद मन्नदास्ति जिंक: स्यत: प्रोक्ष्येतिविनिभों

8. नानाविधद्रव्यविशेषयुक्त: म संज्ञाण कुञ्जिकर्त्तयं कल्पे यथा अभुतं: तु सिद्धिः

9. नानाविधद्रव्यविशेषयुक्त: म संज्ञाण कुञ्जिकर्त्तयं कल्पे यथा अभुतं: तु सिद्धिः

10. परिपति: कार्यार्कक्रियाकर्मावर्तिनिश्चित: तस्मीनस्वतः उपवस्तुवनासमारसंस्थित:। श्रीमान्यः
लक्ष्यनामा कल्प उल्लो महायसु मुहरि प्रस्तुत: अनुसरणश्रेयसः प्रकाश ।

1. आलिपुद्धिन्नन्नां साम्यमारोपणनेत च 'प्रथातः स्वरूपुस्मुलस्तु 'पर्सिम्ब्लिया' 'क्षेत्रः' 'स्वतंत्रित्वारोप्यमहायर्मयिनः' ॥

2. रूपमा पुष्पज्या तेजासमयत्वात्: सम्बैसत्रयजीविताथा नामोन्नामेबिइश्वरतः स्वतंत्रम्निमित्ताप्राप्त: तथा त्वाम् सेवन: 'प्रकृतितिः' 'प्रमाणाद्वियम्बिकी सर्वं: विवेदावचारादिकम् ॥

3. श्रिःभूषण वर्तविरेचस्यकान्ता पाणिमांनाति चमक्तुलंस्यं पुर्वक प्रव्योजनानांतर्गतमस्मुर्गिरिः प्रयोगार्थ हि:ताः पिन्तकाप्पहः यज्ञासात्मां प्रयोजनां समेतोद्विभाषानितिः भव: ॥

4. इति दानाभ्रा: तदन्ते तदन्ते विविधपर् अविविधमुः 'निरघुं निरघु' विविधेऽस्मानव्यः संस्कर्थितुष्टिः त्रिवेदावचारादिकम् आनिमला क्रिया ॥

5. क्षिप्रविश्यासमयसात्तेजसर्वत्रात्त्वर्ती । स्वरूपन श्राब्दुपुष्पयां ब्रह्मिशिरसुकपरिति मस्वुकनामेवारोप्यबङ्गाली । वित्सुकामः प्रयजितं मासेनतुलुमेभावी धार्मासच्चुन्नथोरोः मनस्य ॥

6. इति 'सत्त' वर्षस्त्रास्वप्नशयाः समास्वरूपाच्याद्वया तथा त्वाम् सेवन: प्रयोगार्थाः प्रयोजनानांतर्गता विविधाभार क्रियाः ॥

7. इति तदन्ते तदात्मक सत्तस्त्रास्वप्नश्रुत्यं: तदात्मको विविधांतत्वं स्वप्न परत: परत: 'प्रयजितानि' अवताराः । • • • • •
8. यातायात्तकयोगेण लोहवाशकिदेिि ध- छुटििांिाि नवलाइसुभ्रमुथगगािेिु-िे उत्तपाकतंत्री

gाजबेदिनानििनाश-ि्भोिि नेत्रु-िेि

9. अन्येशु चाप्युक्सेऽ यज्र भागों न नितिितः ब्रह्माण्य समभागः स्वादिशगुणो मधुसयैिी

त्रिगुणां नु सुदं दध्वासितान्युगं अनुगुणशाश्वे वेल्वेषु या

10. नोलििे व्रजन्वाल जलं नात्मं दध्वासितान्युगं सर्विशेषस्मृिशाश्वे च गड्डं प्रकल्पादेवस्रंकि

मध्यानं मङ्किकोि्भवम्। दादमित्वञ्चया

11. साधकी कञ्चुलिि निपायडेि कर्नो भगोििै लिंगस्वर्ण सवर्ण रतनेि कथाति। स्वातांििे

उल्लिििििद् तालििोिंत्या

12. - - - दक्तिमीलानो कर्णि कर्णि पुष्यक्ष्त्वक् पिपल्या: स्तनभारास्यैि तथा रिष्के

बलेतसाविि्भि-ििःिििाभयं गुड्या
The two ways of using it, above set forth by me, are the principal ones. If one is not willing to make use of either, let him hear from me other ways of using it.

The third formula. After cleaning bulbs of garlic till they are as bright as a crouched shell, they may be eaten with flour of parched grain, kutmasa and shukra, well cooked with clarified butter and oil after the manner of broths and meats, accompanied with mashed beans and green vegetables, well seasoned with some spices and salt. Or they may be eaten prepared in many other ways. Or other parts may be taken as follow:

The fourth formula. Having boiled their stalks with meat, one give this savoury broth to drink, after straining it through a piece of cloth, or one may give him milk similarly prepared or a pottage of pulses mixed with them.

Now the fifth formula. Garlic together with oil and sukta, placed in a quantity of barley, should be plastered round with clay and allowed to stand for a year, a person partaking of this will get rid of diseases even (if of long standing).

The sixth. After a cow has been kept for three nights without grass, she may supplied with garlic stalks together with twice as much of grass.

Leaf 3

Obverse

— Any brahman may then use her milk, curds, and clarified butter or also the buttermilk, and thereby overcoming all sorts of diseases, he will enjoy happiness.

The seventh. Thirty-two prasthas of the juice of garlic, one quarter as much of yeast, one prastha of oil free from all impurity, and six prasthas of flour should be taken. After boiling these a wise physician will further add one well-cooled kalasa of Mesasringi and once more throw in two prasthas of flour. This liquor will after five days become ready endowed with taste, colour and aroma; as an oil also it is excellent and most effective. If a person uses it diligently, whether as an oil or as a liquor, the hosts of diseases avoid him, just as in a fight armed people are avoided by others.

The eighth. Having crushed one prashta of cleaned garlic, one should mix it with half a pala of powder of the three pieces of myrobalan and a kudava of clarified butter and oil, and then allow it to stand for ten days. This makes an agreeable remedial paste against cough and asthma.

Joined with remedies against air, garlic cures abdominal tumours caused by the airy humour. and if joined with khadira, it at once cures skin diseases. Mixed with hayagandha, it is a remedy
against cough and asthma, and mixed with liquorice, it is declared to be good for the voice. It cures various kinds of diseases, when joined with various kind of substances. There is no sort of discomfort in the administration of it, so that it may be used by people who are fond of ease.

Hear from me with an attentive mind, o Suśruta, as I set forth briefly its virtues, when applied as an alternative tonic. It cures skin diseases, loss of appetite, abdominal tumours, cough, lameness, white leprosy, and weak digestion. It removes rheumatism, menorrhagia, abdominal pains, consumption, morbid affections of the bowels, enlargement of the spleen, and haemorrhoids. It banishes hemplegia, sciatica, worms, iliac passion and urinary disorders. It cures lassitude, cold in the head, rheumatism in the arms or back and epilepsy. Venerable sir, with a voice beautiful like that of a tabor or flute, with a complexion clear as molten fine gold, strong in memory and mind, with a well-knit body, free from all wrinkles, etc., with all the senses steady, collected and constantly increasing in vigour, you shall live for a hundred years, with a well-regulated digestion and inexhaustible virility.

Reverse

Thus far the administration of garlic has been explained by me, even as it was taught by the sages of old, ...... and one should accurately observe, it .......

Food-digestion, the normal condition of the elements, health, plumpness, spirits, energy and long life are all dependent on the digestive faculty. The digestive faculty is set in activity through food, and the resultants of digestion are the elements, health depends on the normal condition of the elements, plumpness on health, good spirits and energy on plumpness, and through all these the life of living beings is prolonged. Hence one should first of all examine the state of the digestive faculty.

When the digestive faculty is such as to produce the normal condition of the elements, it is said to be (normal or) regular, and this is justly considered its best state. When the digestion is abnormal or irregular, one should drink things made of curdled milk or clarified butter and the like, greasy and warm bongies also are useful, afterwards food and drink may be taken. When the digestion is weak, one should fast at first, and afterwards use medicines to promote appetite and assist digestion, also the use of liquors medicated with powders is advantageous as removing derangements of the bile and phlegm. When the digestion is regular, the physicians should prescribe whatever is agreeable to the system.

Further it may be observed that when the digestion is weak or too active, a person dies, unless he receives proper treatment, when it is irregular, all sorts of disease arise, when it is regular, he lives long in comfort. Hence a wise physician will at all times in all diseases first direct his treatment to the proper regulation of the digestive faculty, afterwards paying attention to the relief of the sickness.
1. यथार्थ्यात पुरस्ता पलाटस्मयास्वरूपित दुरासोद्रेण, यशकृत् मन्येत्तस्माराजाम् श्रृणि दौसासां पाचनोऽयं अलस्यां पितेदुनिरोगतं विष्णुसाह राजासाहित्यम्

2. प्रयोज्येत् नानां कृष्टिपरिष्ठो भक्ष्याणमसा सदा सब्बिंको नरेन्द्रायां धीरेयों न जस्तिमित्वेत्: अरास्तुत्युप्रमणं: स्मरणिग्रस्तविनाशनं: रुष्यो रसमनस्वचेत

3. जैस्यार्याविश्रामम्: नापुजायप्रदातायो नानिव्यायकथ्यन्वय: राजधिने न दात्यो अचान्यस्माप्पारिशः। द्वैपं भगवे मथुरक युध्वीरासर्वगत्यार्यसमुद्रसङ्गापादः सब्बिंतः

4. लेवेत्वर्तिनालाच मृन्याकुलत्वालालु द्वन्द्वं युनरंवा के सुपुलित्वान अनोंतो न अलाकुत्त्रीनकरं: सुर्णड़ पुलिस्वल प्रोह्नुकुरुक्षुपुष्याला

5. महोजप्यं तद्धवायां निरिविक्रियेकृणिं प्रसोवामां पयो गय्यायमां का तस्फूण्ड्रं किरिमित्वं तु सुखोहार्ष्ययोतनं वायुकृतं 'निरोजः। राज्युण्डूलं प

6. उकुल तुंग यासा मेदा मृगालं मथुरक समसंगा काळन कं परसिकवा अलर्यालात्त्वायापर्यायींग परमं कंचार्मानुरोगराजानं उवेत्तानां शुणान्त्याद्यपुष्य भरतान्युशा

7. नामु प्रपोर्भिकं सकिकारतिकं अनुभवित्रण सिद्धिद्रुवं: पत्रोपवार्तामु: तों इतिश्रीम: शांता पवित्रिक क्षुधायो वा श्मितास्तहार्ष्यस्मानुसारम् स्वातः सज्ज्याः स्नेहकर्म स्मृतिक्रम मुग्युक्त मच्छे काले

8. रोगेन शीताकर्तमें न च। शीतुणाहारिन्व त्रिलमा हरिद्रा कालिका आतिरेकङ्गार्जात्यः लक्षापेन वी 'सुरसी' वत्सा वाद पाठश्लोकः अध्यात्मः याद्यमु: संकोल्लालयुसार्च
9. कारी रोष करण्य कृत्तिं दुर्वचनाम पृथवी भएः स्रैण्यिः व्यासवः।
कार्यरथिः सप्तस्यासिकाः आश्वयोतन्स्क श्रेष्ठक्रृतति ज्ञीरोऽणे मधुप्रसादः प्रवर्तिते संतः पुरुषः...

10. तकतितिः दीक्षत्त्वामक्कलस्य व्यायर्गं कपिल्यकोऽः नमातुलुंगेश्वर दामिनीस्मादस्सः।
पथोभिः क्षिप्रस्तुता वा दार्श्यं त्यप्लेधः क्षिप्रे तैस्व सामन्नेऽरस्यऽवत्तनः सेवोऽव सं...----

11. - त्याग्यितेश्चकः तन्न निपटिः स्तूलिम कांडेत्रस्वमं प्रसर्प्या संसर्गिः सत्त्वसमुखिते ब्रह्मीनाधिकारवं प्रसम्रिष्यरोऽगुच्छैः त्ूंतः --

Leaf 4 (reverse)

1. - "पहरी चितिः"। खुर्णूलं सफ्तिश्रेष्ठ विभजर्यं चैरुपतं व्वजनाम् स्थानातङ्गवेत्रस्वम्यम्
प्रार्थयोतनः -- नारोऽक्षत। प्रजप्रेषयं कम्भुकः प्ररिवर्तयं----------

2. आश्वयोतनं श्राक्षेयात्तिरिश्राक्षेयां पितारिविपूर्वत् बिनिन्त्वक्षितं।
नतंशवदश्रृप्रसृप्रस्तरुसृप्रसृव्य प्रही नेहरमिलेष्ट
प्रत्यश्मऽजानाम् चैरुपतं:। शैशवस्त्रश्रोत्रप्रार्थयोतनं वातकार्पर्यस्य--

3. वाघ्यसिंहेश्वरमुक्तन्यथेस्यस्तक्षितं लियावा आश्वयोतनोऽऽसतत्त्विपिनेऽसरः स्वक्ष्मेण विद्वेषीः।
चूर्णिस्तुऽक्ष्मिन्तं धात्रायस्य स्वः क्षितिः ऋषीपर्कथे देशे आशा--स्या

4. जनय जलेणा परिष्केत दुर्वचनामप्रस्तर्ब च। वाघ्येश्वरं त्रिधार्यं समुस्तं सरङ्गेऽ गारिक मंत्रिं
संप्रयुक्तम् आश्वयोतनम् मानुषुपुञ्जुप्रयुक्तोऽऽवतापत्तम्बाद्वग्यमुतः। रज्जुमुद्वेश्तरः
5. दशान: साप्ताहिकी खट्टिकतशुलानानं शृंगारसं राजकरप्रासादं पूर्वेश सत्येन सर्वपार्वेय रूपान्तरितं। स्त्रेदुपदपकानानण्डलस्त्रीलालपदेशप्रिज्यकी आरस्वयोतनम्

6. निदेशीत्रिभूव्रितते: प्रकपयुित भिषजः। अतु व्यायमितिः भीः व्यायमौलीकनारणाः। विप्रप्रायापहारं।
    मुख्येऽपि प्रचत्ते। लेखके रिणान्तदनपक्षको कौशलयुग्रमृत

7. राजां व्यन्तवालिकः कथा मूलं कुशानं तगरेितवा। लुता लीम्यन्तलक्षमतनाथ मसूर वधमियं।
    मृत्तलंडस्त्राहिलीमधु कोपवलानां शैलेयमुस्तागुरु

8. भामकंवर्तकियेनेष्वराएवैलालगाणितिः रक्ष्टि कुष्ठाः तुर्भामकं। चांड चांडी राय द्विध रोषायनुसरलनेत्रपुपुनविकृष्ट्यतिलालताचा प्रत्यक्ष

9. सूचेक्षदन प्रलेपेण। कालेशु व्यन्तविधिः संख्यान्यः। निदर्शिता इश्वरिता नराशा। दोषाध्यन्तेश्वरपुण्यो्य 
    मानानु वातमायप्राणिज्ञानानां मोक्षः: पिन्न

10. समयन: रार्द्री प्रदेशः। ऋषिपदेशः सुधिरामच्याः। कथायचतः। कसुमानोऽक्षः। कर्मचरि 
    मूला व्यततामुर्शी रक्षार्यका कीर्ततां। त्वन्तः भदभिषे

11. यह बहस अवश्य तथा वश्यन्त्रित्वन्ते प्रलेपानु। सतानि मूिने गावां व्यस्पतः। कौलम्बुलद्रः। सत्तभिषिता वा स्मुन्ने। निपुत्स्यां। सर्वस्या:। रोष्य
He who also desires a good memory, health and strength, and wishes for a long life, should make use of the fresh juice of the sankhapuspi, brahmi, mandukaparni, and liquorice. Within one month he will obtain a good memory, and within twelve months he will be able to reproduce from memory whatever he hears once only, without any decay. With the same treatment, he will live for a thousand years or for two hundred-years, if administered in proportion, and if he goes on continually repeating the treatment, he will enjoy undecaying life.

In the case of gruels, khada and decoctions of electuaries, powders, and antidotes, of pills, ointments, suppositories, medicated liquors, fumes and sternutatories, of roasted drugs, emollients, sudorifies, emetics and eye lotions, and in the case of any other medicaments, not named, when the proportion is not mentioned, the portions of the ingredients should be equal, of honey and clarified butter, there should be a double portion, but of treacle one should take a three-fold, and of powdered white sugar a four-fold portion. In the case of pulverized drugs, when no liquid is prescribed, water should be understood to be taken. In the case of curd, urine, milk, clarified butter, hair, horn and roof, one should prescribe all these to be taken from the cow, so also from among honeys, that of the common bee should be taken.

With the rind of pomegranate one should boil mustard oil: rubbing with the causes the growth of the ears, and of the labia pudendi and the penis.

Boil half a pala of the root of chitraka likewise of trivrit, and satala, and one karsa each of the roots of danti and .... and likewise of long pepper, rocksalt, asafoetida, and Indian sorrel, and twenty of the best chebulic myroblans .......

Leaf 4

Obverse

From these carefully prepare ten boluses with eight pala or treacle, and take one of them on every tenth day. After it one should drink warm water for the purpose of correcting the defects of the humours; then, after the purgative has taken effect, one should bathe and may then return to one's ordinary diet. There should never be any hesitation with regard to this remedy, either in word or deed or thought. It is a purgative composed by agasti, fit for princes, and which can be used in all seasons. It prevents old age and death, it cures all diseases, it also acts as an aphrodisiac and alternative tonic, and enhance memory and health. It should never be administered to any one who has no son nor disciple, nor should it be given to an enemy of the king, nor to any other sinful liver.
Both panchamula, liquorica, guduchi, rasana, aśvagandha, āmaradaru, pātha, bark of cinnamon, the two bāla, tagara, and seeds of sesamum, nūrva, kulutha, Indian spikenard and ghana, punarnava, and bark and fruit of venu, jivantī, and also cardamom, aloe-wood, and śivaka, root of the castor-oil plant together with its nuts and sprouts, flowers of kuranda, and ginger, two or three of these drugs should be boiled in the milk of goats or cows or sheep mixed with water, and then, with the addition of a little rocksalt, the mixture may, in a tepid state, be applied as a lotion in eye-diseases caused by the airy humour.

Indian barberry, blue lotus, padmaka, tunga, vasa, meda, leaf-stalk of the lotus, liquorice, samanga, yellow sandal, parpataka, and lata, also raisins, kasmarya, and parusaka, roots of gundra, of nāda, and of vetsa, and blades of not flowering grasses, propaunderika and kirataṭīkta, white sandal, nimba, patola, vasa, two or three of these may be boiled in the milk of a goat or a woman, and then, with the addition of sugar and honey, will make a very good lotion in eye diseases caused by bile and congestion of blood.

The three acrids, the three myrobalans, sulphate of iron, nutmeg, soot, jasmine, also lac, danti, surasa and vācha, pātha, aśvagandha, āmardāru, also kantphala, cardamoms, aloe-wood, kantakārī, rodhra, karanja, vrihati, svadamstra, two or three of these may be boiled in water and when cooled down to moderate warmth, they may be used, mixed with rocksalt and honey, as a lotion in eye-diseases caused by phlegm, so the sages declare.

With paraśka, the acid fruit of the hog-plum and tamarind trees, rose-aple, mango, wood-apple, jujube, together with citron or the acid juice of pomegranate or with some liquor or with milk or with curdled milk or whey, also with Indian barberry, blue lotus and the other above mentioned drugs, boiled with sour substances, and mixed with some rocksalt, a lotion is made for the eyes which will thoroughly cure any disease of the eyes due to congestion of the blood produced by excessive heat or cold.

Having ascertained whether an eye disease is due to the deficiency or the excess of two humours or all three humours concurrently, an intelligent physician should determine his line of treatment.

_Reverse_

The tender roots of the castor-oil plant with its nuts and sprouts, added to the milk of goats make an excellent lotion which cures any eye disease caused by vitiated air and blood: so good physicians state.
Parapaundarika, liquorice, turmeric ... mixed with sugar, make a lotion which stops any eye-disease due to vitiated bile and air.

Nata, svādamastra, urihaṭṭ, cinnamon and harivera, these, boiled in goat’s milk and water, and mixed with rock-salt, make a lotion which cures any eye disease due to vitiated air and phlegm.

.... Indian barberry and best liquorice, boiled in the milk of cow or a woman, and mixed with sugar, may be applied by a good physician as a lotion in any eye-disease due to air, blood and bile.

The three myrobalans, finely pulverised and tied up in piece of white linen, and soaked in milk of a goat or a woman or in water, are a remedy in all eye-diseases.

Indian barberry turmeric, the three myrobalans, mutsa, mixed with sugar and honey, and done up with human milk, make lotion which is said to be a capital remedy for diseases due to defects of the bile, blood and air.

Together with young roots and leaves of the castor oil plant, as well as with paste of saṣṭika rice savaraka, steeped in clarified butter and rubbed on according to the direction in the preceding formula, is a remedy against all eye-diseases. With the same drugs as are prescribed for the lotions, a physician should prepare sudorifies, putapaks, errhines emollients.

Plasters on the face are declared to be suitable for complaints of the seasons, to remove moles, and black spots, and to be remedies against poisons and swellings.

The book of the five trees with milk, also sandal and padmaka, gundra, leaf-stalk of the lotus, also ghana, and valaka, roots of kusa spikenard, and sesamum seeds, masuras, durva, uncooked barley, leaf-stalk of the lotus, and juice of liquorice and lotus, saileya, mutsa, also wood, and jhamake, sthauneyaka, cardamoms, tagara, and sesamum seeds, bark and leaves of cinnamon, kustha, aloewood and jhamake, māmsi, harenu, and paripalva, liquorice, rodhra, aloewood, and white sandal, punarnavā, seeds of nigella and sesamum and lata, with the six face plasters described in the foregoing six half verses the patient should be treated in the summer and the other five seasons. They are declared to be beneficial for the sight. Listen now to me as I explain how to remove the defects of humours of men.

In the rainy season they are said to cure diseases due to derangement of the air; in the autumn they are held to cure disease due to derangement of the blood; in the spring they are said to cure diseases due to derangement of the phlegm.

Roots of the cotton-plant, lata, usina, yellow sandal, and the bark of the five trees with a milk sap white sandal, .. barleycorns, these are said to make pastes for the face beneficial to the complexion. These drugs should be dried and then mixed with the urine of a cow, or with the sour juice of jujube and urine, or they may be dried and mixed with the juice of citron and with mustard.
The Sower Manuscript.

Part I Leaf 5.

Obverse.

Reverse.
Leaf - 5 (obverse).

1. कालुक्ति-च दुष्ट रूः भिरे - च मुक्त सा - वरके निर्विभे - च नास्ये कृता
विष्णुवा नवन्दनप्रलेप: तवमनस्स्नानं च मन्येशिला व्याख्र

2. भुक्तं कुं कुंतु सुरसे दृष्टे विषया: स्युदिन प्रलेप:। मूलमिर्गनामा स्पिरला करुनं
शोभापूर: स्युदनप्रलेप:। मूलव्यति जीत्रमुज़ुण्यतां करति शोभापूर

3. दन प्रलेपम्। मुखेप्रणमनं हस्तन्नुमृत्वचनं न सेवेत तथानन्नामात नागोऽपति भोगः च
आर्येन रुद्रके प्रलेपंदेशनेमुन्यः! आभीलमीलिकमापि

4. कुष्ठं चन्द्रं सर्वन्तति लिलकानं जनोऽऽ शम्भंति सख्योऽऽ बदन प्रलेपादिस्त्रिचं वक्तं
भवेतसन्नम्। मुखे प्रणिं स्तम्भोत्तरो वा शलेष्मासःवायु)

5. स्त्रपतः प्रक्रिया: यात्यायु तस्माभिभर्से श्रेयेका: स्थेतारच घूमारच पुनः प्रयोज्यः: अन्नप्रतापः द्रिष्टिवर्तना यस्ते वर्तेति रुद्रकेवदनप्रलेपे अभीलु

6. पूर्वविनिवर्तति रोगांस्तेषां यशोकां विशिष्टां रागिन्यं नत्तन्मर्ने भिषंशिशिरोक्षेपाति पिषालिकां
नुरूणा संवाहदु दोषास्तायनो विः सुहलवच्चत्या शम्भंति

7. बदनप्रलेपात्त आदेशेशविवर्तकरे कपालमारं नस्ता: कृत्यन्तरोगिसक्तं धृतग्रहेशीर्षिः
रुद्रकेवदनिवर्ततवयं च वदनप्रलेपानं अंगुलस्य चुलभिणो [सभी]

8. मुखलेपो विलोक्यते अद्वित्यमस्तु निर्बहा: स्याद्वश्य। भवेत यस्तं 
सार्वश्रेष्ठप्राणे त्रिक्षां
मुखलेपे च नित्यां सितोपलास कौतनगैरिकनाय प्रत्यक्तगौलायुहेतुदास पुनः विवाहायव्यायः नहं
1. जननिय नन: शिलालं कुलाजय संभोगरे । फलं च संकीरके त्रैरूकदलच्छ
स्याच्छार्जया शाकरया विमिषा इध्याकु विनटुरः। प्रदिष्टा: कक्षार्यं।

2. रोगरात्नी धितालकैत्तन्यन समन्तापमुलात्मत्रध्विकेन देशायुः
कंडितलु ध्वितस्मातोविद्यामभायं। तरं बृहतः समाजः।

3. लक्ष्ययाति। अभिकरसंज्ञनाटन: शिलारीति कुमसमभागः।
ईशन्नरिथिसंहि यादवुः।

Leaf 5 (reverse)

1. प्रत्यक्षकसुने च हरितं विपरे-त्युनिना चतसर्गीयम्। अंजनधालको यथतुचुजवाच्याम्।

2. प्रेम्यां क्रिये मोक्षधर्मसा वायुव्यम् विष्णुशिवदृष्टं भवत्यकालपलितं
बृहस्पति जरसा महेतु प्रायेरा श्रेष्ठला नवरिह्याया। शाल्य।

3. निधेष्यितो रजो दुष्य स्वर्गं च व्रतस्तवत्विपोषणा के श्रुव्यभिरति। प्रक्ति: न ध्रुमंति
तत: के श्रुव्यस्वाभावेन्दुकितः। स्त्रिया: पुस्तामतो। धिति विध्यसिः रक्तविस्थितः प्रवाहः।

4. तक्ष्यालगिनि। रक्तविस्तं कुशते गिरे। निष्केशं ताम्रालं वाक्षित्यं विष्णुस्विभिन्नमुः
तद्रुम्यितं मांडूः। तवं सम्यकप्रचरे राजसिल्पाते पुर्वं बुद्धि वेच्य्येवसिः।

5. दुष्टरोगिष्टस्मार्गमयादिक्षया हिला यथो। पश्चात्प्रायं कोष:। प्रयोजयले।
6. प्रतापनासा केशाणा यथा दोषहरा हिला। ॥ ७। स्वाद्भवशेरणेपेदे महर्षिकातिम्
सानीरुपाचरेरुपीरा-केललेते वि यथाबलम् प्राम्यन्योदकर से। सगुरुः सप

7. लाशदुनिः अम्बलकसिप्तोष्यमधुरेश्वरेष्व्रिज्या गोचरारा लय: सुरंगमुद्रां ध्रुममिवृ
रसान्नापि व्रकामतं वा तकारे बहु सेह सदुं च वा पय: पिवेन्द्र श्ूग्वेश्वरेष्व्रिज्या

8. द्वाष्ट्रेणोपिप्पलिभार्गिनि: रुद्रेशेलल्युतो लेते हिलेन महर्षिकातिमाये पिपालीमाहाताजानी
ढीढी पुष्कर चित्रके: सासैन्यान्मिदं चूर्ण दिं महर्षिकातिमाये

9. पत्नानि कृत्येश्वेशतप्रकरकायार जलाके चतुरागिग्यमे पुते द्रष्यातुड पतल्यगे
-स्वेनिष्ट्रकलामें विपवलीविशिन्चित्रके: युक्तलेलपतेश्वरायि

10. संयंतं अर्द्धितप्रचेत चलुरिरण चन्द्रनीचार्धिके च दिमः घुमुपिपालिभार्री इ
टवा लिख्रातु हासुनान। दशामूलकाण्यसे भागीकिल्कं इतूत पवेत

11. -- -- -- -- -- -- -- वातकासुनुत करस्तकाधि रसप्रस्तो प्युदवस्तं वृहवं पवेत पुनर्विलायायि
कलित: तलायं वातकासुनुत भागीकिल्कं इतूत-साधकतिक्ष्वत-दृशिक्षानुरूपः

12. भा० द्रव्यमित्रगुरुगितं वातकास्तहत् परम् पैतिके सर्विष्ण: पाणि
हिलं स्पाद्यस्विरेचनम्
Leaf 5

Obverse

if the blood becomes painful or vitiated or emitted, face plasters should be applied, at the same time that some oleaginous substance is given as a purgative and various secretories administered to the nose. Bark and leaves of cinnamon, ṁamsi, nāta, and white sandal, realgar, vyaghra khas, harenu, tamarind, kuṣṭha, the tulasi plant, and the turmerics, applied as a face-plaster, act as remedies against poison ...

(certain face power formulas) .......

Reverse

(Concluding lines)

A powder made of long pepper, moruta, cumin, sādi, puṣkara, and plumbago root, and mixed with rock salt, is beneficial to sufferers from cough due to derangement of the air.

Boil thirty pālas of kantakāri in one adhaka of water, till it is reduced to one fourth of its original quantity, and after straining it, add an equal number of pala of treacle in a water-jar: then, with powders of dry ginger, ḫṛgi, cardamoms, long pepper, sādi, and plumbago root, and with four pālas of clarified butter and oil, boil it till it attains to the consistency of linctus and when it has become cold, add two pālas of honey and one pāla of powdered long pepper, and then lick it as remedy against cough. Boil a paste of ḫṛgi and clarified butter with an infusion of the daśamūla in the broth of a cook or a partridge. This is an excellent remedy for cough.

In the case of a bilious cough the drinking of clarified butter, together with the use of purgatives is beneficial.

Content of the Navanitakam/Siddhasamkrśa (Part two of the Bower Mss.)

1.0 - Introduction to the text. Reference to all the 16 chapters.

Powder of Aśvins, Magadha Powder, Haridra Powder of Aśvins, Gaudika Pills, Another Powder for medicating liquor (1.0 - 4.0).

**Second Chapter** (Formulas for Medicated Clarified Butter): Amrita-Prāśa, Kalyāṇka, Maha-Kalyāṇka, Tikta (Gṛhya), Mahā-Tikta, Panchagavya, Śatapatha, Tryusana, Vāsa, Changeri, Kantakari, Mridvika, Rasāyanikā, Sārmuliya, Mayura, Mahā-Tryusana, Chyavana Prāś, Dasāṅga, Narāchaka, Mūlaka, Lasuna, Siddhottara, Dhanvantara, Vindu, Sārsvata (4. R - 8. R).

**Third Chapter** (Formulas for Medicated Oils): Balā Oil - 3 types, Amṛta Oil, Mulaka Oil - 3 types, Sahachara Oil, Madhuyāṣṭika Oil, Aśvagandhā Oil - 2 types, Svādamstra Oil, Oil for headache, Oil for enema, Oil for nervous diseases, Oil for hair and head diseases, Oil to remove wrinkles and grey hair, Oil to cure adenia (9.0 - 12. R).

**Fourth Chapter** (Miscellaneous formulas): Cure of leprosy, Formula for astringents, Formula of Aśvins to cure haemorrhage, Four formulas for Dysentery, Twelve Formulas to cure cough due to emaciation and ulceration and other causes, Samasaktuka Gṛhya, Five formulas to cure hiccup, Eight formulas to cure cough, Prasth purgative, Medicated liquor with honey, Six formulas to cure fever, Two formulas to cure heart-diseases, Five formulas to cure headache, Three formulas to cure coryza, Four formulas to cure toothache, Six formulas to cure ear diseases, Formulas to cure skin-diseases, Four formulas for white-skin diseases, Seven formulas for strangury, Formula for epistaxis, Four formulas to cure inflammation, Five formulas for the cure of emesis, Three formulas for morbid thirst, Six formulas for secretion of urine, Four formulas for ertsipelas, Three formulas to cure jaundice (13.0 - 18. R).

**Fifth Chapter** (Formulas for Enemas): Aśvagandhā Enema - 2 types, Rasandhya Enema, Havusta Enema, Madhutailodaka Enema, Sarvasādhaka Enema, Yavana or Tailādya Enema, Pichcha Enema (19.0 - 21. R).


**Seventh Chapter** (Formulas for Gruels): 25 formulas without names, Bhela Gruel, Kalyāṇika Gruel, Aśvins Gruel (24.0).


**Tenth Chapter** (Formula for hair dyes): 11 small, unnamed formulas (27.0 - 27. R).

Twelfth Chapter The Doctrine of Bitumen (29.O).


Note: The remainder of this work, containing the chapters 15th and 16th, which were concerned with the treatment of barren women (as reported in the first introductory leaf) as well as the concluding portion of the fourteenth chapter is wanting. It might have consisted of about five leaves.