quantity of water continually ingested, a certain amount of bodily heat will be alienated, which the organism cannot lose without manifesting a resentment, either by the nervous system, as an unpleasant feeling of cold, or by some secondary derangement of more or less gravity in the digestive functions. However beneficial this effect of lowering the temperature of the body may be in the treatment of fever-complications, it will not generally add to the comfort of emaciated patients. It is, therefore, necessary to raise the plastic ingredients of the koumiss, and equally to diminish the watery parts—without, however, lessening the products of fermentation, so important through their particular sanative properties. This purpose is readily obtained by the process of artificial condensation by evaporation in the slow way, or by adding to the bulk of a good genuine milk the necessary amount of solids in a quick way.

Wanklyn's analytical results of the British koumiss show that its manufacturer has adopted these indications as guides in the preparation of the several varieties of koumiss. Thus are explained the distinctions as to consistence of the full koumiss, medium koumiss, and whey-koumiss, which again are subclassified respectively as Nos. 1, 2, and 3 koumiss, according to their age and therapeutical effects. I have in this way created a series of different koumiss-consistencies from one and the same cow's milk, and thereby realised Professor Lebert's prescriptions (on *Milch* and *Molken-Kuren*). He recommends the various sorts of natural milk in their order, determined by their chemical composition, for different stages of this disease. In such a table, sheep's milk would represent the most condensed or richest form. But it is superfluous to recall the great difference between a natural milk and the corresponding koumiss, as we know that even the heaviest milk, when converted into koumiss, becomes easily digestible.

Medium koumiss stands the nearest to the composition of mare's-milk koumiss; but I preferred even herein to make a slight alteration in favour of our patients. This consists in fixing the amount of casein and sugar a little higher than in mare's milk, and the mineral salts somewhat higher than in full koumiss. This medium koumiss requires the greatest care and attention; but it is the most palatable and pleasant form of koumiss.

Both sorts of cow's koumiss, full and medium, are, in their general properties, more or less alike; but the aperient property of No. 1 is far more pronounced in the "full" koumiss. We obtain here from both kinds, when properly used, the same, and sometimes even speedier, effects, from proportionately small quantities, than in Tartary from large amounts. We may even be compelled to restrict the diet of patients to koumiss alone; and, contrary to our expectation, more particularly in these cases we obtain the most striking results. Patients themselves even are at first very incredulous about the ability of maintaining their body in good working order upon an exclusive diet of koumiss; but a different opinion comes over them in a few days, as their taste for it improves, and their weight increases. It needs often all the persuasive power of a physician to keep his patient to an exclusive diet of koumiss. There is mostly a longing for some supplementary solid food, as the fact of koumiss being a nutriment and medicine combined is at first difficult to be believed.

Respite from labour and anxieties of business, we know, will always add to the efficiency of any treatment, and more particularly to that of a dietetic one. Purity of air and suitable temperature are both requirements for which great sacrifices of personal convenience are justifiable; but the climate of any country will be suitable for koumiss-treatment by adjusting the kind and dose of koumiss to the attendant circumstances.

As it may be interesting to the reader to hear the opinion of some trustworthy authority on the above points, I quote the following description from Baron Dr. De Maydell's book on *Orenburg*, where he resided for upwards of six years—a book difficult of access in this country. "Magis æstate caloribus acerrimisque tempore hiberno frigoris, quæ tantopere invicem se excipiunt, præcipue accidit, ut inflammationes varii generis, præsertim organorum respiratorii insertum, tam crebro Orenburgi reperiri soleant." Apoplexy and dysentery are frequent, in consequence of the great barometrical variations; and "febris intermittens," says he, "omnino endemica existit, atque ita Orenburgi domicilium suum fixisse videtur, ut non nisi paucos ex incolis reperias, qui eo morbo nunquam laboraverint." Any disease, indeed, may become complicated with or end in intermittent or gastric fever. The question here suggests itself, whether the frequency of intermittents tends to promote an immunity from phthisis. I believe in the negative, because otherwise all malarial places would be exempt from phthisis.

If there be occasional cases of inflammations of the lungs as a consequence of the vicissitudes of the climate, then there must be also cases where pneumonia passes into phthisis. My researches on this point proved the affirmative. There is often observed a want of reso-

lution of the disease in native patients suffering from pneumonia, which presents, in its chronic state, the character of phthisis, locally and generally. But the native instinct and popular belief in the restorative power of koumiss are so great, that invalids prescribe it for themselves, and are rewarded for their faith by speedy and marvellous effects in the improvement of their health. The same must be said of chronic bronchitis.

Baron de Maydell says, in reference to the above: "Phthisis pulmonalis non ita rarò occurrit (Orenburgi), effecta illa quidem iisdem quibus pulmonum inflammationes causis. Ea vel ut exitus inflammationis pulmonum apparet, vel, nullâ inflammatione progressâ, continuâ istarum rerum nocentium vi progenitâ intrare solet. Remedium Orenburgi semper adversus hanc affectionem adhibitum, eamque ob causam haud immerito tantis laudibus celebratum, in potione quâdam consistit ex lacte equino paratâ, nomineque koumiss appellatâ. . . . Phthisis, is quidem ab iis discesserimus casibus, ubi syphiliticum malum jam inveteratum haud dubiè a Russis ad Kirgisos translatum ad affectiones cariosæ subsequebantur, ego ne semel quidem observavi, unde omnino raro invenivi, nequaquam infiteor, tamen, non nisi rarum fore, inde concludas, quod Kirgisi per totam ætatem potione illâ kumis dictâ utuntur, quam quidem omnia quæ in promptu sunt ad phthises oppugnandas medicamenta longe superare, non est, quod negemus. Ea potio ex lacte equino paratur, quod sibi illud peculiari vindicat, ut nunquam coagulet et brevi tempore in fermentationem spirituosam abeat. Sapore potio illa perquam jucundo excellit, quo accidit, quod admodum est nutritibilis et immensa ejus copia sine damno hauriri potest. Quæ potionem sumptam subsequuntur phenomena, inclinatio ad dormiendum, adactus toto corpore calor, sudor atque urinæ aquaticæ secretio solito largiori afferenda erunt, quo pressionis cujusdam sensus in vesicâ urinariâ perceptus additur, qui tamen initio tantum animadversus, brevi totus evanescit. Potionis usum si per aliquod tempus continuaveris, coeundi desiderium accrescit, pectora existit, quæ ne noxiam vim inferat, multum ut corpus moveas et agites, efflagitat, simulque corpus pinguis obesusque redditur. Itaque uti morbi, in quibus potus kumis incredibili celeritate opem afferat, omnes opus est, ut in libero aëre, sicuti in tabernaculo, vivas, nullo cibo nisi carnibus vescaris, multumque corpus moveas."

I will not, however, discuss here the physiological properties of koumiss, as I have already described them in my several publications on the subject. What I wish to impress upon my brethren is:

1. That the climate itself of Tartary does not give immunity from phthisis, and hence mere residence there would fail to benefit consumptive patients.
2. That the exemption of Tartary, Iceland, and Shetland from phthisis is not a mere coincidence, but arises from one and the same cause, which is common to all three of those countries—viz., the general use of koumiss by the inhabitants.
3. That koumiss alone in Tartary prevents and arrests all those morbid conditions of the body which are the usual precursors of consumption.
4. That the most favoured spot in these British islands for a consumptive patient is his or her own comfortable home, since koumiss can be brought there to work out its marvellous curative power, and thus justify the tribute which Dr. Ucke and others pay to its virtues in styling it "a most excellent, if not the best, remedy for phthisis, both on account of its nourishing properties and healing effects upon the mucous membranes."

REMOVAL OF THE UVULA.

By E. NOBLE SMITH, L.R.C.P., M.R.C.S.

I AM induced to bring this subject before the profession for the following reason. Twenty years ago, the late Mr. Yearsley published these remarks. "*Excision of the Uvula*. In order to gain all the advantages, and insure no disadvantage, from this operation, it is necessary that the whole of the uvula should be removed, and not part only, as has been the usual practice. It is owing to this partial removal that patients have occasionally been sadly inconvenienced by the irritation kept up, by the food in its passage through the isthmus striking against the amputated surface. In consequence of such result, Dr. Bennati, a talented physician of Paris, who some years ago used to amputate the extremity of the uvula in singers, discontinued the practice. In the numerous cases in which I have performed *total excision*, I have never seen such a result. It may therefore be set down as an axiom that *shortening* or *snipping* the uvula is a most objectionable operation; whereas its entire removal, by which the palatine arches are thrown into one, is an operation which in suitable cases is to be commended.

The utmost pains have been taken to ascertain the results of loss of the uvula; but in no one case can I find that the slightest inconvenience has arisen from its removal. The fact that the removal of the uvula involves no subsequent inconvenience to the patient, is of itself of the greatest interest both in a physiological and a practical point of view."

Notwithstanding this sound advice, there still remain many members of the profession who practice snipping or partial removal; to the detriment of both patient and practitioner, and with the result of causing the public strongly to oppose operative interference. I have lately met with numerous cases in which patients have submitted to what was styled removal of the uvula, proving, however, but a *partial* removal. The consequence has been that the raw surface has remained dangling, irritated by every morsel of food that passed down the throat; and in some cases inflammation has arisen, spreading to the throat and larynx; weeks of suffering have occasionally followed, terminating generally by leaving the uvula as long as it was before the operation.

It is not surprising to find this remedy often condemned, upon the following grounds; viz., that it causes much pain and suffering, and is of no permanent benefit, for the organ almost invariably grows again. Not only is it thus, but very many members of the profession are impressed with the idea that excision of the uvula is an unjustifiable, or rather an useless, operation, and they have, therefore, discontinued it; others, more persevering, have resorted to repeated snipping, with a uniform result of re-growth. With regard to entire removal, which I have always practised, the possibility of detrimental hæmorrhage is advanced as an objection; and I believe some cases are upon record where the excision has been followed by unpleasant results. Patients have been known to bleed to death after the removal of a tooth; but that fact would scarcely be a sufficient argument to deter any one from the operation of tooth-drawing. In the loss of either an uvula or a tooth, common precautions would avert so unfortunate an event.

All the cases in which I have removed the uvula have resulted satisfactorily; and I have experienced the good fortune of not having had any in which the bleeding has not been almost immediately stopped by cold water gargle. In one case, the patient had an enormously enlarged uvula, half an inch in thickness, and extremely vascular. I feared that the removal might possibly cause some troublesome bleeding, so I had in readiness some of the strong liquor ferri perchloridi with which to touch the wound; but I found its use quite unnecessary, as the hæmorrhage stopped in a very few moments. If in any case iron failed, I should apply a wire-ligature, which could be very easily done with an instrument that I have had made for excising very vascular uvulas; a description of which I hope to give upon some future occasion.

The following cases are, I think, worth recording, in order to illustrate another feature of the malady, to which I wish to call the attention of the profession.

T. B., aged 34, had apparently been a powerful man; but, at the time when he applied for treatment at St. Mary's Hospital, in the middle of June, 1868, he appeared to be suffering from advanced phthisis. He was extremely emaciated, and had a distressing cough, which had commenced in April, and continued in spite of all treatment. He had been losing flesh and strength rapidly, and had just previously been treated, he said, for consumption at an eminent hospital. I examined his lungs, and was surprised to find no sign of disease. I then looked at his throat, and found an extremely elongated uvula; the throat was also inflamed. I prescribed chlorate of potash and bark, and astringent gargles; but the uvula remaining enlarged, I cut it off. From that moment the cough stopped, and the man continued to improve until August 25th, when he was quite well and strong.

I have had many patients who have been undergoing treatment for lung-disease, whose maladies ceased with the removal of the uvula. The following case is instructive.

Avice K., aged 11, came under my care Sept. 22nd, 1870. During the summer of 1869 she had suffered from a severe attack of measles, which had left her in a very weak condition, with a suspicious cough, which had continued unabated until the time I saw her. She had for several weeks suffered from such severe nausea and vomiting, that only a minute quantity of nourishment had been taken, and she was, consequently, worn out, and in a moribund condition. Her sufferings were attributed to phthisis, her mother having died from that disease. Upon examination, I found evidence of tubercular deposit in both lungs, but to such a slight extent, that the cause of her extreme illness had to be sought elsewhere. I examined her throat, and found the uvula, much elongated, resting upon the tongue. After the administration of an astringent to the throat for a few days, I removed the uvula. Upon the following day, the cough and sickness had almost entirely left her, only a slight soreness remaining. From this time she steadily improved. This year, however, the tubercular disease has become fully developed,

and now (December 1871) the little patient is rapidly approaching death—a victim to the natural process of a dire disease, having escaped an earlier and more painful end.

These facts are important, as they show how necessary it is to diagnose rightly a disorder which is capable of producing such serious results. I will not venture to assert that any one has ever been allowed to die of an affection that may be so easily cured, but the above cases show the possibility of such an occurrence.

ON THE LOCAL TREATMENT OF ANTHRAX BY STRAPPING.

By GEORGE A. GLOAG, L.K.Q.C.P.,

Surgeon to the Bristol Dispensary.

IN illustration of the advantages to be derived in the treatment of anthrax by strapping, I shall quote some details of a case that was lately under my care, in which strapping was the only local treatment adopted. J. Davis, aged 52, by occupation a shop-assistant, first came under my notice on November 29th, 1871. He had been attending as an out-patient at the Bristol General Hospital for some days previously, but walking caused him so much pain that he was obliged to procure surgical attendance at his own home. He was suffering from a large anthrax on the back, its centre being situated near the inferior angle of the left scapula. The tumour presented a diameter of six inches; it was of a dusky red colour, hard, and of a circular shape. A number of small openings appeared on the surface, through which a grey coloured substance could be discerned. The constitutional disturbance was considerable; he suffered great pain, and was unable to sleep. I ordered him tonics and opiates internally, and applied the pressure-treatment by strapping, on the 30th November, and on each succeeding day, until the 23rd December, when it became no longer necessary, all discharge having ceased. Each time I applied the strapping a quantity of tenacious yellow matter was pressed out of the little openings on the surface. These openings had no tendency to coalesce, as is often the case, and no more integument was ultimately destroyed than a sixpence would cover. I was enabled to hasten the removal of portions of the slough or core each day with a fine pair of forceps.

I have seen the pressure-treatment of anthrax employed by Dr. Edward Hamilton in Dr. Steevens's Hospital, Dublin, in a large number of severe cases, and with such success that I did not know a death to occur in consequence of that disease during the four years that I attended the hospital. The advantages of the pressure-treatment of anthrax, over incision or cauterisation, are, that it is safer and more rapid; prevents, to a great extent, the destruction of integument; and is more agreeable to the patient. I believe the action of strapping to be twofold; firstly, it acts like the pressure-treatment of orchitis, by emptying and supporting the vessels; and, secondly, by pressing out the peculiar exudation, which closely resembles slough, but which it can hardly be, because it is circumscribed, and quite free from unpleasant smell. This mode of treatment, to be of use, must be fully carried out; the sides of the anthrax must be drawn together by broad strips of sticking-plaster, with all the force that the surgeon can exercise or the plaster will bear. Nothing less is of any utility. The mode of strapping a large anthrax is to cut the plaster in strips about two feet long—one half of each strip being about two inches wide and the other about an inch and a half. These are applied in pairs, by making the broad ends adhere to the skin on opposite sides of the anthrax, in such a manner that, when the narrow ends of the plaster are drawn together, they shall pass over the tumour, the narrow part of one strip of plaster meeting the edge of the broad part of the plaster of the opposite side, thereby giving the appearance as if one strip of plaster three inches and a half wide had been applied. About eight of these strips are to be thus put on, so that they shall present a stellate arrangement, with the centre corresponding to the apex of the tumour. The anthrax will require to be dressed every day; the strips of plaster are to be removed, and the part sponged with warm water, to remove any discharge that may have exuded from the small openings on its surface; after which, I have found it advantageous to rub the surrounding skin with a little lint dipped in turpentine, to remove any sticky matter that adheres to it from the plaster. The pain which the strapping causes at first is soon succeeded by a feeling of comfort and support. I believe that the growth of an anthrax may be considerably curtailed by early strapping; and I am of opinion that this method of treatment, when the situation of the anthrax will admit it, and if properly carried out, will be found more efficacious than any other; and I would strongly recommend those who have not yet done so, to give it an unprejudiced trial.