cellent culture medium for various pathogenic germs which may ultimately be absorbed into the lymphatic system.

2. That when a tonsil shows itself competent at short intervals to become inflamed and give rise to peritonsillar abscess.

3. Where the tonsil is so situated that it is a matter of great difficulty as well as danger to use the tonsillitome, and from extensive adhesion of the pillars, likely to cause severe hæmorrhage by their being cut.

4. In all cases where the patient is of a hæmorrhagic diathesis or in other cases in which alarming hæmorrhage is feared.

5. Where patients will not consent to the use of the knife and yet the demand for the removal of the gland is imperative.

NOTES ON ARISTOL IN THE TREATMENT OF THE DISEASES OF THE NOSE AND THROAT.

Read in the Section of Laryngology and Otology, at the Forty-second Annual Meeting of the American Medical Association, held at Washington, D. C., May 6, 1891.

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Nearly every month a new antiseptic is presented to the medical profession, each claiming to outdo all its predecessors and to be perfect in all its attainments.

But experiments have proved most of them to have one or more obnoxious qualities that greatly interfere with their usefulness in the sphere for which they have been recommended.

One, if used in sufficient strength to become a true antiseptic, is found to be a local irritant.

Another corrodes the instruments and unless great care is used will poison both the patient and the operator.

A third is accompanied by an odor so pungent and disagreeable that few patients will submit to it, and the usefulness of still another is greatly lessened by the staining to hands and clothing that results from its use.

All of the earlier antiseptics were handicapped by their poisonous qualities, and consequently could only be used to a limited extent.

Aristol, one of the more recent ones, possesses some qualities that have attracted the attention of various observers, and a combination of the drug has been suggested by the writer that is bringing about good results both in nasal and in general surgery, and which will be described in a later part of this paper.

Aristol is a combination of iodine and thymol, and is known as an iodide of thymol.

It was first suggested by Drs. Messinger and Vortman, of Aix-la-Chapelle, as a substitute for iodoform.

It is described as a "fine yellowish red powder which is inodorous and nontoxic."

It is insoluble in glycerine and very sparingly in alcohol, but very soluble in ether, chloroform, and fatty oils.

It is decomposed by heat and by light, and after decomposition its odor is similar to that of iodoform. Reports of its use, in the treatment of diseases of the skin, ear and mucous membranes of the nose, throat, and vagina, have come from various sources and the consensus of opinion is that it is nontoxic, and that its antiseptic properties are equal to, and in some cases superior to iodoform.

Lowenstein¹ used it, in three cases of simple ozæna by insufflation and says "after a few days the fetor had disappeared, the formation of crusts was reduced and the headache ceased".

He has also used it in solution with ether in the proportion of a dram to the ounce with good results.

Hughes² also used it by insufflation in nine cases of rhino-pharyngitis, accompanied by ozæna, and reports great relief in all the cases; the fetor was greatly reduced, and the crusts were easily removed. He believes it to have the power to stimulate the secretion of mucous membranes.

Rhorer³ reports twenty cases of acute catarrhal otitis media, treated with insufflations of aristol in powder and notes that the secretion is quickly reduced in quantity; the mucous membrane of the middle ear becomes smooth, and the swelling disappears in a few days; the perforation heals if there was no great loss of substance.

Brocq⁴ reports a case of large ulcerating superficial epithelioma of the face rapidly cicatrized by the use of aristol, and believes it to possess the power of causing rapid cicatrization superior to anything that has heretofore been used in similar cases, but does not consider it a specific for the disease. He further remarks "that the most remarkable evidence of the cicatricial power of aristol is observed in superficial ulcerations of a tuberculous origin."

Thus in a case of elephantiasis of the foot the ulcerations, which had been treated for a long time with lactic acid, camphor, naphthol, and iodoform, respectively, were cicatrized within a fortnight by the application of powdered aristol.

Another tuberculous ulcer developing on an old scrofulo-tuberculous cicatrix, has been healed in twelve days.

It has also been used by Gaudin, Seifert, Erchhoff, Schirren, and Neisser in various skin affections.

The method of using it has been chiefly in

¹ Int. Klin. Rundschau, May, 1890.

² Dr. Med. Woch. 1890, Nos. 10 and 19.

³ Archives Internationales de Laryngologie, 1890, No. 2.

⁴ Bull. and mem. de la société, médicale des Hôpitaux de Paris, May 1, 1890.

powder, but in some instances it has been made into ointment, in varying proportions and, when a solution was required, in ether, chloroform or flexible collodion.

My experience with the drug dates from August 1890. I first used it at the Manhattan Eye and Ear Hospital in solution with flexible collodion in the proportion of a dram to the ounce.

Several cases of chronic atrophic rhinitis with ozæna, one case of syphilitic ulceration of the septum, and one case of simple ulceration of the septum were treated with this solution by means of a cotton probe.

In the cases of ulceration of the septum the results were good, and healing was accomplished in both.

In the case of ozæna (and I speak of ozæna as a symptom, not as a disease) the results were not so satisfactory but were sufficiently good to warrant a further use of the drug. The odor was very much lessened after a few days treatment and the secretion became less inspissated.

These comparatively favorable results led to the conclusion that if aristol could be brought more thoroughly into contact with the entire surface of the diseased membranes, far more could be accomplished both in correcting the disagreeable odor and perhaps destroying the cause of it by bringing the membrane into a healthier condition.

To bring this about, no matter what remedy is to be used it stands to reason that it must be brought into contact with the entire diseased surface, and as a rule, a very large surface of the nasal tract is in a diseased condition in cases of chronic atrophic rhinitis.

The anatomy of the nasal cavities with their various projections, depressions, processes and fossæ, is such that a thorough application cannot be made by a cotton probe.

Treatment by insufflations as recommended by several of the gentlemen previously mentioned is preferable, and I have resorted to it in several cases, but found it difficult to make a thorough application without using a large quantity of the drug, much of which would be wasted, and its expense will not allow of waste.

It has become an axiom in the treatment of nasal diseases that, of all the methods resorted to for local medication, none are to be compared either for convenience, thoroughness, or effectiveness, with the spray.

Believing this to be true and believing also that, if aristol could be used in the nasal cavities by means of a spray, much more could be accomplished in the treatment of the cases under consideration, I endeavored to get a solution of the drug that could be used for spraying and would at the same time remain permanent.

Knowing that the liquid petroleum products have deservedly largely taken the place of aque-

ous solutions for spraying purposes; and knowing also that the same principles that obtain when menthol, eucalyptol, etc., are used in solution with liquid petroleum would hold good with aristol, I succeeded in having a solution made that is applicable for spraying purposes.

Aristol is not soluble in any form of liquid petroleum, but with care a solution can be made by first dissolving the aristol in a small quantity of pure almond oil, afterwards adding the liquid petroleum.

A solution of thirty to forty grains to the ounce answers for all nasal requirements. It is well to flavor with a little oil of wintergreen.

I have treated twenty-two cases of ozæna with the spray as above described. Twenty of these are the ordinary type of this condition, one is due to inherited syphilis with an obstruction due to a deflected bony septum, and with a partial adhesion of the soft palate to the posterior wall of the pharynx, and the other case is supposed to have a piece of zinc plate imbedded in some portion of the nasal tract which I have been unable to find. In this case the odor was so fetid that the patient could detect it herself.

In fact, all of these cases are of a severe type, and presented large collections of inspissated crusts. At the first visit the crusts were removed before using the aristol spray, but afterwards little was done except to use the spray.

The patients are taught how to use the spray properly at home and are directed to use it night and morning. Much depends upon the way it is used, and patients should be instructed to inhale the spray.

The results so far obtained have been similar in all the cases.

The odor of the breath in every case has entirely disappeared in from two to five days, and has not returned, but the cases are still using the remedy. Consequently it is impossible to state how permanent this result is. However, if the ozæna can be held in check only by the daily use of aristol, more is accomplished than ever has been done before.

The formation of crusts, has, also, been greatly lessened in every case; a fact that is probably due to the stimulation of secretion caused by this drug.

It is certainly true that aristol excites a copious secretion from all mucous membranes, but the secretion is less noticeable from the nasal than from other membranes, notably the urethra.

This power to induce a more copious, and therefore a healthier secretion lessens the formation of crusts, and by so doing it also lessens the odor which comes from the decomposition of the secretion.

This result tends to a healthier condition of the membranes because the secretions do not remain in contact with them until they decompose.

I venture to predict that if aristol proves to be possessed of actual curative properties in catarhal diseases the results will come from its power to stimulate secretion as well as from its disinfectant properties. That it is a useful agent cannot be denied, but conclusive judgment cannot be passed until it has been given a longer trial.
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PHYSICAL CULTURE A NECESSITY.

*Introductory Lecture delivered at Rush Medical College, Chicago.
Sept. 29, 1891.*

BY JOHN B. HAMILTON, M.D., LL.D.,

Gentlemen:—I am deputed by my colleagues to bid you welcome to these halls, and to this oldest medical school of the Northwest.

It ushers in its forty-ninth annual course, with every prospect that the new requirements of advanced general scholarship, as preliminary to admission, are being well met, and that a solid advance has been made in the attainments of the medical students of this metropolis.

We welcome you, then, as more nearly *frater* than *discipulus*, and it will be understood that the educational seed sown hereafter will fall upon soil well prepared, and coming as you do from different environment, and perhaps to a more artificial life, I do not know that I can on this occasion render you a better service than to direct your attention to the necessity of caring for your body not less than for your minds. The mental digestion of a student corresponds very closely to the physiological digestion, and many a man has failed to become a learned man from physical disability alone.

You may occasionally read of a soured misanthropic dyspeptic like Carlyle; whose mental activity is very great; but such a person is an exception, a veritable *lusus naturæ*. The rule is that the better care taken of the body the more perfect the mental processes. Dyspeptics are usually made not born such.

As preliminary, then, to the study of the practice of the art, I will for this evening's lecture take up the subject of

PHYSICAL CULTURE, ANCIENT AND MODERN.

Within a few years there has been much said in America on the subject of physical education. It had begun to be apparent that, with all our boasted progress in wisdom, in general intelligence, and in the arts and sciences, we had omitted from our curriculum any study having for its object the systematic training of the body.

The body cannot become a perfectly working machine without culture or training, any more than the mind can become intellectually expert without that drill which we call education. We do not look for able logicians in those who have not had mental exercise. We ought not to ex-

pect sound bodies in persons whose every free and natural movement has been repressed in childhood, cramped by fashion, and neglected throughout life.

It is not a pessimistic view of the case to consider that one fourth of our population of military age probably could not pass a physical examination as recruits. It is probably within bounds to say that a majority of persons thus disqualified have become so from neglect of muscular exercise. The hollow-chested consumptive was not long since the type of the scholar, and the moral of this lesson was to teach people to avoid schools, for fear of the production of physical deformity or imbecility. It was this feeling that college graduates were unfitted to deal with the rough elements of daily life in the world, that brought about the changed sentiment whereby our colleges now encourage manly sports and exercises. Like all reforms, when once instituted it may go too far, yet with all our knowledge on the subject, few private or public primary schools devote any appreciable time to the cultivation of sound bodies. This is left to chance. What would become of the mind similarly neglected? Are we prepared to admit that the mind is inferior to the body? We cultivate and stimulate one, and mortify and neglect the other. The brain cannot live without the spinal cord and sympathetic ganglia, and healthy, active circulation is necessary to cause clear, vigorous, mental actions. Is it not then of first consequence that our primary education should begin with training the muscles, the nerves, the eye, the ear and the hand at the same time we commence to stimulate the brain by precept.

"*Ut sit mens sana in corpore sano.*" "Let me have a sound mind in a healthy body," says Juvenal, in his prayer to the gods, and there is but little doubt that the ancients thoroughly understood the philosophy of the case; but it was "professionalism" that ruined the Grecian gymnasias and transformed the manly athlete into a commercial harlequin, or a repulsive brute.

The physical welfare of the people has been one of the chief cares of states since the organization of governments among men. First for physical self defence, and second for conquest, and it has been found that where the highest types of men existed, there also were found examples of the highest type of the human intellect. The poetry of Homer grew on the same soil that produced Leonidas and his hardy veterans, and viewing Greece as a whole, without reference to the internecine wars and minor differences which separated it in states, we may truthfully affirm that the same civilization that produced the Spartan may justly display at Athens the art of Praxiteles and Phidias, the eloquence of Demosthenes, the wisdom of Socrates, the jurisprudence of