months; and was troubled in the right eye by obstinate epiphora, and the oozing out through the puncta of a turbid muco-purulent discharge. Over the region of the sac was noticed a moderate, circumscribed swelling, which was elastic to the touch, and, on firmer pressure with the finger, a quantity of discharge could be pressed out through the puncta, the finger at the same time sinking into the skin. The distension of the sac and the amount of lachrymation and discharge varied greatly with the changes in the temperature. As long as the weather was warm and dry, she was free from any trouble; but as soon as she exposed herself to a cold wind or damp atmosphere the sac became swollen and somewhat inflamed, and the discharge thicker and more copious. I divided the lower punctum and canaliculus, and, on passing a probe, found a slight stricture at the top of the nasal duct. In spite, however, of long-continued and diligent treatment by probing, and the use of astringent injections, the disease persisted, fluctuating, however, greatly in its intensity; at one time being greatly ameliorated for several weeks, and then, on the least exposure, recurring with all its former severity.

At length I performed, in last November, Stilling's operation, and with complete success; for, as you observe, there is now not the slightest swelling of the sac, nor any trace of lachrymation or discharge upon firm pressure.* Dr. Stilling's operation† consists in dividing the punctum and canaliculus, and then passing a probe to ascertain the exact seat of stricture; the probe is then withdrawn, and a short triangular knife‡ (Fig. 3) passed down to the seat of stricture, and the latter incised in three or four directions. The knife is then withdrawn, the probe reintroduced, and if another stricture is found further down, this is also divided. In this case I performed Dr. Warlomont's§ modification of Stilling's operation. After slitting up the upper punctum and canaliculus with Weber's knife, I passed down the small end of Weber's biconical sound (Fig. 4) through the sac down into the nasal duct, so as to dilate this widely. On withdrawal of the sound, I passed Stilling's knife quite down into the nasal duct, so that the whole blade disappeared, and then incised the duct in three or four directions, until the knife could be freely turned in all directions. The operation was followed by a good deal of swelling and ecchymosis; but a great improvement in the affection was soon apparent, and in a few weeks it was completely cured, without any subsequent treatment, by probes, injections, &c. The favourable action of this operation appears to be chiefly due to its affording a very free exit to the contents of the sac. As it is very painful, chloroform should always be given. I have tried this operation in numerous cases of obstinate blennorrhœa of the sac and stricture of the lachrymal passages with varying success. The above is the only case in which I have obtained a complete and apparently permanent success. In most of the others considerable benefit was derived; but the operation had to be supplemented by the occasional use of probes or Weber's sound, and of injections, which subsequently led to favourable results. I have found it answer best in cases of obstinate chronic blennorrhœa of the sac, accompanied by a copious secretion of muco-purulent discharge, and but a slight stricture. In such, a permanent and very free exit is thus permitted for the escape of the pus.

FIG. 3.

FIG. 4.

* The cure has lasted to the time of publication of this lecture.

† Vide Dr. Stilling's *brochure*, "Ueber die Heilung der Verengerungen der Thränenwege mittelst der inneren Incision." Cassel, 1868.

‡ The blade of the knife is 13 mm. long, 3 mm. broad nearest the handle, and gradually diminishes to $\frac{1}{2}$ mm. at the point, which is somewhat rounded, but cutting. The blade passes over into a flat stem, which is about the size of Bowman's largest probe, and is attached to the handle. The back of the blade should be made strong and rather wedge-shaped, and it should not be too highly tempered, otherwise it may easily break, or a portion be chipped off, in forcing it through the stricture, or in incising the latter. The knife is made by Messrs. Weiss.

§ Annales d'Oculistique, Oct. 1868.

ON THE USE OF TONICS IN THE TREATMENT OF CHRONIC BRONCHITIS AND EMPHYSEMA.

BY JOHN C. THOROWGOOD, M.D.,

ASSISTANT-PHYSICIAN TO THE HOSPITAL FOR DISEASES OF THE
CHEST, VICTORIA-PARK.

ALTHOUGH there is no lack in our materia medica of medicines reputed excellent for chronic bronchitis, emphysema, and those asthma-like difficulties in the breathing consequent upon these two complaints, still the undoubted fact remains that these chronic lung affections are exceedingly obstinate and hard to cure; they give way perhaps for a time under the influence of some new remedy, but it is only to return again as bad as ever, to the distress of the patient and disappointment of the doctor.

It is among those who are getting somewhat into years that we find the most numerous and marked examples of chronic bronchitis, with more or less pulmonary emphysema; and these patients, always more or less dyspnoic, are often liable to attacks of difficulty in their breathing, which they call asthma, and which at times—as, for instance, after a prolonged burst of coughing—have all the characters of true spasmodic asthma, and are, like it, due to a cramp-like closure of the bronchial muscle, resulting from the violent expiratory effort of the cough.

The general and more abiding breath difficulties of these cases of old-standing bronchitic emphysema appear, however, to be rather of a paralytic than of a spasmodic nature, and are due partly to some degree of defective primary innervation through the vagus, but more especially to impaired nutrition of the dilated air-vesicles and loss of contractile force in the bronchial muscle.

The two most common causes of this morbid state of lung are repeated attacks of chronic bronchitis, or inveterate and incurable asthma. Both these affections usually result in emphysema, with thinned and degenerative air-vesicles; and the latter, by the fits of severe spasm to which it so constantly subjects the bronchial muscle, especially tends to exhaust its nervous irritability and greatly to impair its contractile power.

It is when these evil conditions are thus developed that we find the expiration so prolonged and imperfect. It seems as if the sufferers were unable to expire sufficiently to get a proper renewal of the air pent up in their lungs, and hence arises much of their discomfort.

In a typical and aggravated case of bronchitic emphysema, resulting from asthma of twenty-five years' standing, the patient remarked to me on the agreeable feeling of relief that followed percussion of the chest, just as if the stagnant air had been thus mechanically forced out of his chest and fresh air enabled to enter in its place.

It is not long since I saw a veteran member of our profession who presented well-marked symptoms of emphysema and chronic bronchitis, and who, alluding to the fits of dyspnoea which for many years had so sorely tried him, said to me, "It is not the getting air *into* my chest, it is getting it *out* that I find so difficult."

We know that the morbid anatomy of these cases shows us greatly dilated air-vesicles with very thin walls. In a measure, the degenerating human lung comes to resemble the lung of a reptile; where, as in the turtle, the air-cells are very large, and after the lung has been gradually inflated, it is slowly emptied of the air, which issues through the glottis with a prolonged hissing sound characteristic of animals of the reptile class.

The peculiar kind of asthma which has been described by Wunderlich as gradually increasing upon the patient for days, till his chest is in a state of extreme distension, with heart and liver pushed downwards into the abdomen, appears to me an example of this same kind of dyspnoea due to loss of contractile power in the pulmonary tissue, and likely to be associated with serious emphysema and degeneration of the walls of the pulmonary vesicles.

It would be foreign to the purpose of this paper to enter more minutely into the morbid anatomy of chronic bronchitis and emphysema, or to go further into the physical signs of these diseases than is necessary for illustrating points in the treatment. I may, however, remind the reader that, under effective treatment, the actual rarefaction and air-distension of the lung-substance can be demonstrably reduced, the morbid clearness on percussion may be lessened, and the quantum of respiration improved. As lung-distension diminishes in this way, it has been pointed out by Dr. Walshe how the area of the heart's superficial dulness perceptibly increases; and all this good may be attained by the removal of bronchitis.

Undoubtedly this is very satisfactory, so far as it goes; but, from what I have observed of the progress of these chronic bronchial disorders, I am inclined to think that, in our persistent efforts with various antispasmodics and sedatives to ease the breath and cure the cough, we lose sight of those atrophic and degenerative tissue-changes which underlie the symptoms we treat, and for a time, perhaps, are fortunate enough to cure. In the instances of medical men of years and experience for whom I have had to prescribe, I have been struck to observe how persistently they had been using all manner of expectorants and sedatives, and the distrust they felt of any such tonic as iron, bark, or quinine. Among the ordinary public I have more than once been told by patients who for years had suffered in the way described, that I must not prescribe a tonic, or that iron is sure not to suit them; and yet, so far as I have been able to see from their voluminous prescriptions, I have not found that any tonic has ever been given. What it is that makes these patients so averse to a tonic remedy I have not yet found out, though for years I have been aware of the fact. One patient who was very particular in laying down the law on this subject, owned to deriving more benefit from nux vomica and phosphoric acid than from anything else; and I have learned recently that my old medical friend, to whom I recommended iron with nux vomica, is able to speak most favourably of the treatment. These two medicines—iron and nux vomica,—or else strychnine in small doses, seem to me specially beneficial where there is constant dyspnoea with prolonged expiration. The presence of expectoration and of occasional fits of severe nocturnal asthma is no drawback to their administration; and not infrequently the nux vomica will relieve these spasmodic attacks most effectually. Another medicine that is of great service, and that appears to promote nutrition, is arsenic. At times this drug will act quite like a specific in improving the breathing, as, for example, in the following case:—

Mrs. G—, aged fifty, seen July 7th, 1864, at Victoria-park Hospital. She has been three months under medical treatment; but still complains of difficulty in breathing, attacks of asthma at night, much cough, with profuse yellow expectoration. Chest extra resonant, with feeble breathing, and bronchial râles; heart healthy; much sickness at stomach, and vomiting. Ordered two drops of Fowler's solution, in alkaline infusion of calumba, three times daily.

In one week she came to say that cough and spitting had ceased, as had also the sickness; and she was soon well. On May 27th, 1867, I saw her in perfect health.

The quantity of expectorant medicine this patient had taken was remarkable, and I believe that it was the stoppage of this that certainly had something to do with the complete cure that resulted. Where iron is employed as a remedy, the tincture appears a very good preparation, and will go well with a saline such as the muriate of ammonia; or we may give the sulphate of iron with sulphate of magnesia in mint-water. As it is often desirable to maintain the action of the iron in small doses for some time, it is best not to give any form of ether with it, for this will cause dryness of the mouth, and render the patient averse to the continuance of the remedy. In the case of a man aged sixty-three, with bronchitic emphysema, and whose father died of asthma, the sulphate of iron given as above soon enabled him to lie down at night, stopped his cough, and in fact cured him, with the sole addition of five grains of compound squill pill every night for a week.

I could from my notes multiply instances to show the good that tonics, and the abolition of all expectorants and sedatives, will do in bronchitic asthma and emphysema when in the confirmed and chronic state, but feel I must

not trespass further on valuable space. I may just add that a nutritious but not bulky diet, with moderate allowance of alcohol, is an important adjunct to the medicinal treatment.

Welbeck-street, Nov. 1st, 1869.

CASE OF INTUSSUSCEPTION TREATED BY INFLATION AND DISTENSIVE ENEMA;

RECOVERY; REMARKS.

By GEORGE EASTES, M.B., F.R.C.S.

ON the 21st of April, 1869, at 11.15 A.M., I visited Miss A. B—, hitherto a healthy active girl, though pale and spare, aged eleven years, who for two days had had pain at the right side of the pelvis. She had not vomited. The bowels had been naturally relieved once daily during the last three days. No urine had passed since 6 P.M. the preceding day. I found her in bed, complaining of the above-mentioned pain. When the pelvis was firmly fixed by my hands, motion of either thigh was painless. In the hypogastric region was an elastic intra-abdominal tumour, reaching from the pubes nearly to the umbilicus, and extending upon either side of the median line for nearly two inches—evidently the distended bladder. The abdomen was elsewhere flat, and resonant upon percussion. At the tumour was dulness, with a little tenderness. Pulse 118, thin, and weak; respiration 26; temperature 98°. Thus, although the pulse and respiration were accelerated, there was no feverishness. Stating that the urine was retained, I advised a warm hip-bath.—1.40 P.M.: The bladder was emptied in the bath, and the anterior surface of the abdomen was now concave. On passing a sound, I could detect no stone; but, with the catheter, drew off about an ounce and a half of urine of natural appearance. Pain and tenderness gone. Pulse 86. In the left submaxillary region patches of skin are reddened. Tongue pale, not furred. The patient is to remain in bed all day; to have plain diet without beer; and a dose of potash and henbane mixture every four hours.—9.30 P.M.: Patches of erythema fugax have appeared on the face, trunk, and limbs. Ordered the following mixture: Sulphate of magnesia, half an ounce; carbonate of magnesia, forty grains; compound tincture of cardamoms, two drachms; syrup of ginger, half an ounce; peppermint water to four ounces: half an ounce every four hours.

April 22nd.—11 A.M.: Erythema not lessened. She has passed urine frequently, and has no uneasiness at the pelvis. Pulse 86. Two doses of mixture have been taken; bowels not relieved. To remain in bed all day, and continue magnesia mixture.

23rd.—10.30 A.M.: Erythema vanishing; pulse 84; tongue pale; micturition natural. The bowels having been plentifully opened four times, I directed the mixture, of which five doses in all had been swallowed, to be discontinued.

24th.—11.30 A.M.: Four or five loose motions were passed during the latter half of yesterday, and she was faint and unable to support herself when attempting to sit up after dinner. Her appetite is poor; abdominal pain ceased; pulse 86; erythema invisible. To take three times a day a tablespoonful of tonic mixture of acid and chinchona.

25th.—1 P.M.: She was again very faint whilst sitting yesterday afternoon. Went to stool five times during the day, and in the evening vomited once after a meal. Shortly afterwards a sudden violent spasmodic abdominal pain began, which caused her to utter a little scream and faint. The pain has since recurred in paroxysms, separated by intervals of almost perfect ease, lasting about thirty minutes. Has not vomited again, and her stomach has retained milk, tea, &c. There have been frequent calls to and straining at stool—as many as four since 7 A.M. Being shown what passed on the last occasion (mixed with a little urine), as an average specimen of the other motions, I found it measure about two ounces, being of ordinary faecal colour, soft and affluent. No blood, her mother is perfectly assured, has come from her. The abdomen is tender. There is dulness upon percussion, with firm resistance to pressure, over the right iliac fossa, as far as to the median line above the pubes, and nearly to the level of the umbili-