on this subject that division or scarification of the *mucous membrane only* is sufficient. It is difficult to understand how the incision can be confined to the mucous membrane, when the fissure so often extends through the membrane, and the muscular fibres are exposed at the bottom of it, so that any incision *must* involve them more or less. But, letting that pass, my experience has convinced me that a too limited incision in these cases cannot be depended upon with certainty to cure the complaint. It has obliged me to operate a second time myself, and I have repeatedly had occasion to do so after other surgeons had failed. No doubt the slight incision will sometimes succeed, especially in the less severe cases, and in those unattended with much contraction of the sphincter. But more often, when I have adopted it, I have found that the relief which it affords is but temporary; the wound, though small, is slow to heal, and is liable to relapse by degrees into its former irritable condition. Perhaps this may be removed after a time by careful attention to the bowels, by the local application of caustics and other stimulating applications; but the patient is then longer under treatment, and suffers much more annoyance than if a free incision had been made at first; while the cases are not unfrequent in which this latter proceeding becomes necessary after all. A good illustration of this has presented itself to me recently in the case of a gentleman who had been operated upon two months previously by a provincial surgeon of repute. The free incision in this case has been completely successful. Failures of this kind are very mortifying to the patient, and very damaging to the reputation of the surgeon. I therefore now in all cases cut well through the fissure into the sphincter muscle. I do not contend that it is essential to divide every fibre of the latter, but it should be divided sufficiently to set the parts in immediate relation with the ulcer completely at rest for a time. It is the more necessary to do this in proportion as the muscle is contracted and has become hypertrophied from constant excessive action. The subsidence of this hypertrophy after the incision has been made is very remarkable. I also consider it advantageous to carry the incision a little outwards into the integument of the buttock, so that the bottom of the wound may form a straight and ready channel along which its secretions may escape. This may slightly increase the size of the wound, but the healing process will nevertheless be accelerated. Although the fissure is almost always situated at the posterior part of the anus, it is not desirable to carry the incision directly backwards towards the coccyx. A wound in the median line will be much slower in healing than one carried a little obliquely to one side.

Grosvenor-place, April, 1865.

NOTICE OF LOWNE'S ANEMOMETER, OR AIR-METER, FOR REGISTERING FEEBLE CURRENTS OF AIR.

By E. A. PARKES, M.D., F.R.S.,
PROFESSOR OF HYGIENE IN THE ARMY MEDICAL SCHOOL.

MR. LOUIS P. CASELLA has introduced this instrument to supersede those for measuring the movement of air in ventilating shafts, chimneys, and rooms which have been employed for some years. The instrument most commonly used until within the last six or eight years was the anemometer invented or improved by M. Combes. Little sails, like a windmill, were made to rotate by the current of air, and turned small cogged wheels, which were connected with an index indicating the number of rotations of the sails in any given time. Each anemometer was separately graduated, and a formula was furnished with each by which the result was to be corrected. The maker of this instrument was M. Neumann, of Paris, a most ingenious mechanic, who has for many years had almost or entirely the monopoly of the trade of these instruments. About ten years ago Neumann improved and altered Combes's anemometer, substituting in place of the cogged wheels a watchmaker's spring, which opposed the action of the moving air; the index marked, of course, the diagonal of the two forces, the moving air and the compressed spring.

In 1860 I procured one of these anemometers, and since that time have used it constantly with good results. But I felt

the necessity of having a second anemometer to control the results, and also of getting an instrument which might be less expensive, and indicate more completely the movement during long periods of time. I requested Mr. Casella, of Hatton-garden, to construct a second instrument for me, and lent him Neumann's anemometer for that purpose. Mr. Casella has been experimenting on this subject with Mr. Lowne, and they have produced various anemometers on different principles. One of these appears to be excellently adapted for its purpose, and is likely, I believe, to give satisfaction to all persons interested in determining the amount of ventilation. The construction of this anemometer is similar to that of M. Combes, but it is more easily read, does not require so difficult a correction, and moves with greater delicacy. The great difficulty to be overcome was to devise some means of accurately graduating the instrument. This has been accomplished by well-arranged machinery, which permits the rapidity of movement of the air to be determined with great nicety. It is believed that the error of the instrument has been reduced to within one per cent.

The annexed drawing of the air-meter shows the sails (*b*); the frame enclosing them (*a*); the handle (*c*), which is capable of being turned round the base by a movable collar (*d*); pillars (*e*) support the dial (*f*). There is a little catch at the side to put the instrument in and out of gear by connecting or detaching the sails from the wheels. On the dial are two hands, one steel, and the other gold. The dial is divided into ten

divisions, and each division has ten subdivisions. When the steel hand has traversed a subdivision, it marks ten feet; when a whole division, it marks 100 feet; and when it has gone the whole round of the dial, 1000 feet. The gold hand marks 1000 feet when it has traversed one subdivision; 10,000 feet when it has traversed one division; and 100,000 feet when it has gone quite round. The instrument marks readily the velocity of 100 feet per minute, and I have succeeded in indicating a movement of seventy-five feet per minute, or one foot and a quarter per second, which is delicate enough for most observations. To use the instrument, note where the gold and steel hands are; place the anemometer in the current of air; then set it in gear; note the time it is left in the current; put it out of gear, and read the position of the hands again. Deduct the first reading from the second, and the difference (after correction) shows the amount of movement in feet of the current of air during the time. Multiplying this by the area of the opening shows the absolute amount of air in cubic feet which has passed through the opening or tube in that time. The instrument may be left for one, six, twelve, or twenty-four hours; and as, if reverse current take place, the hands reverse also, the actual ventilating efficiency of any opening is determined with great certainty.

A correction is necessary; for it has been found by experiment that the rapidity of the rotation of the sails does not increase in the same ratio as the velocity of the current to be registered. This correction is rather a curious subject for inquiry; it does not depend on the amount of friction and leverage, and is different for each instrument. Each instrument has been experimented on separately, and the necessary correction is given in a little table packed inside the box containing the instrument. With a few moments' practice the correction is made very easily.

It would be premature to express any decided opinion at present, but the results obtained with the instrument make it possible that some correction of this kind will have to be applied to Robinson's anemometers, which are now so much used for registering the velocity of the wind.

I believe that this instrument will be found of great use in hospitals, public rooms, mines, and, in fact, everywhere where it is of importance to determine the ingress and egress of air. It is so easily used that two or three minutes' observation in twenty-four hours will show absolutely what amount of air is passing into or out of a room at any particular opening; and

in this way, by transferring the anemometer to different wards in an hospital, the average ventilation of each could be accurately determined. Registering also the currents for long periods, it is likely to give much more accurate results than Combes's or Neumann's instruments, which only act for short periods, and require to be used several times to get a true mean result.

Mr. Casella informs me that he is prepared to supply these instruments at the price of four guineas.

Netley, April, 1865.

GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

Session 1865.

ROYAL COLLEGE OF PHYSICIANS.

THURSDAY, APRIL 13TH.

DR. ACLAND called the attention of the Council to the fact that there were two notices of motion by Dr. Corrigan and Dr. Storrar which came next in order.

Dr. CORRIGAN said his motion was—"That a clause be inserted in the amended Bill, or any Bill to be introduced relative to pharmacy, rendering it imperative on the apothecaries and compounding chemists of the United Kingdom to follow, in compounding prescriptions, the formularies of the British Pharmacopœia, unless otherwise specially directed by the prescriber; inasmuch as the practice at present existing of compounding indifferently from the formularies of four different Pharmacopœias is dangerous to the lives of the community." As legislation existed previously to the publication of the British Pharmacopœia, there was a Pharmacopœia for Ireland and one for England, both published under the sanction of an Act of Parliament; also a Pharmacopœia for Scotland, but not published with the sanction of an Act of Parliament. When the new Pharmacopœia was introduced, the College of Physicians of Ireland passed a resolution, and conveyed it to the Under-Secretary for Ireland, that they would no longer take charge of the inspection of apothecaries' shops, or ascertain whether medicines were or were not compounded according to the new Pharmacopœia, inasmuch as, the new Pharmacopœia being published by the General Medical Council, they considered their functions superseded. He did not know what the College of Physicians of London had done, but he was aware that one or more of that distinguished body had given utterance to strictures on the new Pharmacopœia.

The PRESIDENT said, if Dr. Corrigan was referring to the President of the College of Physicians, his recommendation was, that if physicians were in doubt as to which Pharmacopœia they should use, they had better put at the head of their prescriptions some short words to show which Pharmacopœia they desired to be used.

Dr. CORRIGAN wished to mention no names, but the impression made on his mind was that some of the members of that College were under the impression that the new Pharmacopœia was not right, and that it was better to adhere to old forms. In his own experience as a prescriber, he confessed that scarcely a day passed in which he did not feel great anxiety and occasional terror on that subject. In Ireland they had two Pharmacopœias, in England two, and in Scotland one; and they knew that such was the difference of strength that what was the minimum dose in one Pharmacopœia was poison in another. Take the case of aconite: in the old Pharmacopœia five drops was poison, while in the new Pharmacopœia it was only a very small dose. He did not think it would be judicious to propose to the Secretary of State to insert, either in the amended Bill or in any Pharmacy Bill, a clause making it imperative on apothecaries and compounding chemists, unless otherwise directed, to follow the new Pharmacopœia. If a case of poisoning occurred, under the present state of the law, a chemist would very fairly plead that he did not know which Pharmacopœia he was to follow. The question would naturally arise, what had the General Medical Council ever done to bring the matter before the Legislature? A letter was addressed by the president, in accordance with the wishes of the Council, stating that amendments were required in the law as regarded pharmacy. That should be followed up by a resolution, such as he proposed, stating that the present want of any uniformity was dangerous to the lives of the community.

They would by that means wash their hands of all imputation of neglect or carelessness; so that if a case of poisoning occurred, they might lay their hands on that resolution and say it was not their fault. They all knew that when a single case of poisoning occurred, the public press very properly hunted it up until they came to the guilty person; and he confessed, if matters remained as they were, and if they did not take some such step, it would be perfectly justifiable to say that the crime rested with the Medical Council.

Dr. ARJOHN seconded the motion.

Dr. LEET said part of the clause seemed to reflect injuriously upon Irish apothecaries.

Dr. SMITH said every man who compounded prescriptions ought to be provided with a copy of the British Pharmacopœia. He had inquired at the booksellers in Dublin and found there had not been 1000 copies sold, while there were upwards of 2000 practitioners in Ireland, so that there were a great number who could never have seen the British Pharmacopœia.

Dr. CHRISTISON thought a fair and reasonable interpretation of the Act would give the meaning Dr. Corrigan's motion was intended to convey. There was no medical practitioner in Scotland who did not understand that when he prescribed he was to get his prescription executed according to the British Pharmacopœia unless some other Pharmacopœia was notified. He had spoken to several of the druggists in Edinburgh, who assured him they considered themselves bound to make their preparations according to the British Pharmacopœia unless they had express instructions to the contrary. He was perfectly certain that the law would be superfluous as far as Scotland was concerned. He had also taken the trouble to inquire amongst many of his medical friends since coming to London as to the practice here, and found, however averse some practitioners were to following the British Pharmacopœia, that they still considered themselves bound, by what had passed in various Acts, to specify when they wished their prescriptions to be made up in accordance with the London Pharmacopœia, knowing that when no direction was given the British Pharmacopœia was understood. If such were not the case Dr. Corrigan's motion would be most valuable, but if it were the case then he did not think they should go to the Legislature and ask for such powers, because it would be holding out that the Pharmacopœia had not attained its object.

Dr. ALDERSON said he had made inquiries and found that there was no edition of the old London Pharmacopœia in existence, it having been sold out for the last ten years.

Dr. QUAIN said it would be a grave thing to enact a clause which would compel the chemist to make up what he might know to be a fatal dose.

Dr. STORRAR was prepared to support the motion if it was framed in such a way as to steer the Council clear of any action further than putting it before the Secretary of State.

Dr. CORRIGAN said he would insert the words "That it would be advisable to have a clause inserted in the amended Bill." He said some measure ought to be taken so as to draw the attention of chemists and compounding apothecaries to the subject; he did not care whether the penalty was ever imposed or not, but only wished to clear the Council from the charge of neglect. With regard to Dr. Quain's objection, he did not think they should avoid legislation because a physician might possibly get into a scrape. As to the apothecaries, he had often put the question as to what Pharmacopœia they compounded by, and the answer was—"We never mind the British Pharmacopœia; we compound by the old Pharmacopœia."

The amended clause stood as follows: "That it would be desirable to have a clause inserted in the amended Bill, or in any Pharmacy Bill introduced to the Legislature, rendering it imperative on the apothecaries and compounding chemists of the United Kingdom to follow, in compounding prescriptions, the formularies of the British Pharmacopœia, unless otherwise specially directed by the prescriber, inasmuch as compounding indifferently from the formularies of four different Pharmacopœias is dangerous to the lives of the community." It was put to the Council and carried *nem. con.*

Dr. CORRIGAN.—I will follow it up by moving that a copy of the resolution be forwarded to the Secretary of State, and then I believe we are free from all responsibility.

Dr. WOOD seconded the resolution, which was carried unanimously.

Dr. WOOD moved the adoption of the memorial drawn up by the Committee on the subjects of General Education to be addressed by the President of the Council to the Secretary of State for the Home Department.

Dr. ACLAND seconded the motion, which was agreed to.