

position that its members should be "from bias free of every kind." It was also unanimously decided that, subject to this rule, ladies who are upon our Medical Register should be enrolled as members, and it was with much pleasure that I handed in the names of Mrs. Garrett Anderson, M.D., and Mrs. Marshall, M.D. There can be no possible objection to the presence of ladies at a Therapeutical Society, and it is a step in the right direction to admit them as a privilege due to their degrees.

Now that the Society is launched, it only remains for medical men, by joining as members, to make it a success. The subscription is placed at 10s. 6d. at present, but it was decided to raise this after the first 300 names have been sent in. The journal, of course, will not be included in the subscription, a special charge being made for it. The first meeting will take place in October, and the Council trusts that this Society will not be looked upon as a mere metropolitan one, but literally the Therapeutical Society of Great Britain. It will then take its place amongst the older societies as one of the most useful, because of its essentially practical nature.

Thanking you again for the use of your valuable columns,  
I remain, Sirs, yours faithfully,  
July, 1887. A. GEORGE BATEMAN, M.B., Hon. Sec.

## ON THE USE OF THE THERMOPILE AND SECONDARY BATTERIES.

To the Editors of THE LANCET.

SIRS,—Messrs. Coxeter have, at my suggestion, obtained from Prague the thermopile mentioned by Professor Ogston in an article published in THE LANCET on April 30th, p. 867. The thermopile itself has, when acting properly, an electro-motive force of from four to eight volts. The secondary batteries mentioned by Professor Ogston, when charged, have each an electro-motive force of two volts, and the two boxes contain four cells; therefore the whole secondary battery has also an electro-motive force of eight volts. They answer very well for the electric light and for galvano-cautery, and one box (two cells) is quite sufficient to work an induction coil, but they do not possess sufficient power to overcome a high resistance such as is experienced in performing electrolysis. When needles attached to both poles are inserted, for example, into a nævus, no doubt the current strength would be sufficient, for the resistance then experienced is very low; but if only one pole is used for the needle—say, the positive pole,—when every endeavour is made to prevent a slough, and an electrode is attached to the negative pole and placed on some indifferent part of the body, then the electro-motive force is not sufficient to effectually overcome the resistance. If we take the resistance of the body with a needle attached to one pole beneath the skin at 500 ohms, we should only have a current strength of 16 milliampères. In the electrolysis of nævi with the needles attached to one pole we have generally found that we have been obliged to use a current strength of 40 milliampères to produce any destruction of the growth; and, of course, with the electrolysis of uterine fibroids, in which M. Apostoli is said to use a current strength of from 100 to 300 milliampères, the secondary battery, as described by Professor Ogston, would be of very little use. Again, with the employment of the constant current in the treatment of such an affection as sciatica, when both poles are applied to the skin the secondary batteries would give a current strength of about 8 milliampères, and we have found that the best effects are derived from a current of from 10 to 15. It will therefore be seen that for electrolysis and ordinary galvanising it will be more efficacious to still employ primary batteries containing a large number of cells; but for electric lighting, heating small cauteries, and for working faradaic coils, the secondary batteries, as charged by the thermopile, are, no doubt, "a convenient means of producing electricity for medical and surgical purposes."

I am, Sirs, yours obediently,

W. E. STEAVENSON, M.D. Cantab., M.R.C.P.,  
In charge of the Electrical Department at  
St. Bartholomew's Hospital.

July, 1887.

MOSQUITOES are said to be giving trouble to some of the residents of Camberwell and its vicinity. A man who was severely bitten by these pests thought it necessary to seek advice at St. Thomas's Hospital.

## LIVERPOOL.

(From our own Correspondent.)

### THE REBUILDING OF THE ROYAL INFIRMARY.

THE removal of the present buildings of the Royal Infirmary and the erection of a new structure on its site are matters of more than local interest. The institution has existed since 1749. The first infirmary, which was erected in that year, was removed in 1836, and replaced by the present structure, which was commenced in 1821 and completed in 1824. The institution, therefore, possesses some antiquarian interest. The present infirmary has afforded clinical instruction to thousands of medical practitioners, past and present, in all parts of the world; while the re-erection of this most important provincial hospital is a matter of interest to all readers of THE LANCET.

### THE OLD INFIRMARY.

Proceedings were taken in 1745 to found "an infirmary for the sick and hurt," but a threatened invasion prevented the completion of this, the first medical charity in Liverpool, until four years later. Excellent views are preserved of this building, which was, and must ever remain, memorable as being the scene of Henry Park's first most successful excision of the knee joint. A less creditable circumstance in connexion with this infirmary is that its medical staff constituted an examining board for African surgeons, the name given to the surgeons on board slave ships, for which Liverpool had at that time a most unenviable reputation.

### THE PRESENT INFIRMARY.

Partly owing to town improvements, partly to the fact of the old infirmary being inadequate for its purpose, the present one was erected on a site which was then in the eastern suburbs of the town. From the very first its internal arrangements were faulty. As an illustration of this, it may be mentioned that the original plan contained no stairs at all, and these had to be introduced as an after-thought. Since it was first erected the building has been altered, patched up, and added to repeatedly, the result being to create a huge rambling edifice, most inconvenient to everybody connected with it. Still its complete removal will cause a shade of regret to many an old student who may have pleasant recollections of former days spent within its walls.

### THE PROPOSED NEW INFIRMARY.

After due deliberation it was decided that the present site should be retained, some additional adjoining ground having been also acquired and added to it. This latter is being rapidly cleared of the old houses which covered it, and the infirmary itself is in process of demolition. Temporary wards have been erected, and additional accommodation provided in the immediate neighbourhood. Mr. Alfred Waterhouse, R.A., the architect, has produced a general design, which will be at once useful and effective, without being unnecessarily ornate. He has selected the dark Liverpool brick for his material, with terra-cotta facings and ornaments, the effect of which, as seen in the recently erected chemical laboratories, is very rich. The executive department will face Pembroke-place (a leading thoroughfare), and contain all the offices, living rooms, and commissariat department. The general plan is that of a long ridge or backbone, this being a general means of access. From one side of this run off three long pavilions; from the other, two towers and a short central pavilion, by means of which last communication is effected with the executive department. The chief features of the interior will be the use of coloured glazed bricks for the walls, of fireproof cement covered with oak parquet for the floors, and of cement ceilings. By this means every portion of each ward will present an impenetrable surface, always capable of easy cleaning. The ventilation will be of the simplest description, reliance being almost entirely placed upon the windows. The wards will be heated partly by steam coils and partly by central open fireplaces, so as to combine the advantages of both systems. The supervision of the drainage has been handed over to the special care of Mr. Rogers Field, a guarantee in itself that this important department will be of the most perfect character. The members of the Building Committee have spared no pains to ensure the success of the new building. They have visited the more recent hospitals to obtain all possible information on the