Another advantage of the electro motor, is the perfect stea-

from six to ten letters of less than a page length, are furnished promptly by the phonograph company either on written or telephonic order. They are shaved by simply setting a little knife or plane and turning on the current. In my office the tonsorial part is satisfactorily presided over by an office boy, so it will be seen the process does not involve the intricate. A dozen cylinders shaved once a day will take care of a good sized correspondence of from fifty to one hundred letters per day, according to their length and the practice of the operator. The yearly rental of the phonograph alone is \$40. Where a primary bat ery is provided and kept charged by the company, the rental is \$55. Where current from the mains is used, one pays \$40 per year for the machine and settles with the electric light company for the current used as | er meter. This is the best and cheapest way.

letters will they take apiece, and what do you do with them

after using ?" They cost 20 cents apiece, will receive easily

The day is, I believe, coming, when fifty out of one hundred offices having typewriting machines will use this instrument, and when the veil of mystery will no longer conceal in its voluminous folds the true uses and possibilities of the Edison Phonograph.-Electrical Engineer.

ELECTRICITY AS A MOTIVE POWER IN DENTISTRY.* BY PETER BROWN, L. D. S.

The question of providing some motive power for the dental engine has led many inventors to investigate the merits of the electro motor in its application to the dental engine. Electricity is coming rapidly to the front as a motive power, and the rapid strides made in its various applications have not been lost sight of by those interested in applying this wonderful agent to various uses in dentistry.

The electro motor has many advantages, strongly indicating it as the only perfect machine for applying power to the dental engine.

Prominent among these is the small space required, comparing it with other motors (as an illustration, it may be meutioned that a one H. P. motor requires a floor space of only 20 inches square); then it can be placed out of sight of the patient ; it is noiseless, clean, and requires very little attention.

To dentists living in cities or towns where a supply of electric power cannot be obtained from a central power station, the use of batteries must be resorted to, but this must not be looked upon as a very great objection. Many improvements have been made in the construction and durability of galvauic cells, rendering them much more cleanly and free from unpleasant odors, and less troublesome to keep in proper order, than the form of cell heretofore in use. Batteries can be obtained to day that will supply for a month or more, without any further attention than the addition of a little water occasionally, all the power required in operating a dental engine.

Where a supply of electricity can be taken from a power station, it may be put to endless uses in the dental laboratory.

With an electric motor properly adjusted to the engine, one may work through the most fatiguing operation with ease. With the foot-power it is necessary, as we know, to stand on one foot while using the engine, which is a very tiresome position in itself, but when the other foot is obliged to work the treadle of the engine, it is doubly tiresome. While with the motor you may take any position the nature of the operation will allow you, and at the end of a long day's work, you will look upon the electro motor as one of the greatest boons that modern inventiou and science have given us.

* Paper read before the Odontological Society, Montreal.

diness it gives the cutting instrument. There is no swaying of the body as there is when moving a treadle, and it can be run slowly without that decidedly unpleasart jar the instrument receives every time the crank of the driving-wheel passes over the centre. It is maintained by good authorities that one of the best

methods of excavating sensitive dentine with a minimum of pain, is by the use of a very sharp bur run at a high speed. Now, in order to get a high speed with the ordinary engine we have to exert quite a little force, and in doing so the body is moved about, and the steadiness required is much disturbed; while with the motor a speed of from 2,000 to 5,000 revolutions per minute can be easily obtained by the simple operation of closing a switch, leaving the operator perfectly steady and at rest.

Many will object to introducing the electro motor so near to the chair, saying that it looks too much like machinery; but were there not objections on the same ground made to the dental engine itself on its first introduction, and how many dentists are there to-day without that valuable instrument? When the advantages of the electro motor become better known among the dental profession, there will be few who will be without it.

Then there is the objection of introducing the electric current from a power station into our houses, on the grounds that it is dangerous to life and property. The dangers from this source have b en v ry much exaggerated ; the low tension current is not at all dangerous when properly insulated. We have a deadly agent in our houses now in the form of illuminating gas, and serious consequences may result from a leaky joint or improperly closed tap. Yet we do not go about with fear and trenibling when we use this agent in our houses. When electric wires are covered with proper insulating material, the fluid they carry is as safely confined as the gas or water in their respective pipes. The amount of knowledge required for the successful operation of electrical appliances in dentistry is not necessarily very great. Certainly, a fair amount of information will help one wonderfully out of a difficulty, and will prove valuable in successfully using electricity in practice.

This force is coming into such general favor and use, that every one should have a little general knowledge of it, which may be easily obtained from one of the numerous text-books on the subject. The time is not far distant when we shall have our houses heated, lighted and ventilated by electricity; the obnoxious gas jet will give way to the clear and steady light of the incandescent lamp, which gives us light with a minimum of heat, and does not vitiate the atmosphere of our rooms, and fill our lungs with carbon. This lamp is to be strongly recommended in making examinations of the teeth, or in operating on dark or cloudy days when the light is unsteady. With proper fixtures the lamp may be made to concentrate its light on the mouth, and also shaded from the eyes of the operator. The incandescent current may also be used to run the electric mallet, the electro cautery ; and applied to a fine platinum point is the best means of drying out root canals before filling.

EXPLANATION OF ELECTRICAL WORDS, TERMS, AND PHRASES.

(From Houston's Dictionary.)

B. A. U.-A contraction sometimes employed for the Brit. ish Association Unit or Ohm.

Bell, Extension Call-A device for prolonging the sound of