

ing load is not to be despised if it can be obtained at a suitable price; in fact, there is no doubt that a good deal of development is possible by cultivating this kind of supply, not only for the power company but for electrical applications generally in the smaller towns. There are many towns which are not sufficiently large to bear the comparatively heavy capital expenditure of a generating station, and the high cost per unit where the output is somewhat small. In such cases the power company is at a great advantage, and there is much to be said in favour of a supply in bulk. This point is evidently being realised at the present time in Yorkshire, for the Yorkshire Electric Power Co. is now supplying in bulk 11 electric light undertakings and is negotiating with several others. The latest example is Brighouse, in which the local electricity works is to be discarded, and a supply is to be taken for light and tramways at a charge of £6 per annum per kilowatt of maximum demand, and a further charge of ¼d. per unit, subject, however, to the proviso that the charge shall not exceed 1·25d. per unit.

### Street Lighting.

A CONSIDERABLE amount of information on most subjects pertaining to electricity supply must have been collected during the last few years by means of series of questions sent round by municipal electrical engineers to their confrères in other towns. Most of this information never becomes public, and we were, therefore, very pleased to receive a copy of the tabulated answers, in reply to questions in regard to public lighting, issued by Mr. F. TEAGUE, city electrical engineer of Bath. We summarise briefly, in another column of our Notes, the contents of the tabulated replies. As might be expected, a considerable variation is shown between the statistics given for different towns. For example, the number of lamps trimmed and cleaned per day per man varies from 30 to an unexplained figure of 100. At the present time when the competition between electricity and gas for street lighting is so very keen, it is specially important that arc lamps used for public lighting should be maintained in as efficient a state as possible. Arc lamp columns have the advantage of being more artistic than any gas standards yet devised, but dirty or badly illuminated arc lamp globes are very conspicuous, and are more noticeable than broken gas mantles. Even when the lamps are properly adjusted as regards voltage, careless centring of the carbons or worn guides may cause a poor and unsteady light; and we are sure that in many cases much more might be done, both in the way of keeping the globes clean and in the more careful adjustment of the lamps. Moreover, too much attention cannot be paid to the maintenance of street lighting in as efficient a condition as possible, for it is then one of the best advertisements an electricity supply station can have.

### Effect of Electricity on Plants.

THE Paper by Mr. J. H. PRIESTLEY, of which we give an abstract elsewhere, gives an interesting account of the work being carried out by Mr. NEWMAN on the lines of the late Prof. LEMSTROM. Generally speaking the results have been satisfactory, the increase on various crops ranging from 15 to 80 per cent., though certain plants seem un-

affected; and the experiments have probably been on a sufficiently large scale to be of agricultural value. Apart from any practical interest—and we scarcely anticipate that the extended use of the method will give rise to a large power load, though it may lead to the further development of influence machines—the mode in which electricity has a stimulating effect is of considerable interest. One naturally thinks of electric osmosis, and of the production of nitrates in the atmosphere by the discharge, as possible explanations of the increased growth, but so far no definite conclusions have been reached.

### Wireless Telegraphy in the Navy.

IT is interesting to note that wireless telegraphy in the British Navy has now so far developed that the Admiralty have thought well to establish a separate branch for its operation. As we give elsewhere particulars of the circular issued by the Admiralty in this connection, we need only say that the new branch will deal exclusively with wireless telegraph matters and will be quite distinct from the visual signalling branch, so that the newer form of signalling will no doubt develop untrammelled.

**American Railway Electrification.**—It is reported that the Southern Pacific Railway has prepared plans for the electrification of 136 miles of their line in Colorado, running over the Sierra Madre Mountains.

**Personal.**—It is announced that M. Becquerel has been appointed president of the Commission Technique Interministérielle, formed to report on the organisation of the wireless telegraph service.

**Electric Lighting in Paris.**—The *Westminster Gazette* reports that the arrangements, whereby the electric lighting companies of Paris are to be combined in one large corporation, have now been concluded, and, with the co-operation of the civic authorities and the assent of the Council of State, there is being formed what will be known as the Compagnie Parisienne de Distribution d'Electricité, which is expected to produce beneficial results to the shareholders and to more completely satisfy the needs of users. The new undertaking will be capitalised at 50,000,000fr. (£2,000,000). A couple of months will, it is believed, see the organisation entirely completed and in full work.

**Electric Traction in America.**—The *Railway and Engineering Review* reports an extensive project for the utilisation of hydro-electric power by the Chicago, Milwaukee & St. Paul Railway. The scheme contemplates the development of 180,000 H.P. from the river, a part of which will be used as motive power on the adjacent sections of the railroad. That portion of the line is one of recurring tunnels, the aggregate being 10,000 ft. in 150 miles of line. The electrification project, therefore, offers the advantage of dispensing with steam power in the tunnels as well as of concentrating great power at the heavy gradients. It is stated that definite plans have been formulated for the hydro-electric works, for which three dams will be built at available sites in the river. After the requirements of motive power for the road are supplied, a considerable surplus of electric power will be at hand to be used in the operation of saw mills and for other purposes tending to the industrial development of the territory.

### Cable Interruptions and Repairs.

	Date of Interruption.	Date of Repair.
Garachico (Teneriffe)—Santa Cruz de la Palma.....	July 12, 1906 ..	—
Grand Canary—Lanzarote ..	Sept. 18, 1906 ..	—
Brest—Dakar .....	July 22, 1907 ..	—
Kotonou—Libreville .....	July 18, 1907 ..	—
Maranham—Ceara.....	Aug. 21, 1907 ..	Sept. 2, 1907
Medan—Olehleh.....	Aug. 21, 1907 ..	Sept. 2, 1907