The clays are compact, well fired and decorated in the style of the Sinhalese and are unglazed.—The ware is shaped by hand and turned on a potters' wheel.

Department H. Manufactures.—Exhibitor,—S. L. Omer Lebbe Marikar, Colombo. Group 97, class 607. Exhibit,—"Silver box."—Award.

Fine design, carving and chasing in silver.

Department H. Manufactures.—Exhibitor,—The Ceylon Government, J. J. Grinlinton Colombo. Group 98, class 612. Exhibit,—Jewelry.—Award.

Gold belt, very fine work in etruscan gold; also eight etruscan gold necklaces, all of different and unusual designs. The gold carving is well done and the designs particularly good.

Department H. Manufactures.—Exhibitor, M. J. Perera, Colombo. Group 98. class 612—Exhibit, Jewelry.—Award.

Sinhalese Lady's head-dress in five pieces; the gold being carefully and artistically carved, indicating superior workmanship.

Department H. Manufactures.—Exhibitor, D. D. Silva, & Co., Colombo, Group 98 class 613—Exhibit, Jewelry.—Award.

Blue sapphire combining excellence of cutting and quality of stone.

Department H. Manufactures.—Exhibitor, O. L. M. Mohoma Macan Marikar, Colombo. Group 98, class 613—Exhibit, Necklace of precious stones.—Award.

The cat's-eyes in necklace are of fine quality and very evenly matched.

Department H. Manufacture.—Exhibitor, A. H. Ismail, Colombo. Group 98, class 613—Exhibit—Jewelry.—Award.

Antique etruscan gold necklace set with rubies; the workmanship is exceedingly good.

Department H. Manufactures.—Exhibitor, A. T. Mohammed Baahy, Colombo. Group 98, class 613—Exhibit—Precious stones.—Award.

Great variety of coloured gems and for the unusual size and perfect quality of Aqua-marine and Chrysoberyl.

Department H. Manufactures.—Exhibitor, P. T Meera Lebbe Marikar, Colombo. Group 98, class 613—Exhibit—Precious stones.—Award.

Great variety and quality of coloured gems.

Department H. Manufactures.—Exhibitor, A. L. M. Mohama Mohammed, Colombo. Group 98, class 613. Exhibit—Jewelry.—Award.

Ruby and Cat's-eye bracelet, the Rubies and Cat's-eye are particularly well-matched and the workmanship, particularly the setting of the stones is very good.

Department H. Manufactures.—Exhibitor, Ceylon Spinning and Weaving Company. Group 102, 638. Exhibit—Cotton Fabrics.—Award.

Good workmanship of drills and Ceylon coatings.

Department H. Manufactures.—Exhibitor Hon. J. J. Grinlinton for Ceylon Government. Group 102, class 638. Exhibit—Cotton Fabric.—Award.

The material used is excellent, and the weave and finish are good.

Department H. Manufactures.—Exhibitor, Ceylon Government, Colombo. Group 118, class 744. Exhibit—Brass art ware (trays, pots, flower vases and cuspidors) pewter plates.—Award.

For good workmanship in hammered brass-work.

TRINIDAD AND CEYLON CACAO.

The Grove, July 6.

Dear Sir,—Under the heading of "Cacao in Trinidad," the Botanic Garden's Report, (see page 101) has a reference to the discovery in Trinidad among the Forestero of a pod, "which produced the uncoloured bean and was of the form which common consent accords to Criollo cocoa," "and there appears to be little doubt," the writer adds, "that we have still the original variety with us." I write to tell you that it may not be the original variety in its purity; because with us it is quite a common occurrence in Ceylon to find the white or colourless interior in the bean of the Forestero *hybrids* planted by us. Especially among the red varieties are the modifications, and the tendency to revert to the *Criollo* apparent. For, while the tree retains all the robust habit and appearance of the Forestero, its shape, size and luxuriance of growth along with pods of large size and all pointing to its origin, yet the bean has lost its tint. In some cases the dark lilac has shaded down to light pink and in others the curious phenomenon of tinted as well as altogether colourless beans occur in one and the same pod.

I send you three pods from different trees of the red hybrid variety now eight years old. You will notice that the shape of bean also approaches that of the Criollo. This, in fact, is what we desiderated for Ceylon some years ago, and I think we have it fairly established now especially in the new clearing as there are few who plant the Criollo now-a-days, although it may fetch 10s per cwt. more in the Lane.—Yours truly, JAS. H. B.

[We are indebted to "J. H. B." for his note and also the specimen pods out of which, as he said, there could be taken seeds of different shades of colour—some white and others pink or even purple from the same pod.—Ed. *T.A.*]

ELECTRICITY AND MOTORS.

Colombo, July 9th.

Dear Sir,— I presume that what your correspondent wishes to know is: "What amount of electrical work can be performed by the spare power available in a Factory, or elsewhere; also the comparative cost of producing a certain amount of light either by Electricity or Coal Gas.

Although for some centuries subsequent to the researches of the Greek Philosopher "Thales" (B.C. 67), Electricity was more or less a "Fairy Tale," at the present day it is a *power* which can be utilised and measured by units in the same manner as any other *power* (which is estimated according to the amount of work done in a given time.)

With regard to electric power, it is not a difficult matter for a "Planter" or any other person who uses power either from a steam engine or turbine, to get at the cost of production, and it is an easy matter to calculate what can be done in the way of utilizing spare power, and the consequent cost of producing Electric light. As one mechanical horse-power is represented by 33,000 foot pounds of work done per minute, one electrical horse-power is represented by 746 "watts" per minute. The two units in estimating electrical horse-power are potential or electromotive force termed the "volt," and the current (or mass of electricity) termed the ampere then, volts × amperes = watts.

In estimating electrical *work*, another unit comes into consideration *i e.* resistance which is termed an ohm, and a simple formula, enables anyone to calculate electrical work. $C = \frac{E}{R}$ meaning that the quantity of the current equals the electromotive force divided by the resistance of the circuit when

C = Amperes
E = Volts
R = Ohm

A 16 C.P. incandescent lamps working at a difference of potential of 100 volts absorbs ·5 to ·6 amphere. Taking it at ·6 a 16 C. P. lamp requires 60 watts, therefore one electrical H.P. (746 watts) will theoretically light about 12 16 C.P. lamp, but in actual practice as a safe margin it is usual to allow about 80 per cent.—efficiency in calculating the requisite power. Therefore one B. H.P. will light 10, 16 C.P. incandescent lamps.

Lighting by means of arc lamps is much more economical, as will be readily seen by the following data although, of course, it is not always practicable.

An arc lamp of 1,000 C.P. absorbs about 500 watts, or about ⅔ H.P. Therefore in practice we may reckon that one B.H.P. will give 160 C.P. in incandescent lamp, or 1,000 C.P. in an arc lamp. The initial cost of an installation varies as to its location and requirements, but an installation of say 50 incandescent lamps, or 5 arc lamps could be erected at a cost varying from £150 to £200, this amount not providing for motive powers.

With regard to the saving in incandescent lamps as they can now be supplied of guaranteed efficiency at R1·50, and it is scarcely worth while to run them at a lower potential than their nominal E.M.F. as 1,000 hours may be taken as an average life. A 1,000 C.P. Arc Lamp consumes about 2 inches of carbon per hour, this size of carbon costing about £5 per 1,000 feet. The depreciation on plant may be reckoned at 5 per cent on the initial cost of the installation as being ample.

With regard to the comparative cost of producing Electric light and Gas, as far as Gas is concerned, I think I must refer your correspondent to the Gas Company in Colombo, if they care to supply the information as to the actual cost of manufacturing gas which is sold at so much per 1,000 cubic feet.

For the purposes of comparison an ordinary gas burner, which is supposed to give 16 C.P., burns 6 cubic feet of gas per hour. An equivalent electric light nominally is a 60 watt lamp, but virtually a 35 watt lamp would illuminate the same area more efficiently.

One thing which is very important your correspondent must remember is, the perfect immunity from fire in using electric light (especially valuable in withering lofts) as against kerosine lamps. I think I have given all the information necessary for your correspondent's calculations; but if he or any of your readers interested in the subject desire further particulars if they will communicate with me, I shall be pleased to give any information in my power.

There is one other matter, however, I must refer to, that is the transmission of water-power electrically, and this is a matter which every one who has available water-power should carefully consider. Apologising for taking up so much of your space.—I am yours faithfully,

J. TORR TODMAN,

TROPICAL QUEENSLAND: WHO CAN TELL ABOUT IT?

Dear Sir,—I would feel greatly obliged if any of your travelled correspondents would furnish me through your columns with information in regard to Tropical Queensland, in the nature of that sought in the following questions:—

An intending settler accustomed to coffee and coconut cultivation, and who has lived many years in Ceylon, desires to move to Tropical Queensland. He has about £600 stg. as capital and an income of £200 per annum from home. He has a wife and family of boys and desires to get general information before moving, especially as to the Landlaws, &c. Are lands allotted on time payments as in other part of Australia? Is any additional allowance in acreage made for wife, sons and daughters? Is there malarial fever on the lands between the Burdekin and Fitzroy rivers? Are the blacks still troublesome? What is the range of the thermometer during the year? How many inches of rainfall? Is there any pastoral land, *i. e.*, suitable for horses and cattle. Presumably the climate would be too hot for sheep. Any general information would be gratefully received, also names of any books (and their publishers) bearing on this subject.

Begging the favor of an early insertion.—I remain, yours truly, ALIQUIS.

[We could tell about some parts of Queensland as we saw them in 1869; but *cui bono*? Ten years in an Australian Colony makes as great a change as 50 or 100 in Europe. For much the same reason, books get very quickly out of date. Our advice to "Aliquis" is to write by first mail to "The Secretary to Government, Brisbane"; also to the same officer in Sydney; for some parts of New South Wales are among the most attractive in Australasia—*vide* "Old Colonist"'s letters to us last year about the country beyond Bathurst. In any case a would-be colonist with a family, £600 cash and £200 a year, will be most readily furnished with official Handbooks and all necessary information by the officials mentioned above.—Ed. *T.A.*]

NATAL TEA REPORT.

Season's Yield: 690,000 lb.

Mr. G. W. Drummond of Kearsney, sends us the following report:—Herewith my last tea report for the current season. Pruning has already commenced in this district, and I have no doubt it will become general before the close of this month. Since the 4th of January, we have had good weather on the whole for tea manufacture. Previous to that date it was altogether too wet, and cold, and sunless. We consider that this season has been a great improvement on last season. An advance has been made in the right direction. The total outturn from this district will be 580,000 lb. The outturn from the Kearsney Factory only being, in round figures, 450,000 lb. We think, therefore, that we shall be well within the mark when we put the entire outturn of the Colony at 690,000 lb Our original estimate was 650,000 lb. (or 700,000 lb. if weather favourable.)

In my February report I stated that probably two new factories would start work on their own account next September. That statement I now corroborate. Mr. Adrien Colenbrander of Hummelo, will make his own tea, and also Mr. T. E. Peachey of Sprowston, our near neighbour. The latter estate has made great progress during the three years, the total outturn of Sprowston having gone up from 900 lb. in 1891-1892 to 40,000 lb. this season. It has an estimate of 70,000 lb. for next season, and therefore Sprowston now ranks third in its out-turn among all the tea estates of Natal.

The improved quality of tea made, has been a particular feature of the past season. We ourselves, have picked for quality throughout the whole nine months, thereby relinquishing an extra out-turn of fully 30,000lb. of dry tea.

We sincerely hope, that in view of the yearly increasing competition with teas from India and Ceylon; in view of the fact that the merchants of London, Calcutta, and Colombo, in their eager search for "pastures new," are ready to sell at a large sacrifice to obtain a footing; and, in view of the over-production of India and Ceylon enabling them to do this, that all Natal tea planters will be most careful not to commit the short-sighted and almost irretrievable blunder of sacrificing quality for quantity.—*Natal Mereury.*

VARIOUS PLANTING NOTES.

Coffee Blossom.—We learn that a nice sossom is out on the coffee near the Haputale station and along the road to Bandarawela, the Roehampton fields especially making a good show.