The Westinghouse Apprentice Course.

It is the intention of the writer to give something of the apprentice course that the Westinghouse Electric and Manufacturing Company offers to college graduates, for publication in The Battalion. It may be of interest to some of the students of electricity who contemplate taking an apprentice course in some large company when they have finished at A. & M., and of mere passing interest to others. Prof. Brown could give all the information any one desired on the work here and the advisability of one pursuing this kind of preparation, but it occurred to me that the course, as it is seen by an apprentice himself, might not be out of order. That is to say, by one who is living on $37 per. Then there is the distinction we Texans have of being the first delegation from A. & M. and Texas also, a distinction which we bear with some little pride, which prompted this writing in a way perhaps.

The difference that the Westinghouse course for apprentices has from that of the General Electric and most others, and one that is emphasized by the company as being superior in many respects, is the large amount of shop work they require of a man. Their theory is that the best way to become familiar with Westinghouse apparatus, is to go into the shops and actually help build it. The apprentice is given over to an experienced workman to serve as a helper. And it may be well to mention here that the regular men are well acquainted with the best way to build a machine, though they hardly ever know the reason why such and such a thing is done. This, though, is no hindrance to the apprentice as long as he learns the correct science of building apparatus, for the theory will come to him then through a little study.

If there was a division of the course made, it might be something as follows: (1) Eight to ten months of shop work; (2) six months of office; (3) eight to ten months of test, and (4) possibly a few months of construction work on the road. Yet the above divisions are not rigidly followed by the forman of the apprentices, Mr. Downton, because the apprentice himself may wish to specialize, to a certain extent, in some one branch of electrical engineering, and also on account of various and sundry reasons that come up at times.

The shop work generally and in proper order comes first, for this should be taken before the test in order that some knowledge may be had of the machine or piece of apparatus under test. This makes the testing of more value. The shop cannot all be covered in the time alloted to such work, of course, but there is time to get quite a good deal of experience in chipping and filing, wiring up motors, assembling machines, switchboard building, winding, aimature winding, transformer assembling and work on the electric locomotives if any one desires this kind of work, and other departments if time and inclination allow and direct. The ones named are considered the most important for reasons that are evident when one considers the parts that go to make up a machine.

Office work is a part of nearly every one's experience and one that is gladly welcomed by a fellow when he has been in the dirty shops for some months. Here the hours are short, only 7 1-2 balanced against 9 3-4 hours per day in the shops. The work here may be in the engineering office, sub-divided into the switchboard and power plant departments, the sales department, correspondence department, detail and supply department, and correspondence work is of especial interest to any one who is thinking of entering the services of the company as a sales agent, for in here an insight is obtained of the methods which the Westinghouse Company employs in doing business with their customers. The engineering office offers some valuable experience in the design of switchboards and power plants and the translation of specifications in general.

In test the principal thing is the dynamo test. During the course in testing there is something in most all kinds of machines, railway motors, induction motors, small D. C. machines, and alternators large and small. Outside of the regular dynamo test there are tests for arc lamps, transformers, the high tension test, where the experiments are made with high voltages on insulators, etc., and the standard house, where a variety of knowledge may be gotten in callibration work, especially with meters, and where general testing is done with low voltages.

The construction work is, if the man wants it and can get it, the last item on the program. When the shop, office and testing have been completed, the apprentice may go out on the road to help install power plants stay with them until they are in good running condition, and help in putting up any of the Westinghouse apparatus that may need electrical engineers to install it. The experience on the road is the place where many unexpected cases of engineering come up that require an ingenious head to solve the problem. No doubt many of the subscribers of the Electric Journal have noticed articles on this work.

This is a partial presentation of the course and what it includes in two years time. I am not prepared to go into much further detail on the different kinds of work to be gotten, nor to discuss with any great weight the merit of the course, for six months here would hardly permit one to say what that is definitely. But it can be said that the apprentice body, as a whole, recognize the value of the training and are well satisfied with what the company is giving them. It depends in a great measure on the man, as you hear so often, as to whether he is going to get what will do him any good. Anyone could go thrdugh the whole two years and not be much better off than that of having received a living, an allowance for which the company provides for each one, and barely know that the Westinghouse Company manufactured such and such apparatus.

There are several points of minor interest conceruing the work that might be mentioned if there was space, but a few may be all that is necessary to acquaint one with the system used in the works. The apprentice, while he is in the shop, works on a check, that is he is paid for just the number of hours his check is on the board. The first year the apprentice receives 16 cents per hour and the second year he receives 18 cents. The regular hours per week amounts to 54. Overtime is paid at the rate of time and one-half. While in the office the pay is $37 a month the first year and $42 the second year, regardless of the number of days he works, that is, holidays are not counted out.

A few words may be said of Wilkinsburg as a place to live. Most all the young men stay here because it is the best part of the city to live and also because the Electric Club has its hold here. It is the cleanest section of the city, yet that is not saying any too much for it. There are no saloons and because of its many churches and the absence of saloons it is called "The Holy City." There is to be started here this month a natatorium and gymnasium building to cost $80,000. With 15,000 young men residing in the borough of Wilkinsburg, including Westinghouse men and employees of the Pennsylvania railroad, it is thought this will be a paying, as well as a much welcomed project.

The Electric Club has each winter a series of lectures on electrical engineering, delivered by engineers of the company. These are practical talks on practical subjects and are very beneficial. There are also many social events carried out under the management of the club, such as dances and entertainments at the club rooms.

If there are any who wish to ask any questions not touched in this article they may be obliged by letting the writer know.

BENN GLEASON, '06.

CLASS MEETING TO BE CALLED.

(Continued from page 1)

be needed. As heretofore, the meet is to be between the classes and not between the companies, as was talked of earlier in the season. A track is to be constructed at the athletic field, and while not yet fully decided upon, it is almost sure to be of cinders. We have a large number of cadets that have good stuff in them, and the council is going to give them every opportunity to develop it.

A. J. Neff, '03, who besides distinguishing himself on the '02 team, did stunts with the weights at the spring meet, is going to do the coaching along that line. He is going to give the weight throwers a talk in a few days and get them started in the way they should go.

Prof. Puryear has been elected faculty manager of football for the coming season. Prof. Puryear is a hustler and we feel sure that he will not only give us a good schedule, but will also keep us out of the debt. He has a letter from Louisiana relative to our team that should make us all proud. Some correspondence relative to games for next fall has been received, but it is yet too early to announce anything definite.

As retiring manager, Prof. Potts wishes to thank the team and the corps for the hearty support they have given him during the past two years. He appreciates that it was due to this support that it was possible to secure the athletic field, to clear up the deficit, and to place our finances on such a firm basis that we may now have better schedules and yet keep out of debt. Prof. Potts has been an excellent manager. We regret that he was unable to take the management for another year, but we feel that in Prof. Puryear we have a man who will look after our interests as if they were his own.

Live Stock Experiments at College.

In addition to the experiment just started at College in testing the feeding value of Kaffir corn and Milo Maize for cattle, the experiment station is running a check experiment of the same kind at Clarendon, Texas. T. M. Reddell, who was prominent as a student of animal husbandry here last year, has the work in charge.

Prof. Marshal, co-operating with Dr. Frapps, will also direct an experiment at college for determining the digestible nutrients of Milo Maize and Kaffir corn. This is a very important work, as there are only two similar experiments on record, and the reported results of them are so widely different as to render them very indefinite. Texas will endeavor to make known the facts. Three yearling steers, with Cadet John H. McLeod in charge, will be used in the experiment.

It is desirable that matter intended for publication in The Battalion be received as soon as possible. Matter can be received as late as Tuesday morning, but if handed in on Sunday or Monday the editor can give more consideration to it.