

best, \$150 for second best and \$100 for the third best. The Brill thesis contest was inaugurated in 1908. Charles T. Ripley, University of Illinois, was awarded first prize and the Brill gold medal last year. Why shouldn't Wisconsin be represented in this contest?

MINSTREL SHOW Encouraged by the success of the minstrel show of the last year, the senior engineers are making preparations for a minstrel show which will eclipse all that have gone before, and to keep up with the past record every loyal engineer will have to work.

The minstrel show idea started with the class of '03, who staged the first one of its kind at the university. So thoroughly did it meet the approval of the students that the class of '04 gave another the following year. No show was given by the seniors in 1905 as it was not thought best to attempt to run in opposition with the university circus which is given every two years, but the class of '06 showed that the minstrel idea was still alive and staged a very clever production in Library Hall. For the next two years sufficient enthusiasm could not be awakened to give a minstrel show although the class of '08 got as far as the appointing of the committees. The class of '09, however, started in early and rounded up so much good material for a minstrel show that it was determined to stage it in the Fuller opera house. This was a long step but, knowing the limitations of the stage and seating capacity of Library Hall, they determined to take the increased responsibility on themselves. This performance is remembered by the present students as a very clever show and a decided minstrel hit. The hopes of the committee were realized and the Fuller opera house management stated that with one exception the seat sale for the minstrel show was the largest in the history of the theatre.

The benefits derived from work of this nature cannot be estimated. The engineers are naturally a jolly set, who like a good joke or song, and are therefore the logical class to ap-

pear in a minstrel show. Let every engineer who can sing, or who has a good act, boost the minstrel show and help make it just a little bit better than the previous one.

A committee consisting of Messrs. Traxler, Osthoff, Cowan, Andrews, Witt, Slidell and Pergande, have been appointed to make the necessary arrangements. Mr. Cowan was elected musical director, Mr. Osthoff, business manager and Mr. Traxler, stage manager.

OUTSIDE LECTURES On January 14, a lecture was given by Dean W. F. Goss, of the University of Illinois, on "The Locomotive as a Power Plant." Mr. Goss gave a brief summary of the difficulties to be met in the construction and the development of the modern locomotive. He emphasized the rather startling fact that the locomotive has reached the highest point in its development that is obtainable until a new means of stoking is available. The power of an engine depends upon the amount of coal it can burn and the amount of coal consumed depends upon the area of the grate surface and upon the ability of the fireman to shovel coal.

The locomotive is as complete a power plant as any stationary plant but, instead of spreading over several hundreds or even thousands of square feet of floor space, as the later may do, the locomotive is confined to a very limited space. Its width is limited by the clearance required of obstacles along the way; its height, by overhead construction; and its length by such equipments as turntables, round houses, etc., which it must use. The locomotive builder will sacrifice efficiency for more power. The most important question to him is not how economical the engine can be run but how much power it can develop. As the grate surface is limited by conditions over which the builder has no control, the problem is to increase the coal consumption per square foot of grate in order to increase the power. Instead of burning from 2 to 20 pounds of coal per hour per square foot of grate surface, as in the case of the stationary, the locomotive con-