

the first (not the ground) floor. It is isolated entirely from the general work of the building, being over the rooms of the physical department. The rooms have light exposure from three sides. The room which is used for students' demonstration and practical work is cut off from the research rooms, thus making interruptions to the latter from noise, etc., unlikely. For the same reason, the central hall is laid with cocoa matting. The work-tables of the research rooms get light from the east, south, and west, a variety which is of great value, especially as the east exposure has reflected light from the walls of the main building (this is also partly the case with the light from the west windows). The rooms are artificially lighted by combination gas and electric chandeliers from the ceilings, and have besides movable incandescent lamps over the work-tables. The dark room is also furnished with incandescent lights. The floors throughout are carefully laid in hard wood. The work-tables are braced diagonally from the walls by iron rods. The rooms are heated by steam radiators. The walls and ceilings are finished in dull white and the woodwork in dark walnut, colors being avoided in order to keep the physiological conditions of sight normal. Natural and colored light can be let into the dark room through the south wall. The central hall is lighted through glass panels in the doors.

The fittings of the laboratory have cost about \$450—a grant additional to the appropriation of \$1,100 for instruments. This does not include, however, the arrangements for lighting, heating, and the special flooring. It is probable that the cost would be slightly more in the United States. Of the original amount appropriated, moreover, \$300 is an annual allowance for the maintenance of the laboratory. The writer hopes, also, to have soon a paid assistant, who will be constantly at work in the rooms.

The laboratory will, it is hoped, serve two main purposes: First, it is used to illustrate the undergraduate courses in psychology in the University; and, second, it is designed to serve as a centre for advanced research in the new lines of experimental work. Being the only foundation of the kind in Canada,* it will repre-

sent what we are doing in this line in the Dominion. The Department of Education of Ontario undertakes with great liberality to publish the researches of students who do work of real merit, and to distribute them generously. Publications issued from other such centres everywhere will be received in return with much gratitude; and new ideas in matters of technique, arrangement, etc., especially detailed notices of new pieces of apparatus, reprints from the journals, and announcements of new discoveries, will be welcome.

Selections.

LABORATORIES OF HYGIENE.

On the occasion of the opening of the new laboratory of hygiene of the University of Pennsylvania on Monday, February 22nd, an address was delivered by Dr. John S. Billings, of the army. By the courtesy of the editor of the *Medical News*, in which the address is to be published in full, we are enabled to give the following extracts:

Laboratories planned and fitted for public use, offering to any one who is able and willing to pay a moderate fee and to submit to a few simple regulations not only opportunities for learning the details of the processes carried on therein, but facilities and means for making special research as he could only obtain otherwise at great expense and loss of time—such laboratories, I say, are all of comparatively recent date.

It is not yet twenty years since the first separate institution of this kind was established for hygiene—and even now there are not more than a dozen such laboratories, specially built and fitted for their purpose, in existence throughout the world. Of these the best known is probably that of the University of Munich, under the direction of Professor Pettenkofer, while the largest is that of Berlin.

This laboratory is the first structure of its kind erected in the United States, and it therefore opens a comparatively new field of work in this country. What is the nature of this field and what are its boundaries?

The object of hygiene is to preserve and to improve health, and there are few matters affecting

*The first in the British Dominion, as far as my information goes.