

shops, giving advice and direction to the students. The yearly course extends over ten months and the remaining two months are employed in doing remunerative work on railways or in factories. The Course lasts over four or five years and the plan is said to be popular with the manufacturers.

3. THE FOREST PRODUCTS LABORATORY, MADISON, WISCONSIN.

One of the most remarkable examples of co-operation in Research is that between the Forestry Department of the United States and the University of Wisconsin at Madison. The University erected a \$50,000 building on its own site, and agreed to supply water, light, and heat to the Department. The Department of Forestry have complete control, appoint and pay the staff, of whom there are sixty and more than one third of them experts of high standing. The staff is bound to supply a certain limited number of lecturers to University students who desire them. The Laboratory is organized under nine sections:—

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| 1. Maintenance. | 6. Wood Distillation. |
| 2. Engineering. | 7. Pulp and Paper. |
| 3. Timber Tests. | 8. Chemistry. |
| 4. Wood Preservation. | 9. Pathology. |
| 5. Wood Technology. | |

The building consists entirely of laboratories and offices. Every phase of wood investigation is carried on. Daily reports are made. The high-class of experimenters, thorough men of Research—the practical work for railway companies, lumbermen, and all the wood-using industries, suggest a suitable institution for Canada with its forests. The Forest Products Laboratory staff is supported entirely by the Federal Government—the local expense by the University.

COMMERCIAL CHEMICAL RESEARCH.

This is carried on in Kansas and Pittsburgh Universities under a distinguished scientist and author, who is a graduate of Toronto University—Prof. R. K. Duncan. His plan, to quote his own words, "is a mutually advantageous arrangement between manufacturing companies on the one hand, and the University on the other for the adequate solution of important manufacturing problems." Professor Duncan is a University professor, formerly of Kansas University, and still has supervision of his scheme there, but now resides in Pittsburgh, Pennsylvania, and is entirely paid by his University. His laboratory in Pittsburgh is a temporary building with accommodation for twenty-two experts—all of the highest class of experienced Research men. His