

TECHNICAL NOTES

FOREST PRODUCTS LABORATORY

U. S. FOREST SERVICE

MADISON, WISCONSIN

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NITROCELLULOSE FROM WOOD PULP

For over thirty years certain sporting powders have been derived in part from wood pulp, but only lately has there been any research looking toward the use of wood pulp in the production of cannon powder. The Forest Products Laboratory in recent experiments has succeeded in producing by all three pulping processes (the soda, sulphate, and sulphite) pulps which meet all surveillance tests for use in nitrocellulose manufacture. These pulps have been nitrated at the Picatinny Arsenal and run into powder of several calibers.

At certain steps in the process of manufacturing nitrocellulose, wood pulp can not be handled as easily as cotton, but at other points it yields to treatment more readily. On the whole, the differences in manufacturing are decidedly in favor of wood pulp. The yields are a little less than those obtained from cotton, but the material satisfactorily meets all laboratory tests for cannon powder.

Further work to reduce the cost of the wood-pulp product is now under way at the laboratory.