

# UNITED STATES PATENT OFFICE.

PAUL HARTMANN, OF HEIDENHEIM, WÜRTEMBERG, GERMANY.

## WOOD WOOL.

SPECIFICATION forming part of Letters Patent No. 339,291, dated April 6, 1886.

Application filed January 20, 1885. Serial No. 153,464. (Specimens.) Patented in Germany January 26, 1883, No. 26,903; in Austria-Hungary February 16, 1883, No. 17,111 and No. 26,901; in Belgium September 17, 1883, No. 62,611; in France September 17, 1883, No. 157,591; in England September 17, 1883, No. 4,444, and in Italy February 6, 1884, No. 16,363.

*To all whom it may concern:*

Be it known that I, PAUL HARTMANN, of Heidenheim, in the Kingdom of Würtemberg and Empire of Germany, have invented certain new and useful Improvements in Wood Wool, (which has been patented in the following countries: in Germany, No. 26,903, dated January 26, 1883; in Austria-Hungary, No. 17,111 and No. 26,901, dated February 16, 1883; in Belgium, No. 62,611, dated September 17, 1883; in France, No. 157,591, dated September 17, 1883; in England, No. 4,444, dated September 17, 1883, and in Italy, No. 16,363, dated February 6, 1884,) of which the following is a specification.

This invention relates to an improved absorbent for surgical operations, which is made from wood fibers and used with or without antiseptic substances; and the invention consists of an absorbent for surgical purposes, consisting of wood wool composed of carded wood fibers.

Cotton wadding or other light fabrics consisting of chemically-pure cotton, impregnated or not with antiseptic substances—such as sublimate, carbolic acid, salicylic acid, iodoform, &c.—have heretofore been used as absorbents for surgical purposes.

As absorbent cotton was comparatively expensive, a number of substitutes have been tried, such as peat, ashes, sand, and similar substances. These, however, have the disadvantage that they cannot be obtained pure enough, and that they have comparatively but a small degree of absorbent capacity.

I have ascertained by practical tests that carded wood fibers, which I term "wood wool," surpass as regard purity and absorptibility

any one of the above-mentioned substances as absorbents for all kinds of surgical operations and surgical bandages.

To prepare this improved wood wool, I use wood pulp, such as is used in the manufacture of paper, as obtained from wood by any of the known mechanical or chemical processes, and now found on the market as an article of commerce. The wood pulp or wood fibers are passed through a suitable carding-machine, which may consist of two rollers covered with cards or devices by which a carding action is exerted on the wood fibers. These rollers are revolved with great velocity, and change the wood fibers into a loose wool-like substance. By passing the fibers once or oftener through the machine, wood wool having a greater or smaller degree of looseness and fineness is obtained. The wood wool thus obtained may be impregnated with suitable antiseptic material or used in its pure state.

Practical tests have shown that wood wool has a high degree of absorptive capacity, absorbing about twelve times its own weight, or twice the quantity absorbed by cotton wool.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

An absorbent consisting of wood wool composed of carded wood pulp, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

PAUL HARTMANN.

Witnesses:

PAUL BUTTERSACK,  
W. FRACKLEY.