

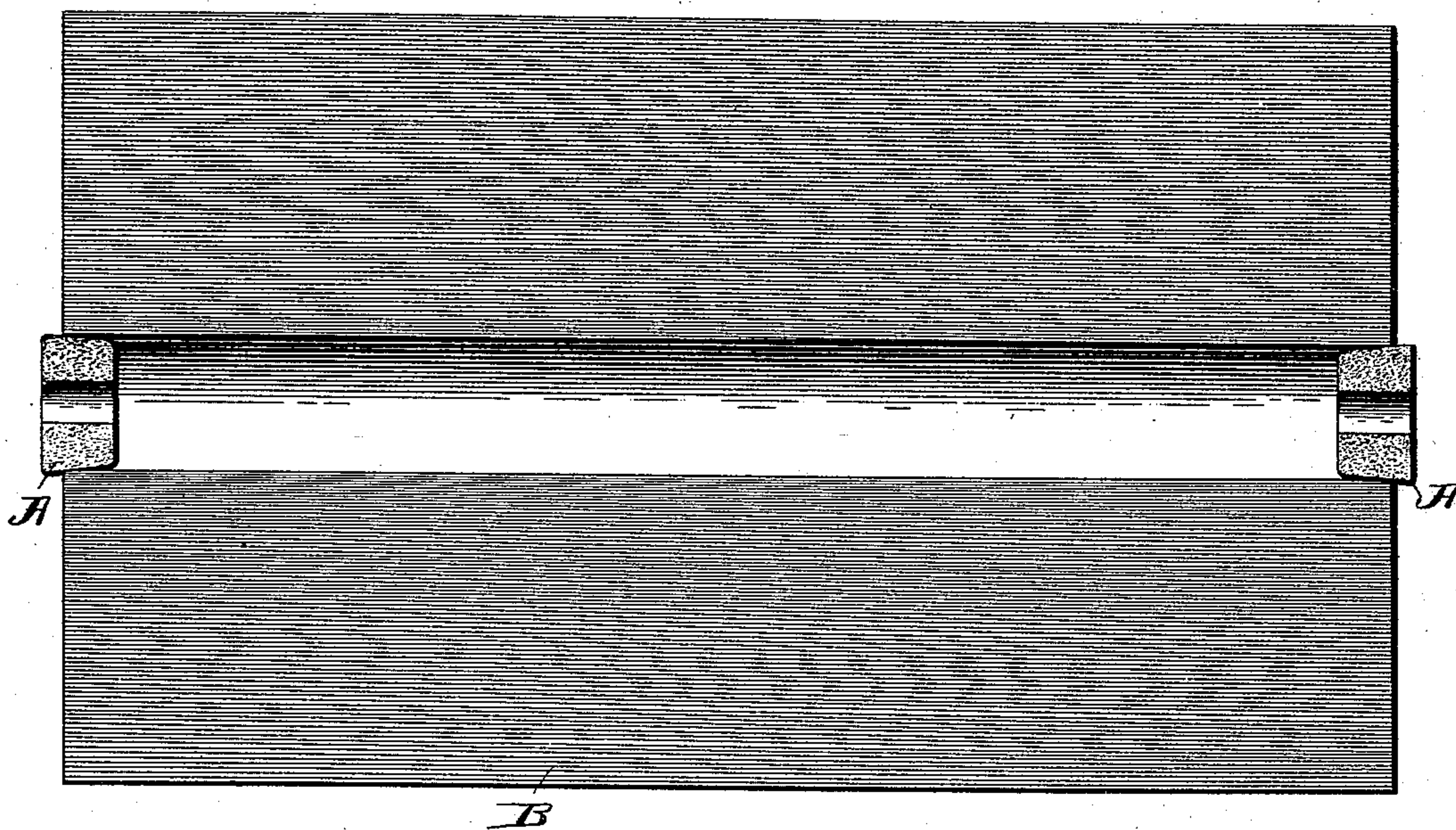
(No Model.)

D. L. McCORKINDALE.  
PLUG.

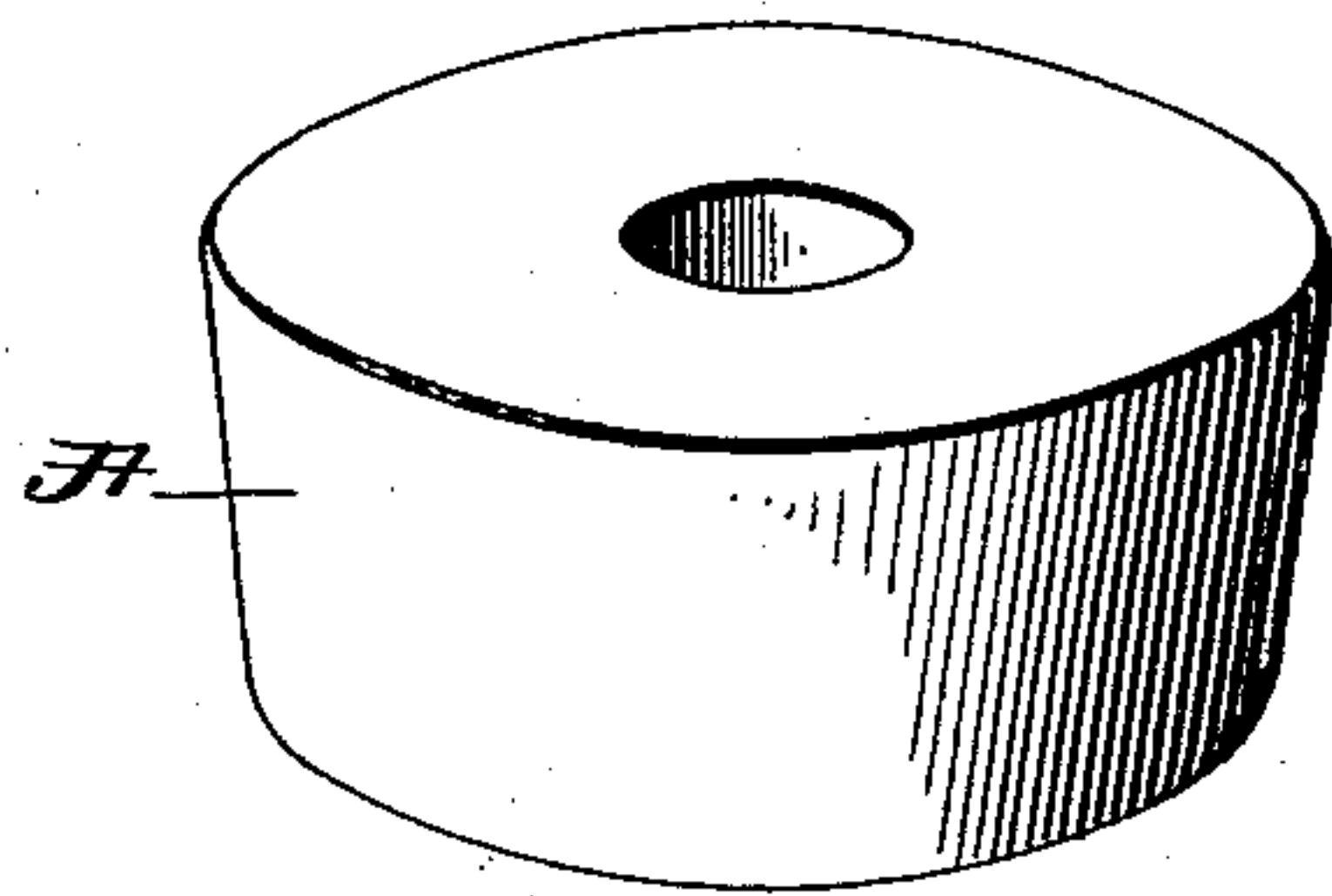
No. 572,365.

Patented Dec. 1, 1896.

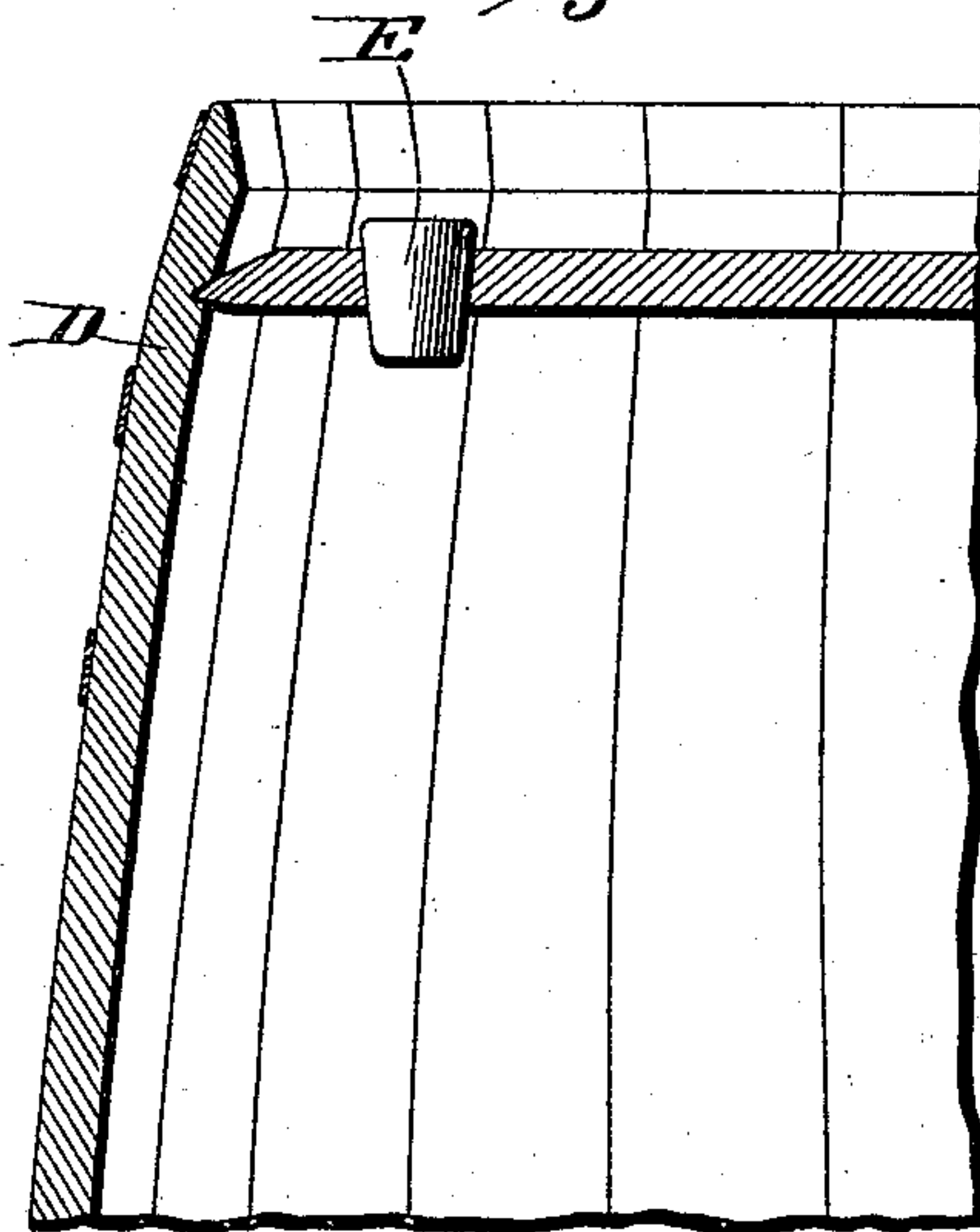
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses

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# UNITED STATES PATENT OFFICE.

DUNCAN L. McCORKINDALE, OF CHILDS, MARYLAND.

## PLUG.

SPECIFICATION forming part of Letters Patent No. 572,365, dated December 1, 1896.

Application filed January 2, 1896. Serial No. 574,106. (No model.)

*To all whom it may concern:*

Be it known that I, DUNCAN L. McCORKINDALE, a citizen of the United States, residing at Childs, in the county of Cecil and State of Maryland, have invented certain new and useful Improvements in Plugs, of which the following is a specification.

My invention relates to a new and useful article of manufacture, and has for its object to produce a certain class of articles from material which has heretofore gone to waste as being of no service; and it consists of molding into shape the waste products of paper-mills, such as the overflow or froth from the liquid compound from which paper is made, broken and dirty wood-pulp, dirty clay, and refuse fiber, such as dust from pickers and dusters, which on account of its particular ingredients and proportions thereof has not been heretofore put to any practical use.

In the manufacture of paper from pulp a solution is used which is composed of fiber, clay, and sizing, the latter usually being rosin, soda-ash, and alum, and in the manipulation of this liquid a certain amount of the ingredients thereof is separated from the liquid on account of being too fine to felt and float upon the top thereof and is permitted to run off by overflowing. This overflow is called "froth," and is of such quality as to be of no service in paper-making, and therefore is permitted to run to waste. I have found by experiment that this froth, combined with the other waste products above named and when properly treated and molded under pressure, produces a most excellent quality of plug, such as used in the central openings of paper-rolls.

The method of using these plugs is shown in Figure 1 of the drawings, the plugs being

designated A and the roll of paper B. Fig. 2 represents one of these plugs in perspective.

Heretofore these plugs have been made of wood, which required turning and boring, and when so made answered the purpose but poorly on account of their liability to split, chip, and warp; but by the use of plugs made in accordance with my improvement these disadvantages are entirely obviated, as the waste product, when molded under pressure, is firm and tenacious and has no tendency to warp, split, or chip, and yet is sufficiently elastic to take hold firmly upon the walls of an opening in which the plugs may be forced. On account of this elasticity and the other qualities mentioned this material produces a most excellent bung for barrels and the like, as shown in Fig. 2, in which D is the barrel, and E is the bung.

By the use of my improvement paper-mills are enabled to dispose of their waste stock in the production of the plugs before mentioned, therefore obviating the necessity of having to buy the above-described wooden plugs at a considerable cost, though of inferior quality for the purpose intended.

Having thus fully described my invention, what I claim as new and useful is—

As a new article of manufacture, a plug composed of froth and dirty wood-pulp, clay and refuse fiber, resulting from the manufacture of paper-making, and which is molded into shape, substantially as shown.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

DUNCAN L. McCORKINDALE.

Witnesses:

S. S. WILLIAMSON,

B. B. DUNBAR.