

(No Model.)

H. H. CLAYTON.

MACHINE FOR WINDING LAPS OF COTTON, &c.

No. 355,508.

Patented Jan. 4, 1887.

FIG:1.

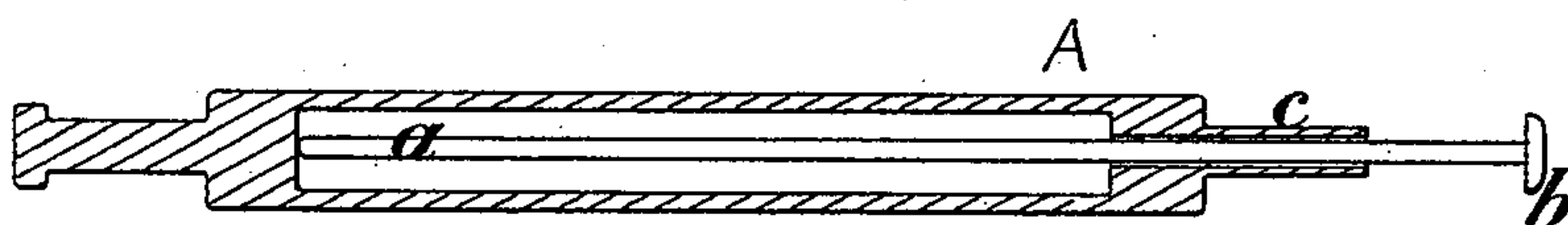


FIG:2.

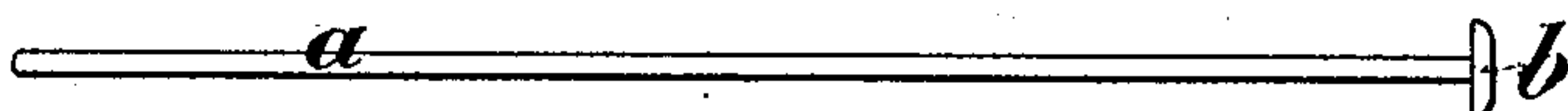
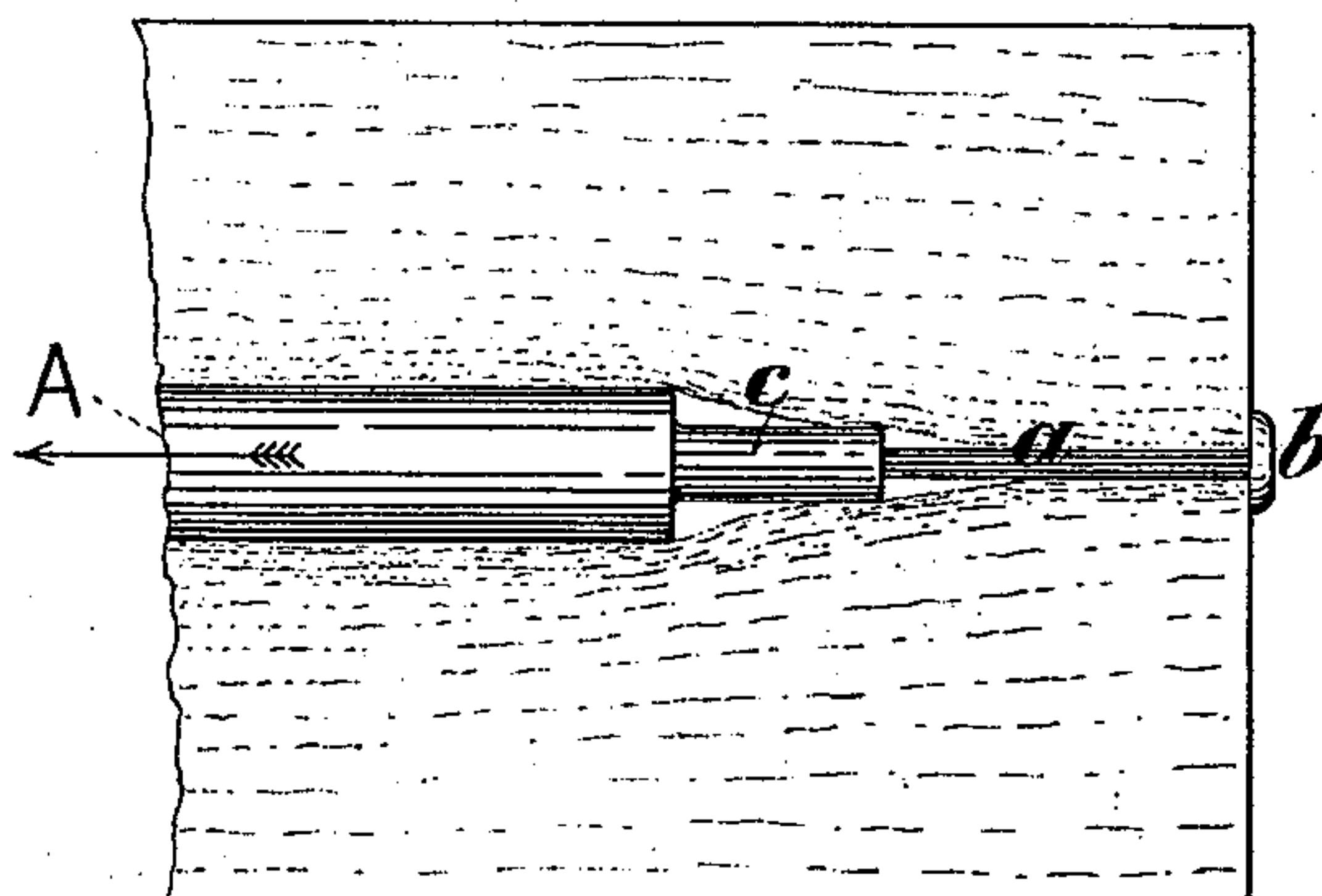


FIG:3.



Witnesses:
William D. Conner.
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Inventor:
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UNITED STATES PATENT OFFICE.

HENRY HOUGH CLAYTON, OF HYDE, COUNTY OF CHESTER, ENGLAND.

MACHINE FOR WINDING LAPS OF COTTON, &c.

SPECIFICATION forming part of Letters Patent No. 355,508, dated January 4, 1887.

Application filed October 5, 1886. Serial No. 215,389. (No model.) Patented in England October 17, 1877, No. 3,844.

To all whom it may concern:

Be it known that I, HENRY HOUGH CLAYTON, a subject of the Queen of Great Britain and Ireland, and residing at Hyde, in the county of Chester, England, have invented Improvements in Machines for Winding Laps of Cotton, &c., (for which I have obtained a patent in Great Britain, dated October 17, 1877, No. 3,844,) of which the following is a specification.

My invention relates, principally, to the laps of cotton formed in machinery for opening, beating, and cleaning the cotton preparatory to the carding operations, but it may also be employed in the treatment of other fibrous materials.

The cotton lap is formed by the lap-machines by winding a bat or layer of cotton upon a shaft or roller, and when so formed the said shaft or roller is withdrawn and a rod or skewer is inserted in its place. When the said shaft or roller is withdrawn, the cotton, by reason of its elasticity, expands so as entirely to occupy the space vacated by the said shaft or roller. Preparatory to the treatment of the cotton by the carding-engine a rod or skewer has to be inserted as nearly as may be in the center of the coiled lap.

Previously to my invention the operator has thrust the point of this rod through the lap, the result being that in many or in most cases the rod has not exactly occupied the position vacated by the said shaft or roller, and the layers of cotton have been pierced, whereby a portion of the lap has been rendered unfit to pass through the carding-engine, and sometimes a portion of the cotton has been thrust out by the end of the said rod. To remedy these defects is the object of my said invention. To this end I bore out the said shaft or roller to receive the said rod or skewer, or I employ a tubular shaft having a bore suitable to receive the rod or skewer, and I form a head upon one end of the rod or skewer. Previously to the withdrawal of the shaft or roller the rod or skewer is inserted within the said shaft or roller. When the shaft or roller

is withdrawn, the rod or skewer is left within the lap, the said head preventing the rod or skewer from being withdrawn along with the shaft or roller, and the cotton closes inward upon the said rod or skewer, which is thus left exactly in the required position within the lap.

In order that my invention may be fully understood I have appended hereunto a sheet of drawings marked with letters of reference.

Referring in this place to the said drawings, Figure 1 represents a longitudinal section of one of my improved shafts reduced in size, with the skewer therein. Fig. 2 represents a skewer or rod detached, and Fig. 3 represents a section of a portion of a lap with the shaft partly withdrawn.

The shaft A is hollow, as above described, and incloses a skewer or rod, *a*. The said skewer is formed or provided with a head, *b*, which is, by preference, larger in diameter than the gudgeon *c* of the shaft. The lap of cotton is formed upon the said shaft, as is usual. The skewer *a* is inserted within the hollow space in the said shaft either previously to or after the formation of the lap. The shaft is withdrawn from the lap in the direction indicated by the arrow in Fig. 3. When the said shaft is being withdrawn, the head *b*, by bearing against the lap, prevents the skewer from being withdrawn with the shaft. When the shaft is completely withdrawn, the skewer is left within the lap in the required central position.

I claim as my invention—

The combination of the tubular shaft and skewer, substantially in the manner as and for the purposes hereinbefore set forth and indicated.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY HOUGH CLAYTON.

Witnesses:

JAMES H. HANOR,
GEORGE DAVIES.