

(No Model.)

W. A. PHILPOTT, Jr.

FELT WHIPPER FOR PAPER MAKING MACHINES.

No. 321,312.

Patented June 30, 1885.

FIG. 2.

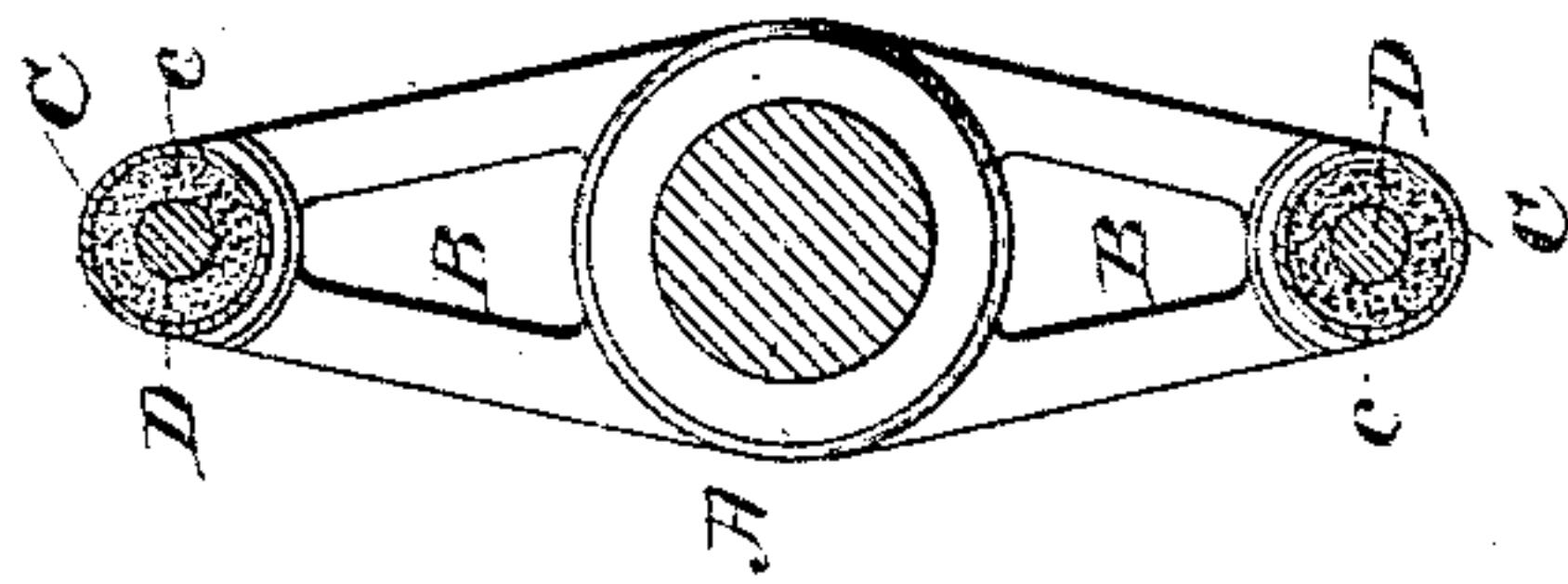
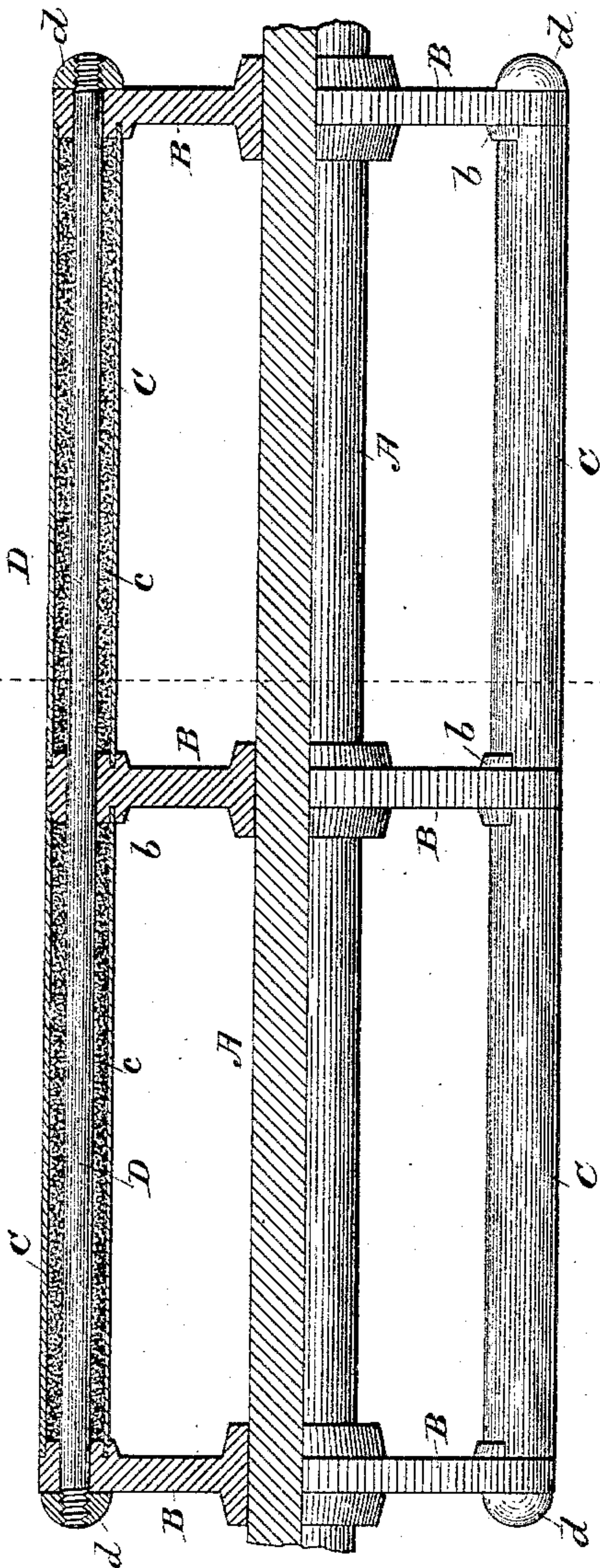


FIG. 1.



Attest.

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UNITED STATES PATENT OFFICE.

WILLIAM A. PHILPOTT, JR., OF NIAGARA FALLS, NEW YORK, ASSIGNOR
TO PHILPOTT & LEUPPIE, OF SAME PLACE.

FELT-WHIPPER FOR PAPER-MAKING MACHINES.

SPECIFICATION forming part of Letters Patent No. 321,312, dated June 30, 1885.

Application filed September 24, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. PHILPOTT, Jr., of Niagara Falls, in the county of Niagara and State of New York, have invented a new and useful Improvement in Felt-Whippers for Paper-Making Machines, which improvement is fully set forth in following specification.

This invention has reference more particularly to the felt whipper or beater of a paper-making machine, whereby the felt of such machine is kept in condition for use. It is applicable as well to wet machines for wood-pulp as to those machines ordinarily styled "paper-machines."

Heretofore the arms of the felt whipper or beater have been made of wood. These whipping-arms become rough in use and rapidly wear the felt they are designed to clean. Moreover, such whippers or beaters are not in themselves durable, for not only does the acting-surface soon deteriorate and become unfit for use, but the joints where the wooden and metal parts come together are liable to work loose.

The object of the present invention is to overcome these defects by providing a whipper or beater of novel and advantageous construction, all the parts, including the arms which strike the felt, being of metal, whereby increased efficiency in cleaning the felt without injury to the same, and greater strength and durability, are secured. The acting-surface of the whipper consists of a pipe or tube of metal, preferably brass, securely bolted to the ends of suitable arms projecting from the shaft by means of a long rod, which passes centrally through said pipe or tube and through holes in the ends of the aforesaid arms and fastened to the latter by means of nuts. The ends of the pipe or tube are let into circular grooves in the heads of said arms. Preferably, the space between the rod and its surrounding pipe or tube is filled with resin, asphaltum, or similar material to afford a firm support. There may be any desired number of such pipes or tubes supported on the shaft in the manner indicated.

The accompanying drawings, which form a

part of this specification, show a felt whipper or beater constructed in accordance with the invention, Figure 1 being a view of the device partly in elevation and partly in longitudinal section, and Fig. 2 a cross-section of the same.

On the shaft A of the whipper or beater are secured metal arms or supports B, projecting radially therefrom. As shown, there are three such arms or supports for each whipping-arm, but the number may be varied. At the outer ends of arms B are formed heads, b, which are provided with a circular groove in which is inserted the end of pipe or tube C, of metal, preferably brass. The head b of the middle arm is grooved on both faces. This pipe or tube C constitutes the whipping-arm or part that strikes the felt in cleaning it. The ends of the pipe or tube fit the heads b both externally and internally, thereby making a firm joint, while presenting a perfectly smooth surface to act upon the felt. The rod D passes longitudinally through the center of tube C, and also through holes provided in heads b of arms B. At its extremities it is screw-threaded and bolted to the outside arms B by nuts, d, firmly pressing the ends of pipe C into their grooves and holding the parts together. The space between rod D and the surrounding pipe or tube C is preferably filled with a supporting material, e, such as resin, asphaltum, or the like.

It is obvious that modifications may be made in the dimensions, proportions, and details of construction of the device without departing from the spirit of the invention. For example, the device as herein shown is provided with two whipping-arms, but any other number may be used.

I claim—

1. A felt whipper or beater for paper-making machines, having the whipping-arm made of a tube of brass or other metal, substantially as described.

2. A felt whipper or beater for paper-making machines, comprising a shaft, metal arms or supports projecting therefrom, and a whipping arm or arms consisting of a tube or

tubes of brass or other metal set in grooves in the heads of said arms or supports, substantially as described.

3. A felt whipper or beater comprising a
5 shaft, arms projecting therefrom and carrying at their ends a tube or pipe of brass or other metal, and a rod passing through said tube and secured at its ends to said arms, substantially as described.

10 4. The whipping-arm consisting of a metal

tube filled with resin, asphaltum, or similar material, substantially as described.

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

WM. A. PHILPOTT, JR.

Witnesses:

D. L. BARTON,

HENRY HIGHLAND.