

*S. Wing,
Hat Shaping Mach.*

No. 93,783.

Patented Aug. 17. 1869

Fig. 1.

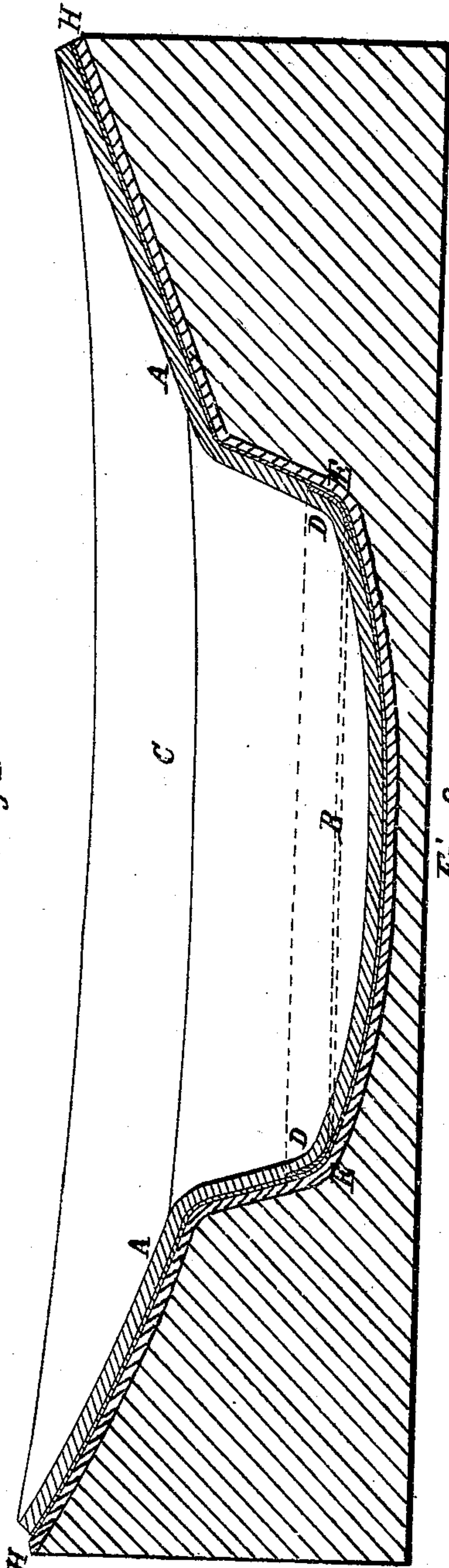


Fig. 2.



Witnesses:

*Chas. Nida
Jno. F. Brooks*

Inventor

*S. Wing
Mumma & Co*

United States Patent Office.

SAMUEL WING, OF MUNSON, MASSACHUSETTS.

Letters Patent No. 93,783, dated August 17, 1869.

IMPROVEMENT IN HAT-SHAPING MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, SAMUEL WING, of Munson, in the county of Hampden, and State of Massachusetts, have invented a new and useful Improvement in Hat-Shaping Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in that class of hat-shaping or pressing-machines in which a rubber or other elastic diaphragm or bag is used to press the body into the metal female mould, the same being distended by the pressure of water, condensed air, or other equivalent means.

The invention consists in the application to such bags of a metallic supporting-ring, to insure the proper formation of the "square," or angles of the hat-bodies, as hereinafter fully specified.

Figure 1 represents a sectional view of the bag, hat, and mould, in their proper relative positions.

Figure 2 represents a detached section of my improved stiffening-ring.

Similar letters of reference represent corresponding parts.

The woven or felted hat-bodies, H, after being formed, are placed in the female die or mould I, (both shown in red,) and the India rubber, or other flexible and elastic bag A, which is of a form approximating that designed to be given to the said bodies, is placed between them, and the hat pressed between them by suitable means.

B represents the space for the crown, and U the part whereon the brim is pressed.

For imparting the force necessary to suitably press the hat, the bag A is filled with corn-meal, mixed with water, on the upper surface of which pressure is applied by any preferred means, the sides being confined by a hollow cylinder, pressed down upon the outer edge of the brim of the bag. This bag or dia-

phragm may, if preferred, be forced into the mould by atmospheric or hydraulic pressure.

The method of pressing with the bags, as commonly constructed, does not have the same effect in the angles at D as at the other parts of the surface, whereby the bodies are not so well defined as they should be at these angles.

This result is due mainly, as I suppose, to the fact that the pressure being of a hydrostatic nature, has less area in these angles to act upon, proportionately to the resistance of the bag, which is here greater, owing to the form, than elsewhere.

To overcome this difficulty, I propose to introduce into these angles, and all others, in bags of any form, adapted to hats of any shape, metallic angle-shaping bands, E, which, at all times, preserve the requisite shape of these bags in the angles, whether under the press or not; and to allow them to be self-adjusting to the size of the holders into which the bags are placed, I separate the rings, as at F, and apply rigidly to the end of one part, by soldering or otherwise, a short section, G, lapping by the other end, whereon the latter may work back and forth to some extent, to fit into holders having slight variations of size.

I propose to apply these rings to the extension of the bags, and secure them, by placing an additional outer dressing, H, of India rubber, and vulcanizing it thereon.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

An elastic and flexible hat-pressing bag, A, provided with metallic angle-rings, E, substantially as specified.

The above specification of my invention signed by me, this 6th day of May, 1869.

SAMUEL WING.

Witnesses:

FRANK BLOCKLEY,
C. L. TOPLIFF.