

(No Model.)

2 Sheets—Sheet 1.

E. TWEEDY.

DEVICE FOR HOLDING HAT BODIES UPON EXPANSIBLE HAT BLOCKS.

No. 283,363.

Patented Aug. 14, 1883.

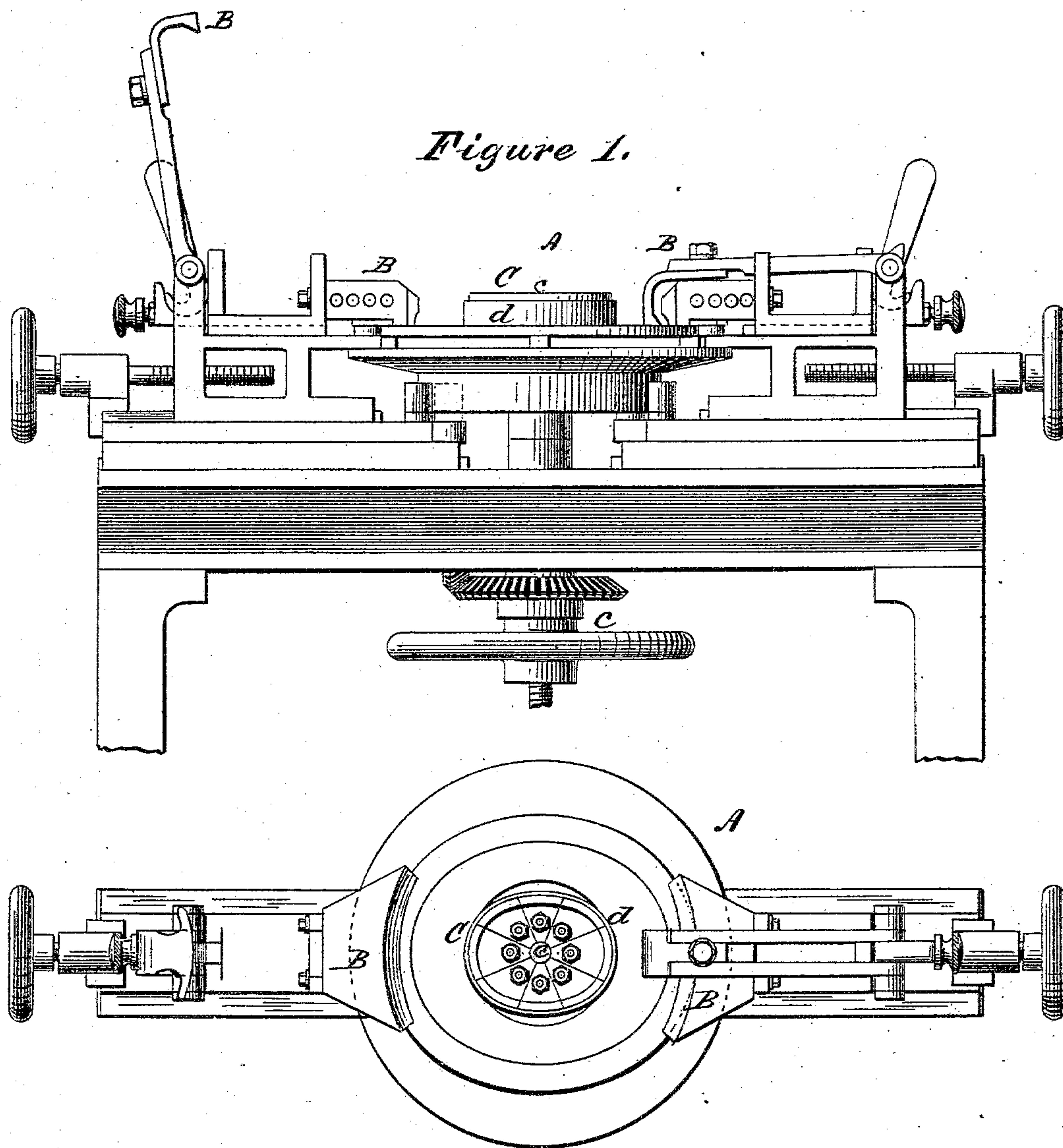


Figure 2.

Witnesses:

Geo. W. Mather

Bern. S. Vetterlein

Inventor:

Edmund Tweedy,
By his attorney,

Henry L. Brewster

(No Model.)

2 Sheets—Sheet 2.

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Figure 3.

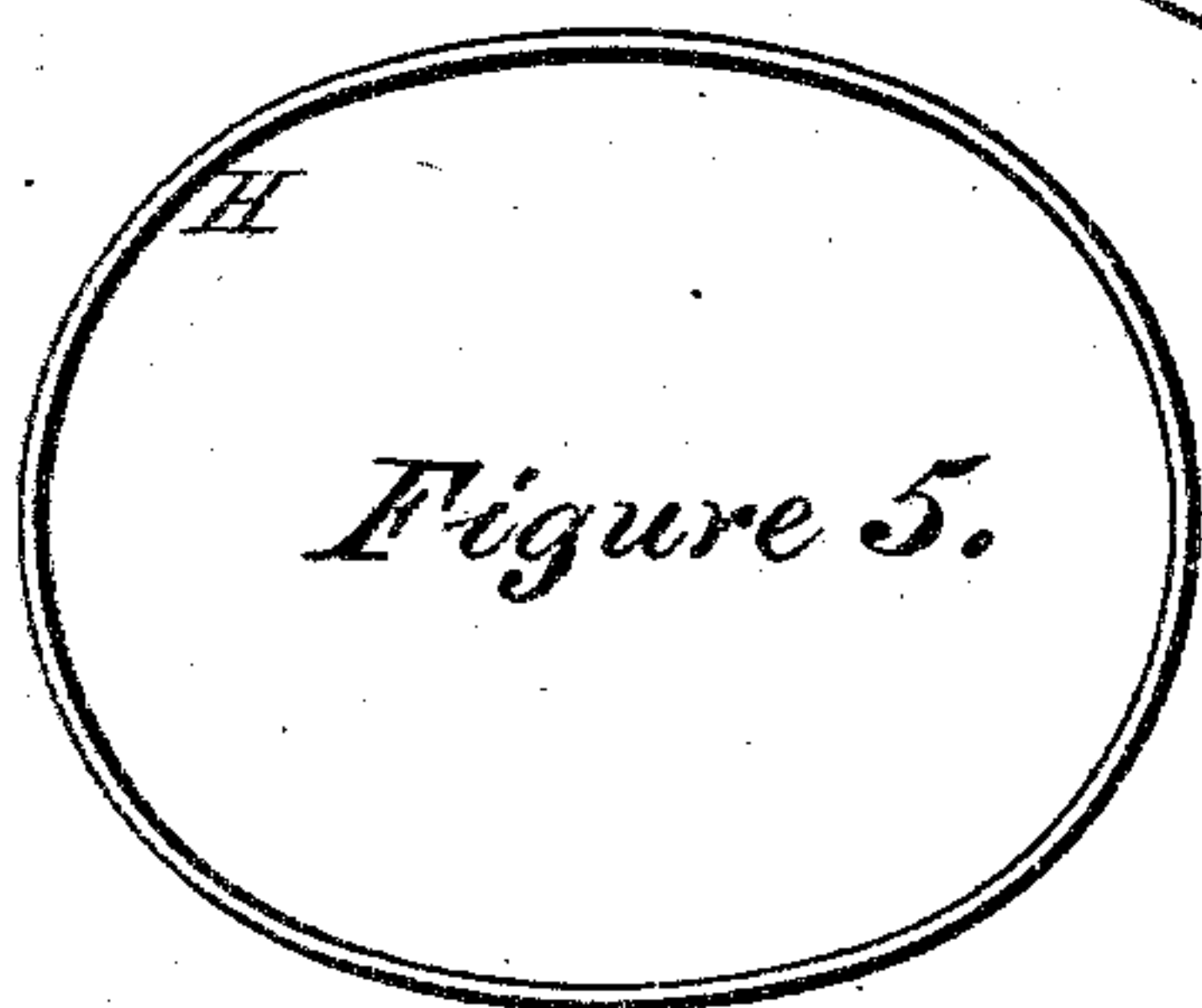
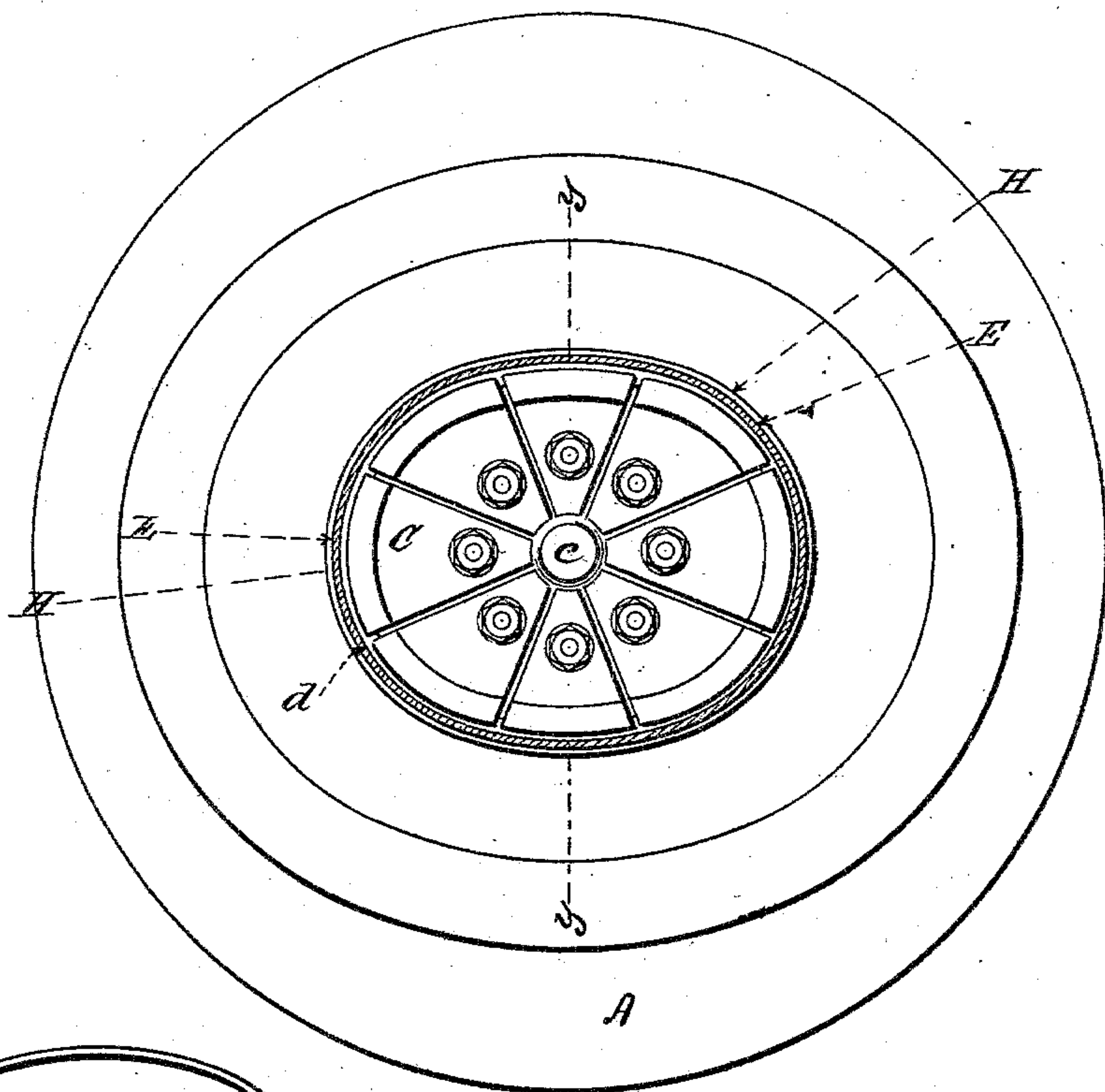


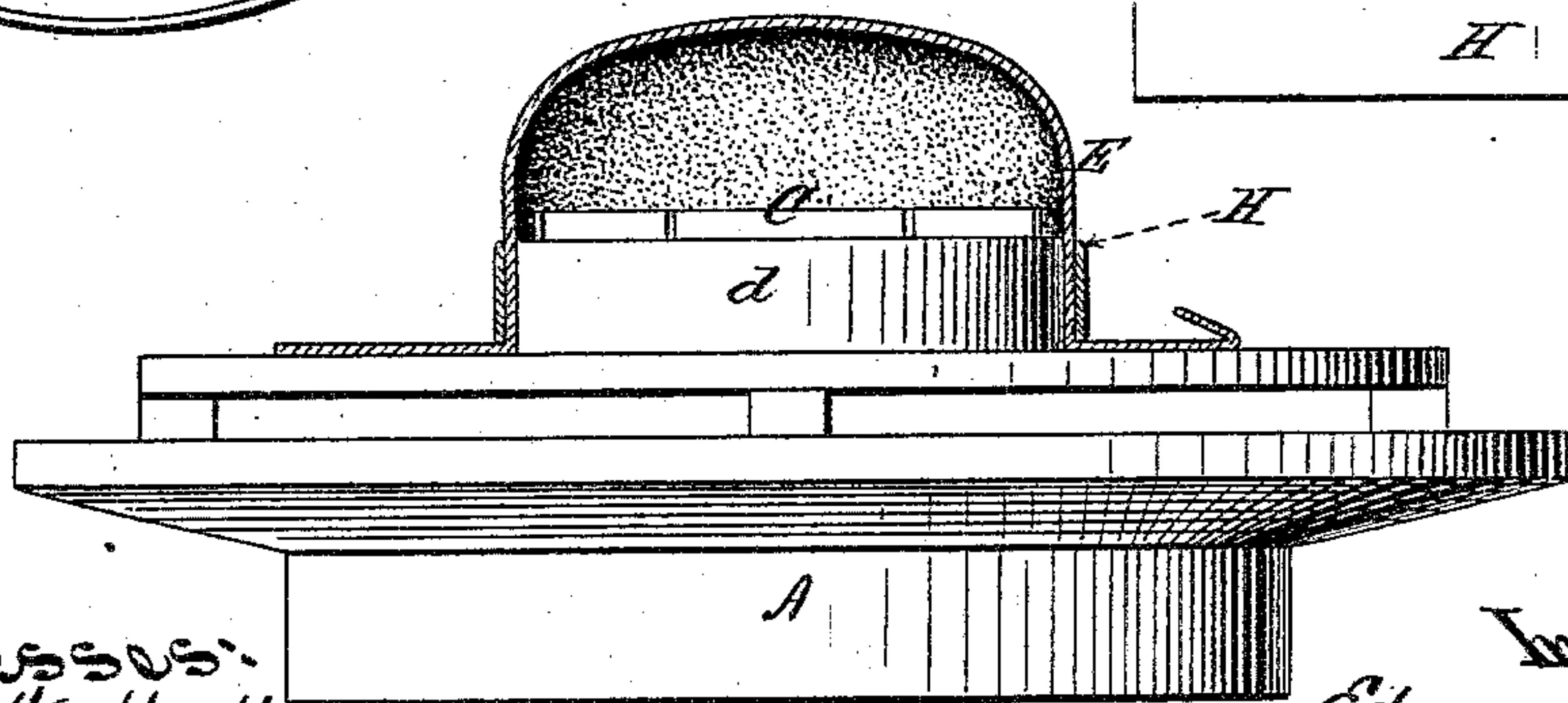
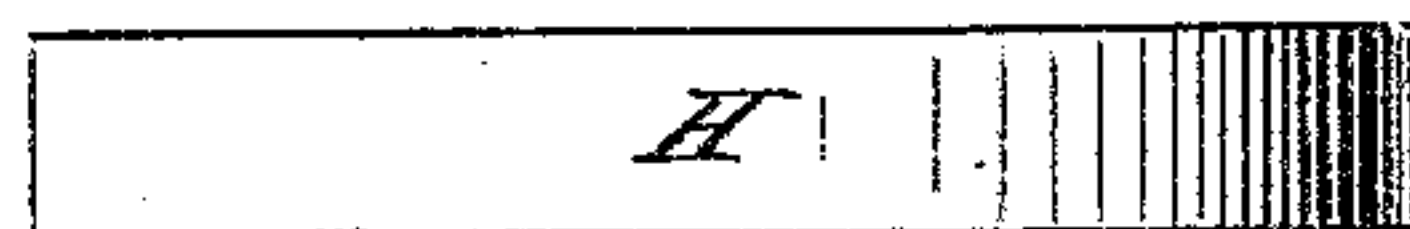
Figure 5.

Figure 6.



Figure 4.

Figure 7.



Witnesses:

Geo. W. Miatt

Bern. J. Petterlein.

Inventor:

Edmund Tweedy,

By his Attorney,

Henry L. Brevoort

UNITED STATES PATENT OFFICE.

EDMUND TWEEDY, OF DANBURY, CONNECTICUT.

DEVICE FOR HOLDING HAT-BODIES UPON EXPANSIBLE HAT-BLOCKS.

SPECIFICATION forming part of Letters Patent No. 283,363, dated August 14, 1883.

Application filed July 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, EDMUND TWEEDY, of Danbury, county of Fairfield, and State of Connecticut, have invented a certain new and useful combination of devices for holding hat-bodies upon expansible hat-blocks during the various processes of brim-cutting, brim-curling, finishing, &c.; and I do hereby declare that the following specification, when taken in connection with the accompanying drawings, is a full, clear, and accurate description of the same, enabling those skilled in the art to practice my invention.

Figure 1 is a side elevation of the upper part of a brim-curling machine which I have selected, by way of example, for the purpose of illustrating my invention. Fig. 2 is a top view of the same. Fig. 3 is an enlarged plan, showing an expansible hat-block and devices appertaining thereto, with the hat in position and shown in section. Fig. 4 is a side view of the same on the plane *yy* of Fig. 3, the hat also being shown in section, with one side of the brim curled and the other not curled. Fig. 5 is a top view of the ring which is to surround my hat when the same is upon the expansible block. Fig. 6 is a side view of a ring curved horizontally to suit the shape of some hats. Fig. 7 is a side view of a ring which is straight horizontally.

In the holding of hat-bodies upon expansible blocks friction has usually been relied upon between the outer surface of the hat-block and the inner surface of the hat; but to get a sufficiently firm hold upon the hat so much force has to be exerted that the hat-body is stretched, so that it becomes of a size larger than was intended; and this is particularly liable to happen when the hat is of a very delicate texture.

I have applied for patents upon inventions of my own, which consist in the use of pins, placed upon the periphery of expansible blocks, used with curling mechanism, and also in the use of roughened surfaces upon the periphery of the blocks, which roughened surfaces were not intended to penetrate the material of the hat, and in this way differed from the pins before mentioned. However, these methods are not applicable to some kinds of hats, and, though better than the old one of using smooth-surfaced blocks, do not answer in every case.

My present invention consists of the combination of an expansible hat-block with a ring of metal, or the like, which, when the block is contracted and the hat is placed thereon, is slipped down over the outside of the side crown of the hat, which it is intended to fit substantially into the position which is usually occupied by the hat-band. When the block is now expanded, the material of the hat is compressed between the outer surface of the block and the inner surface of the metallic ring, the hat being held as in a vise, so that it cannot turn or shift upon the block, while its entire substance between the block and ring is utilized to hold the hat in position without enlarging the hat, as the yielding quality of the felt, so far as the stretching goes, is kept within limits. The ring is preferably of metal, and its size of course depends upon the size of the hat-body. The shape of the ring should be such that it will conform more or less closely to the shape of the hat-block when expanded. The ring is best made of copper, tin, or the like material, which yields slightly, not in the sense that it stretches, but in its capacity to change its shape, if bent or distorted, so that it may fit the shape of the block when expanded. The ring should be, say, one-half ($\frac{1}{2}$) of an inch in height; but this dimension may be varied to suit circumstances. The strip which composes the ring should have its ends firmly fastened together, so that they are not liable to tear apart under the strain to which the device is subjected.

Other materials than metal might be used for the ring; but whatever material is used, it must be capable of bearing the necessary strain without undue stretching, and for this reason I prefer metal, as it stretches the least, is the least bulky, and is strong and able to bear a considerable strain.

In the drawings, at A, I have represented a portion of the frame of a hat-brim-curling machine of known construction. At BB are the curling-tools, which operate upon the brim of the hat while the same is being revolved, and which curling-tools may be adapted for any form of brim. At *c* is the mechanism for expanding the expansible hat-block C, which block, when the expanding-cone is withdrawn, is caused to retract by the action of the rubber band *d*, which, in the machine I have se-

lected for illustration, forms the outer surface of the hat-block, or that surface which bears against the inner surface of the hat-body. At E in Figs. 3 and 4 the hat is shown in position upon the block C. At H is the ring, preferably of metal, and outside of the hat-body E, and against the inner surface of which ring and the outer surface, *d*, of the expansible block C the hat-body E is compressed and held when the hat-block is expanded.

The rim may, if desired, be shaped horizontally, as at Fig. 6, and in which figure the ring is shown as having a horizontal curve, which adapts it for use according to some form of hat-bodies.

Though I have shown my invention as used with a brim-curling machine, I in no way mean to limit it to such use, for whenever an expansible block is used, and it is desired to hold a hat firmly thereon without stretching or turning, my invention will be applicable.

Although my invention is of the greatest value when used with thin and delicate hats, it is also serviceable for other kinds of hat-bodies, as it enables a very firm connection to be made between the hat and the block without in any way injuring the hat-body itself.

I am aware that rings have been used with non-expansible blocks; but a ring so used has to be forced downward over the surface of the

hat while pressed very tightly against the same, which action is liable to injure the outside of the hat. With my invention the ring is slipped over the hat, and the block is then expanded, thus obviating all necessity for moving the ring over the surface of the hat after any forcible contact has taken place between the outer surface of the hat and the inner surface of the ring.

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

1. The combination of an expansible hat-block and ring to surround the outside of the hat, and against the inner surface of which and the outer surface of the block the hat can be clamped and held, substantially as herein described.

2. The combination of the expansible hat-block and a ring to surround the hat, which ring is shaped to suit the curve of the hat horizontally, substantially as herein described.

3. A ring for an expansible hat-block, which is practically unyielding circumferentially, but which is sufficiently flexible to conform to the shape of the hat-block, substantially as herein described.

EDMUND TWEEDY.

Witnesses:

HENRY L. BREVOORT,
JOSEPH L. LEVY.