No. 671,157. Patented Apr. 2, 1901.

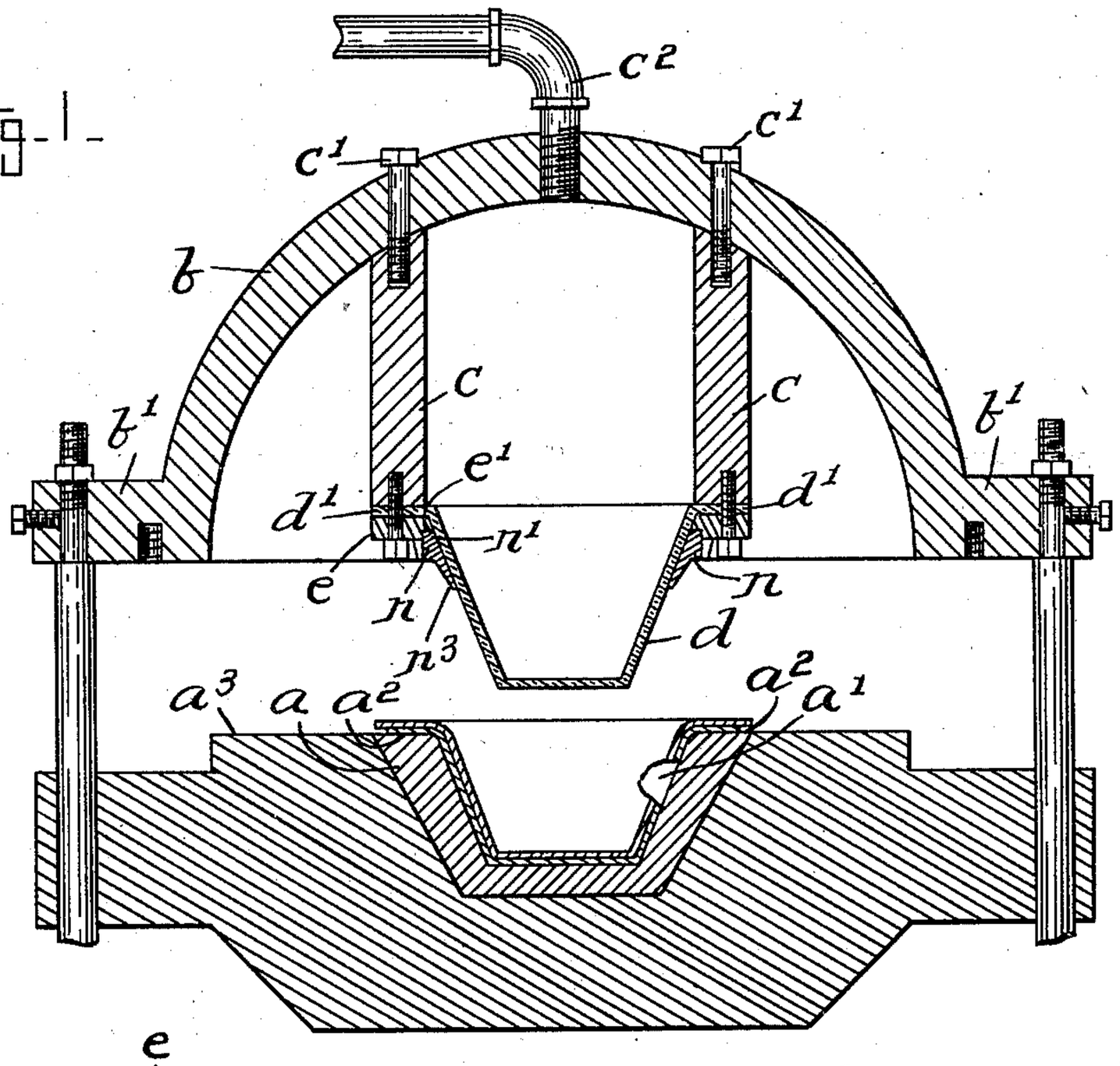
W. B. BLACKWOOD.

HAT SHAPING MACHINE.

(Application filed Dec. 18, 1900.)

(No Model.)

Fig. 1.



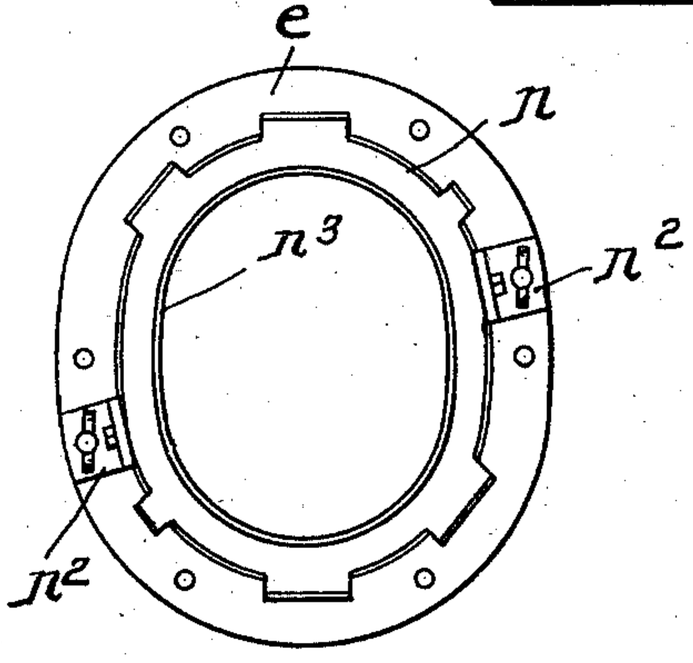


Fig. 2.

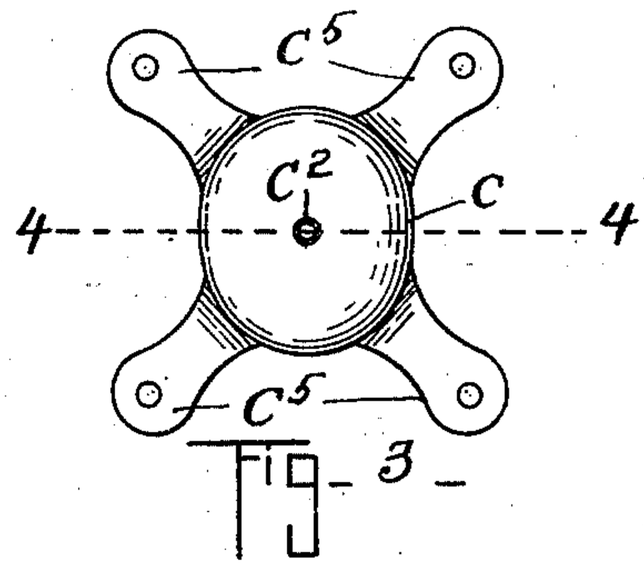


Fig. 3.

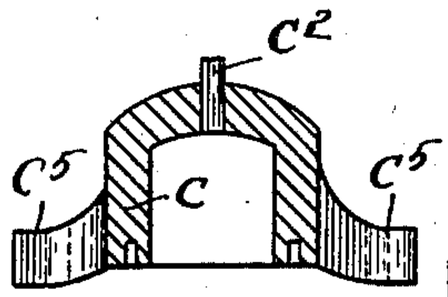


Fig. 4.

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UNITED STATES PATENT OFFICE.

WILLARD B. BLACKWOOD, OF MILFORD, MASSACHUSETTS.

HAT-SHAPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 671,157, dated April 2, 1901.

Application filed December 18, 1900. Serial No. 40,254. (No model.)

To all whom it may concern:

Be it known that I, WILLARD B. BLACKWOOD, of Milford, county of Worcester, State of Massachusetts, have invented an Improvement in Hat-Shaping Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to improve the construction of hat-shaping machines whereby the crown of the hat may be pressed, and thereby shaped, while the brim remains unpressed. For certain lines or classes of work this is important.

In accordance with this invention any usual or suitable die is employed having a crown-receiving recess and a brim-support, and a hydraulic dome or head is provided having at its lower end a hat-bag and also having at its lower end a ring which surrounds the base of said hat-bag and which enters the recess in the die, and thereby closes the gap between the die and dome when said parts are brought together. Detachable fastenings are preferably provided for said ring, so that rings of different sizes may be employed. The hydraulic dome may consist of a hemispherical shell having a cylinder contained within and secured to it, to the lower end of which the hat-bag is attached, in which case my improved form of dome may be applied to hat-shaping machines already in common use, or said dome may be made as a cylinder having an integrally-formed top wall and also having supports projecting laterally from it, also formed integral therewith. In either case, however, a ring will be provided at the lower end of the dome which surrounds the base of the hat-bag and enters the recess in the die when the parts are brought together. The ring will be formed or provided with a tapering portion which enters the recess in the die.

Figure 1 shows in vertical section a sufficient portion of a hat-shaping machine to illustrate my invention. Fig. 2 is a plan view of the detachable ring, which is provided at the lower end of the hydraulic dome and surrounds the base of the hat-bag and which forms the essential feature of my invention. Fig. 3 is a plan view of a modified form of hydraulic dome; and Fig. 4 is a vertical section of the hydraulic dome shown in Fig. 3, taken on the dotted line 4 4.

The die a, which may be of any usual or suitable construction having a crown-receiving recess a' and a brim-support a^2, is placed in a suitable die-holder a^3, and means (not shown) will be provided for moving said die-holder toward and from the hydraulic dome or head.

b represents a hemispherical shell, which forms a part or wall of the hydraulic dome, and said shell is provided with a flange b', by which it is connected to suitable upright supports. A cylinder c is contained within and secured to the top of said shell b by screws c'. The lower end of said cylinder c terminates just above the plane of the lower end of the shell, and this cylinder forms the main body portion of the hydraulic dome or head.

c^2 represents the inlet-pipe.

To the lower end of the cylinder c a hat-bag is attached, which, as herein shown, comprises a main portion d, having a narrow flange d'. The flange d' rests against the lower end of the cylinder c, and upon said flange a ring e is placed, and screws pass through said ring and flange to thereby attach the hat-bag to the lower end of the cylinder. The ring e is formed or provided interiorly with a shoulder e'. Another ring n, provided with a projection or flange n', is adapted to abut against a shoulder formed on the ring e, and said ring is attached to the under side of said ring e by detachable fastenings of any suitable description, and, as herein shown, angle-irons n^2 are employed which are connected to said rings. The ring n has a tapering portion n^3, which is adapted to enter the crown-receiving recess formed in the die for a short distance when said die is raised, and thus serves to close the gap or space between the die and dome and thereby prevent the hat-bag, which is composed of rubber, from being forced into said gap. The hat to be shaped or pressed is placed in the die with its brim resting on the brim-support, and the usual lining is then applied. Then said die is raised to a predetermined elevation, at which time the tapering portion of the ring enters the crown-receiving recess more or less, so as to effectively close the gap between the die

and dome, and then the pressure will be applied.

It will be seen that when the die is raised and the tapering portion of the ring *n* has entered the recess the brim, which rests on the brim-support, will not be pressed.

Instead of making the hydraulic dome as shown in Fig. 1, said dome may be constructed as shown in Figs. 3 and 4, wherein a cylindrical shell *c* is formed integral with a top wall and integral supports c^5 projecting laterally from it, said supports being adapted to be attached to the upright supports of the machine.

I claim—

1. In a hat-shaping machine, the combination of a die and a hydraulic dome having a hat-bag at its lower end, and a ring at the lower end of said dome, surrounding the base of said hat-bag, which enters the recess in the die and thereby closes the gap between the die and dome, when said parts are brought together, substantially as described.

2. In a hat-shaping machine, the combination of a die and a hydraulic dome having a hat-bag at its lower end, and a ring at the lower end of said dome, surrounding the base of said hat-bag, which enters the recess in the die and thereby closes the gap between the die and dome, when said parts are brought together, and detachable fastenings for said ring, substantially as described.

3. In a hat-shaping machine, the combination of a die having a crown-receiving recess and a brim-support, and a hemispherical shell having a cylinder contained within and secured to it, to the lower end of which a hat-bag is attached, substantially as described.

4. In a hat-shaping machine, the combination of a die having a crown-receiving recess and a brim-support, and a hemispherical shell having a cylinder contained within and secured to it, to the lower end of which a hat-bag is attached, and a ring at the lower end of said cylinder, surrounding the base of said hat-bag, which enters the recess in the die when said parts are brought together, substantially as described.

5. In a hat-shaping machine, the combination of a die having a crown-receiving recess and a brim-support, a hydraulic dome, a hat-bag secured to the lower end of said dome by a ring and suitable fastenings, and another ring, surrounding the base of said hat-bag, detachably connected to the aforesaid ring and having a tapering portion which enters the recess in the die, when the parts are brought together, substantially as described.

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

WILLARD B. BLACKWOOD.

Witnesses:
CHESTER J. GERRY,
CLIFFORD A. COOK.