

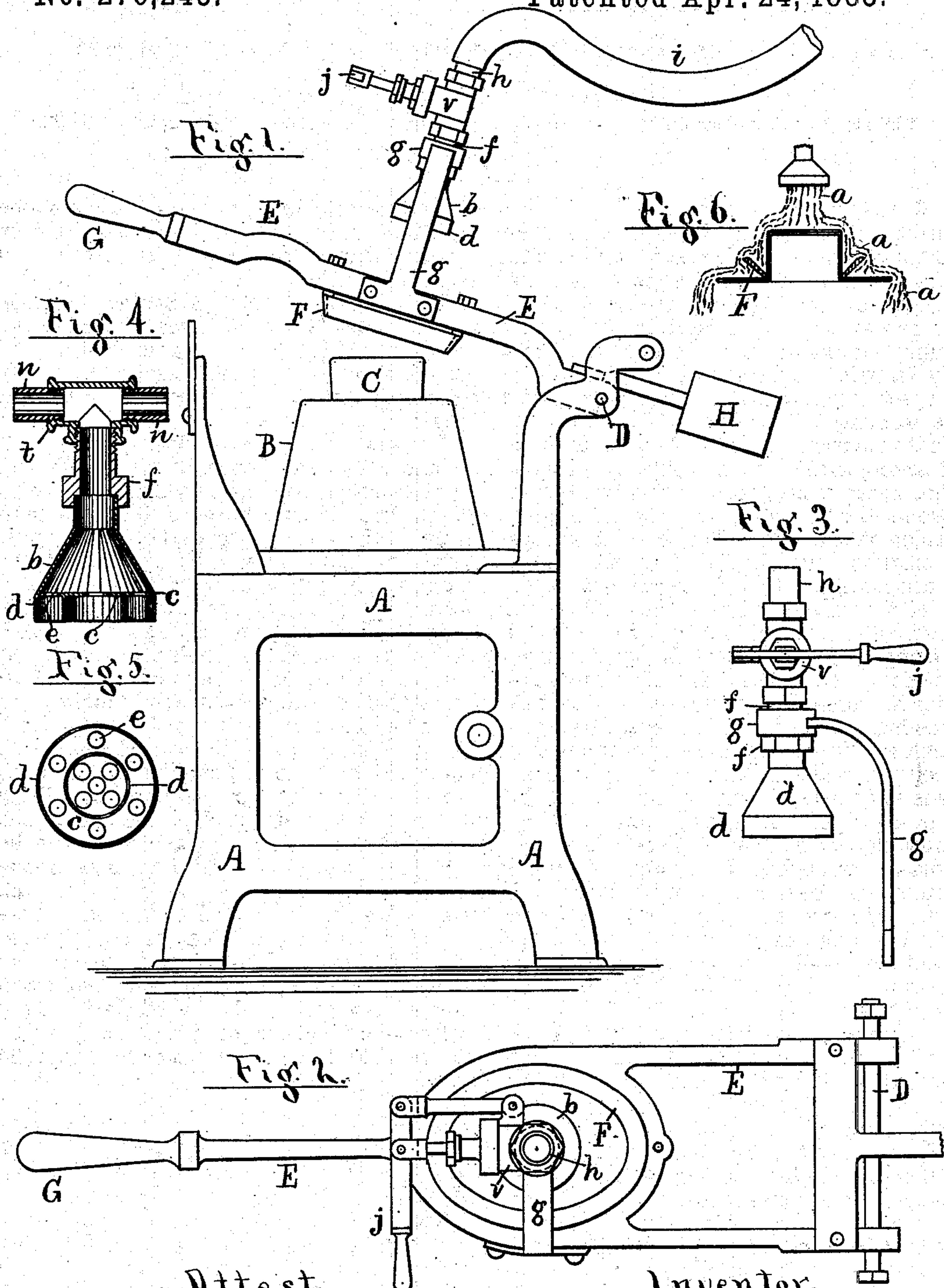
(No Model.)

H. C. HAULENBECK.

HAT COOLING APPARATUS FOR BLOCKING MACHINES.

No. 276,243.

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Attest.
Wm. D. Crane
W. F. D. Crane

Inventor.
H. C. Haulenbeck per
Thos. S. Crane, atty.

UNITED STATES PATENT OFFICE.

HENRY C. HAULENBECK, OF ORANGE, NEW JERSEY.

HAT-COOLING APPARATUS FOR BLOCKING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 276,243, dated April 24, 1883.

Application filed November 7, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. HAULENBECK, a citizen of the United States, residing in the city of Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Hat-Cooling Apparatus for Blocking-Machines, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention consists in the combination and arrangement, herein described, of a cold or hot water supply pipe and valve with the sectional hat-block found in all such machines. In using such machines heretofore it has been customary to cool the hat, when stretched to the desired shape by the expanding mechanism of the machine, by pouring cold water thereon with a dipper, a great quantity of water being used in such process and considerable time and care being required from the operator to secure the best results. As the band of the hat is subjected to the severest strain in blocking, it is obvious that it requires to be thoroughly cooled as soon as it is shaped, and this is seldom accomplished by the ordinary use of the dipper, because the water is thrown against the hat with some force and most of it splashes off of the sides, instead of running down into the oval former which shapes the band. By my invention the water is applied to the hat with perfect uniformity at the most advantageous point and operates so effectively in practice as to save about one-half the water formerly employed.

My invention may be carried out in a variety of ways; but I have shown the one I consider best in the annexed drawings, and referred to others herein.

Figure 1 is a side view of an ordinary hat-blocking machine with my improvement. Fig. 2 is a plan of the band-former and its carrying-lever, having my invention attached thereto. Fig. 3 is a front view of the cooling apparatus detached from the carrying-lever. Fig. 4 is a sectional view of the distributor with a T-pipe connection, and Fig. 5 is a view of the under side of the distributor and its discharge-apertures. Fig. 6 shows the application of the water.

A is the frame of the blocking-machine, B

the brim-stretching levers, and C the sectional hat-block, these parts being shown in mere outline, as their construction is already well known.

D is the usual fulcrum for the lever E, which latter carries the band-former F and is provided with a handle, G, to raise and lower it at pleasure. A counter-balance, H, is also shown, as usual, to balance the lever when raised.

I have shown by dotted lines *a* in Fig. 6 the manner in which I apply the water most advantageously—namely, in a current or series of jets directed upon the tip of the hat, whence it naturally runs down over the sides upon the brim, is thrown into close contact with the band by the inclined inner sides of the band-former F, and flows thence over the brim, by which course every part of the hat is quickly cooled with the least expenditure of water, because all the water passes over the hat instead of being splashed off, as in hand-dipping. To secure such an application of the water, I prefer to mount a water pipe or distributor over the hat-block C, supporting the same upon the lever E, so that it may be automatically removed from the block when the hat is to be taken off and replaced by another. The distributor is shown of conical form, to spread the water somewhat over the top of the hat, and is formed with a shell, *b*, bottom *c*, holes *e*, and guard *d* to prevent splashing and wasting of the water. The shell is secured to a screw-bushing, *f*, by which it is held in an arched or curved bracket, *g*, the latter being bolted to one side of the lever E and supporting the distributor a few inches above the center of the hat-block's upper surface. A lever gate-valve, *v*, is screwed to the upper end of the bushing *f*, and is connected by a nozzle, *h*, to a flexible hose, *i*, connecting with a suitable water-supply. A handle, *j*, enables the operator to open or close the valve instantly.

The operation of the device, thus arranged, is as follows: The hat is placed upon the hat-block and the band-former brought down upon it by its carrying-lever E, which also brings the distributor into its desired relation to the hat upon the block. In Fig. 1 the lever E, with all its attachments, is shown elevated a little above the hat-block to show the latter more

plainly; but in practice the lower edge of the former F extends below the tops of the brim-stretchers B. The hat being stretched while hot, the operator, as soon as the stretching is completed, opens the valve *v* by the handle *j*, and cools the hat in less than half the time required by hand. When the hat is cooled the lever E is raised, and the hat removed to repeat the same operation.

10 With this apparatus a gross of hats can be blocked in one hour, the entire time usually consumed by the operator in dipping several ladles of water being saved, and the water applied being much more efficacious, because distributed so close to the entire surface of the hat, which is secured by choosing the top for the point of application, and thus causing the water to flow successively over each part of the hat.

20 While the arrangement described is the most convenient for the application of the water at the proper time and in the desired amount, the flow can, if desired, be made dependent upon the movement of the lever E, and the operator be thus relieved from manipulating the valve *v*. This arrangement can be secured by substituting a plug-cock with a lever-handle for the gate shown in the drawings, and connecting the handle by a suitable rod to a point near the fulcrum D. The valve could thus be shut off automatically by the raising of the lever, and opened when the former is brought down upon the hat. This arrangement is quite suitable, except when hot water is first applied to the hat, as in blocking certain kinds of goods, in which case the hand-moved valve is preferable, as delaying the application of the cold water until the proper time. For such goods I substitute a T-piece, as shown at *t* in Fig. 4, for the valve upon the top of the distributor, and connect two valves by nipples *n* to the T, and to the hot and cold water supplies, so that the operator can use either at pleasure during the blocking operation.

45 The distributor is shown supplied with a considerable number of holes, *e*, and with two depending rings of sheet metal, *d*, below the holes to prevent the divergence of the water issuing from the holes. These features are mere conveniences, and by no means necessary to the successful operation of my invention, as

the water operates in the same manner upon the hat whatever the form of the delivery-pipe. Neither do I limit myself to the precise construction of the mounting for the cock and delivery-pipe, as it may be otherwise supported over the hat-block so as to be moved out of the way when taking out the hat. Thus the bracket *g* may be made with a spindle-like shank and fitted into a socket formed in the side of the frame A, so as to be turned over the center of the hat-block after the lever E is depressed each time a hat is blocked. The flexible hose *i* would permit such a lateral adjustment of the water-fixtures as readily as the vertical movement required by the lever E. In place of flexible hose, jointed metallic pipes may be substituted, as their construction is well known.

Having thus described my invention, I have shown that the essential feature of it is the combination, with the hat-block, of a cock and pipe for supplying cold water to the top of the hat, and means for removing the said supply-pipe from its proximity to the hat-block when removing the hat.

I therefore claim my invention as follows:

1. The combination, with the hat-block of a blocking-machine, of a cock and pipe arranged to discharge water on the top of the hat, and means, substantially as described, for moving the water-pipe away from the hat-block to remove the hat, as and for the purpose set forth.

2. The combination, with the lever E and band-former F, arranged and operated as described, of a water-pipe and stop-valve arranged to discharge water on the hat, substantially as and for the purpose set forth.

3. The combination, with a hat-blocking machine, and a water-pipe movably arranged to discharge water on the hat, of a flexible pipe connecting the said water-pipe movably with a water-supply, as and for the purpose set forth.

4. The distributor for supplying water to the hat-block, formed with holes *e* and depending guard-ring *d*, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HENRY C. HAULENBECK.

Witnesses:

CHAS. C. HERRICK,
MABEL HERRICK.