

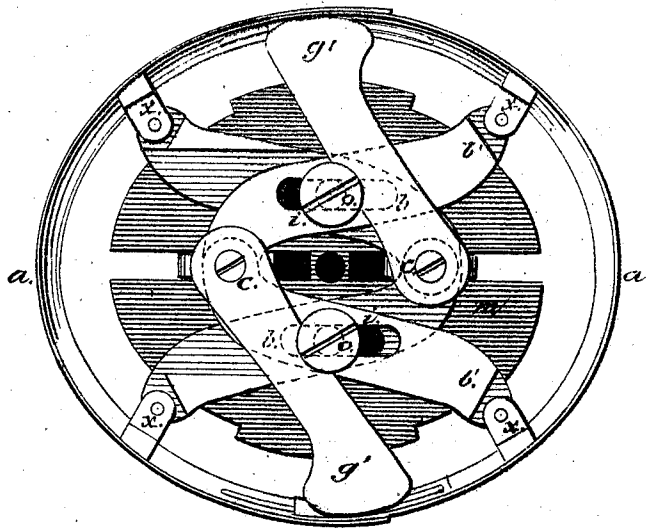
WILLIAM C. GRISWOLD.

Improvement in Adjustable Crown Blocks for Hat Blocking Machines.

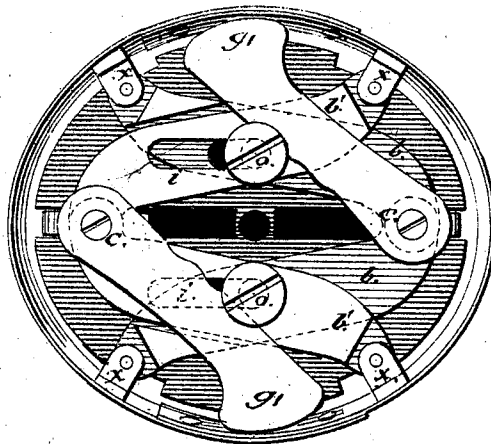
No. 120,739.

Patented Nov. 7, 1871.

*Fig. 1.*



*Fig. 2.*



*Witnesses.*

*R. Davis Woodworth*  
*J. Bloomfield Osborn*

*Inventor.*

*Wm C. Griswold*

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Fig. 3.

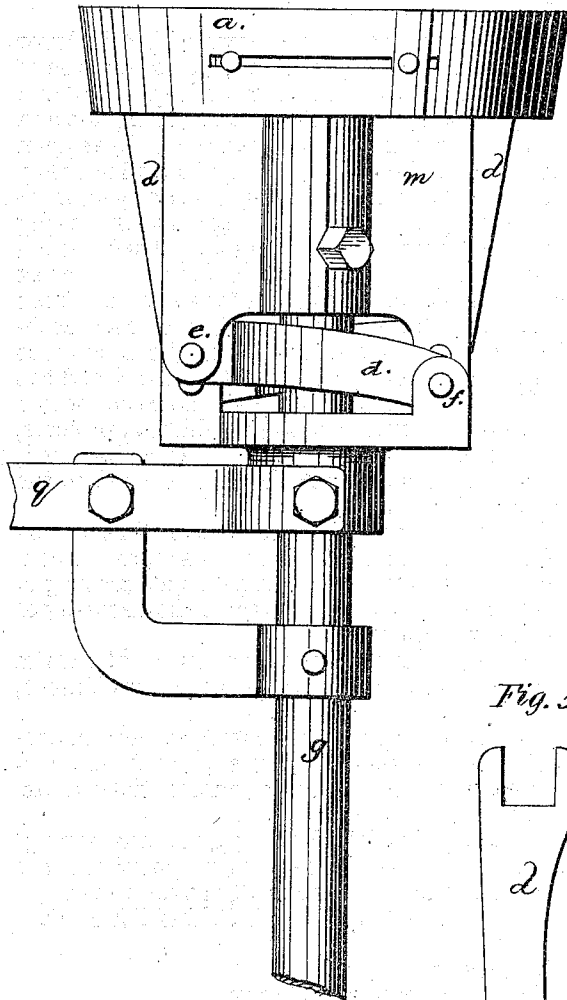


Fig. 4.

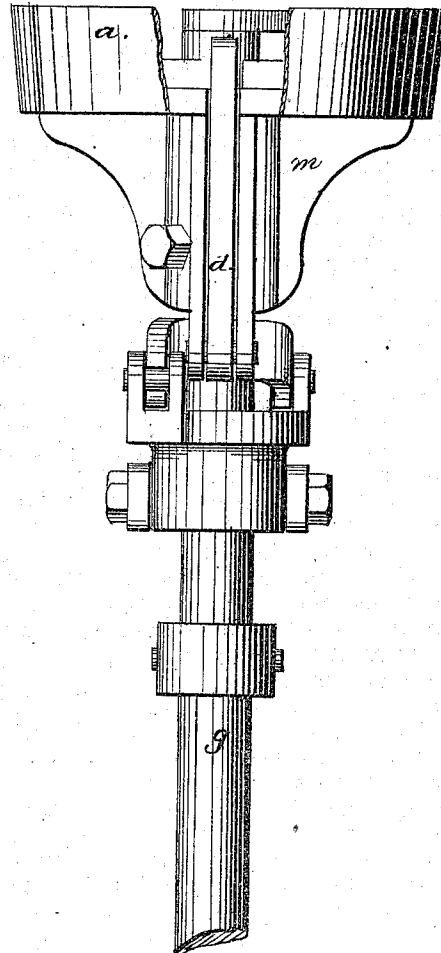
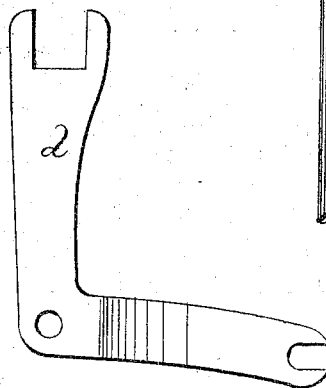


Fig. 5.



Witnesses.

R. Davis Woodworth  
J. Bloomfield Osborn

Inventor.

W. C. Griswold

# UNITED STATES PATENT OFFICE.

WILLIAM C. GRISWOLD, OF NEWARK, NEW JERSEY.

## IMPROVEMENT IN ADJUSTABLE CROWN-BLOCKS FOR HAT-BLOCKING MACHINES.

Specification forming part of Letters Patent No. 120,739, dated November 7, 1871.

*To all whom it may concern:*

Be it known that I, WILLIAM C. GRISWOLD, of the city of Newark, county of Essex, and State of New Jersey, have invented a new and useful Improvement in Adjustable Crown-Blocks for Hat-Blocking Machines, of which the following is a specification:

My invention relates to an expanding crown-block adjustable to the various sizes and depths of hats. It consists in an adjustable ring expanded and contracted by a system of slides and levers, as is more fully hereinafter described.

In the accompanying drawing, Figure 1 is a top view, showing the block expanded; Fig. 2, a similar view, showing the block contracted; Fig. 3, a perspective side view, showing the expanding-levers; Fig. 4, a side view, and Fig. 5 a detail view of one of the levers.

The adjustable ring *a a* is made of suitable metal in two segments, one of which overlaps the other, each part being furnished with slots and studs, as shown in the drawing, so that the ring may be expanded and contracted to change its size, and at the same time its parts be held rigidly together at the point where they overlap. To the interior of each segment of the ring sliding arms *b b b'* are hinged, the connection being to suitable projections or lugs *xx* fixed thereon. Their opposite ends are united by a pin, forming a hinge-joint, as at *c c*. One set of these sliding arms overlaps the other, and both are guided upon studs *o o*, which pass through the elongated slots *i i* as they are moved to and from the center, to expand or contract the ring, by the elbow-levers *d d*, whose upper ends are forked to grasp the slides at their junction *c c*. The operating-levers are pivoted at their bend *e* to lugs attached to the base of the machine, and hinged at *f* to the projecting arms of a sleeve sliding on

the shaft *g*, and raised and lowered by the lever *q*. Curved arms *g' g'* are pivoted to the base of the sliding arms *b b'*, and are carried forward and backward with them as they move to expand and contract the ring. Their outer ends bear upon the sides of the oval ring, against which they are forced by their cam edges bearing against the fixed studs *o o*. As the segments of the ring are forced apart by the slides *b b'*, it will be observed that the arms *g' g'* are moved in concert therewith against the sides of the oval, and thus preserve its form as its size is increased or diminished. The main frame *m* of the machine is recessed to receive the elbow-levers *d d*, and has a flat table, upon which the slides are supported and move. From its bottom a shaft, *g*, projects, to the end of which a simple lever is attached, by which the block is raised and lowered in the process of blocking.

I have shown and described the slides *b b'* as hinged to the ring and at their rear ends. I contemplate using a **T** or **U**-shaped slide moving in right lines, which will overcome the necessity of hinge connections.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A crown-block for blocking-machines, consisting of a segmental ring expanded and contracted by slides and levers, substantially as described.

2. In combination therewith, the cam-arms *g'* for preserving the proper relative position of the sides of the oval, substantially as described.

WILLIAM C. GRISWOLD.

Witnesses:

J. BLOOMFIELD OSBORN,  
MUNSON G. DOREMUS.

(76)