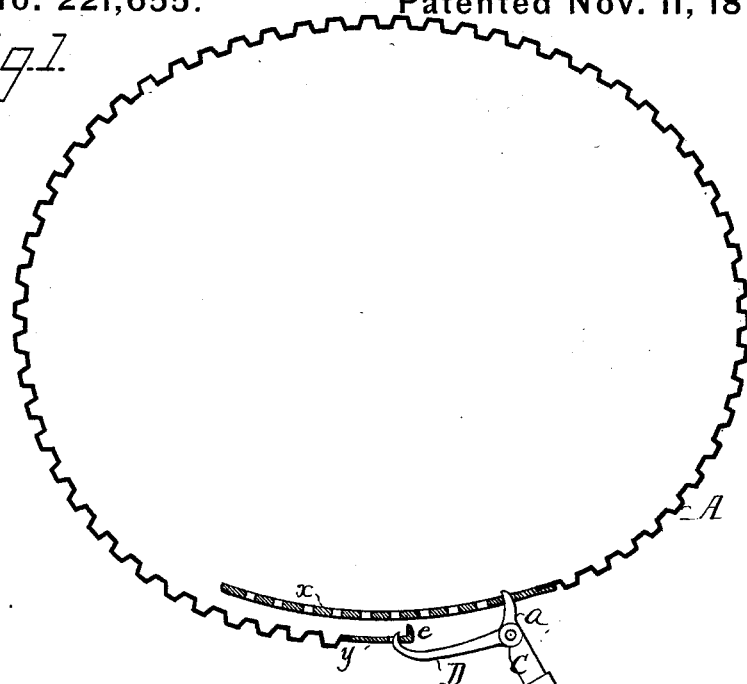


H. A. HOUSE & D. WHEELER.  
Band-Fastener for Use in the Manufacture of Felt-Hats.

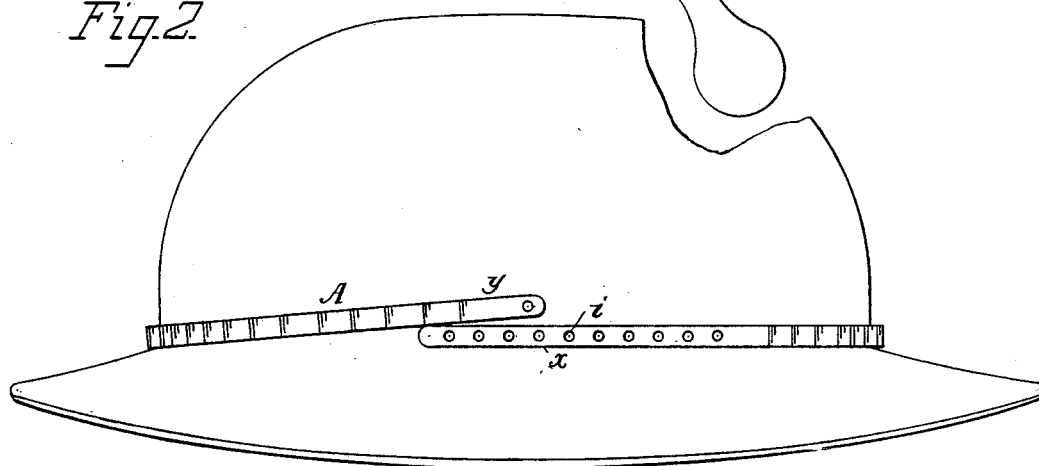
No. 221,655.

Patented Nov. 11, 1879.

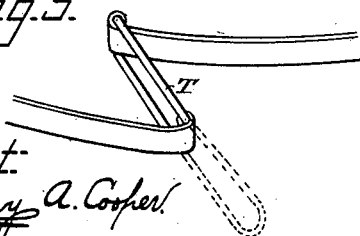
*Fig. 1.*



*Fig. 2.*

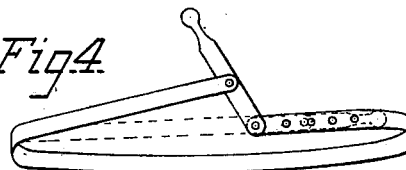


*Fig. 3.*



Attest:  
Courtney A. Cooper.  
William Paston.

*Fig. 4.*



Harry A. House  
Dwight Wheeler  
By their attorney  
Charles E. Foster

# UNITED STATES PATENT OFFICE.

HENRY A. HOUSE AND DWIGHT WHEELER, OF BRIDGEPORT, CONNECTICUT.

## IMPROVEMENT IN BAND-FASTENERS FOR USE IN THE MANUFACTURE OF FELT HATS.

Specification forming part of Letters Patent No. **221,655**, dated November 11, 1879; application filed October 9, 1879.

*To all whom it may concern:*

Be it known that we, HENRY A. HOUSE and DWIGHT WHEELER, of Bridgeport, Fairfield county, State of Connecticut, have invented an Improvement in Band-Fasteners for use in the Manufacture of Felt Hats, of which the following is a specification.

Our invention relates to the manufacture of felt hats, and specially to that part of the process in which the hat is fastened to the block during the finishing operations; and our invention consists in the mode of securing the hats to the blocks, so as to avoid the usual cementing operations, and in appliances constructed as hereinafter set forth.

In the drawings forming part of this specification, Figure 1 is a plan view, showing the improved appliances used in our mode of manufacture; Fig. 2, a side view, showing the hat and band fastening; and Figs. 3 and 4, modifications of the band-fastening.

In the manufacture of felt hats it is customary when the hat has been blocked to coat the crown-block near the edge with shellac, and then force it into the hat, which is thus cemented to the block, so as to be securely retained upon the same during the "luring" or polishing operations.

After the hat is finished a thin blade is passed between the hat-body and the block to detach the former. In this operation many hats are ruined, as the bodies are tightly cemented, the blades sharp, and the material is frequently torn or cut.

In the finer grades of ladies' hats the bodies are sometimes tacked to the blocks or are tied with cords. Both these methods are objectionable, as the tacks injure the hats and interfere with the finishing operations, while the cords do not afford a secure fastening.

We obviate these objections by securing the hats to the blocks by means of strong, narrow, elastic bands A, which may be made of spiral wire, elastic links, or otherwise suitably constructed, but preferably consist of corrugated strips of steel, as shown in the drawings.

The band is drawn tightly around the hat close to the brim, and by its contraction secures the body to the block without injury to either, and without interfering with the finishing operations.

The band may be continuous, and any suitable means may be adopted for expanding it, placing it in position, and then allowing it to contract; or the band may be provided with

catches for connecting the ends after lapping it around the hat. Thus one end, *x*, may have perforations *i*, or may be provided with a series of teeth or shoulders in or upon which to catch a tooth, *e*, at the opposite end, *y*, after the band is stretched round the hat.

A tightening device for stretching the band consists of a lever, C, having a sharp or hooked end, *a*, adapted to the teeth or notches *i*, and provided with a pivoted hooked arm, D, adapted to catch upon a shoulder or in a recess of the end *x* of the band.

By catching upon both ends of the band and turning the lever in the direction of the arrow, Fig. 1, the band is drawn tightly round the hat, while the end *x* is brought gradually closer to the end *y* until the tooth *e* enters one of the holes *i*.

In some instances the tightening device may constitute part of the band. For instance, it may be a link, T, pivoted to both ends, one of which may be closed down upon the other, as shown in Fig. 3, or the link may be elongated to form a lever pivoted at both ends, as shown in Fig. 4.

We claim—

1. The mode described of securing felt hats to the blocks during the finishing operations by clamping the bodies adjacent to the brims, substantially as set forth.

2. A device for securing hats on blocks, consisting of an elastic band provided with appliances, substantially as set forth, for tightening it upon the hat.

3. The elastic metallic band A, consisting of a corrugated strip combined with appliances for contracting it, substantially as specified.

4. The elastic metallic band provided with shoulders or openings *i* at one end, and with a tooth, *e*, at the other, substantially as set forth.

5. The lever C, with its pivoted hook D, constructed and adapted to the band A for stretching and securing the same, substantially as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

HENRY A. HOUSE,  
DWIGHT WHEELER.

Witnesses:

ALFRED B. BEERS,  
DAVID B. LOCKWOOD.