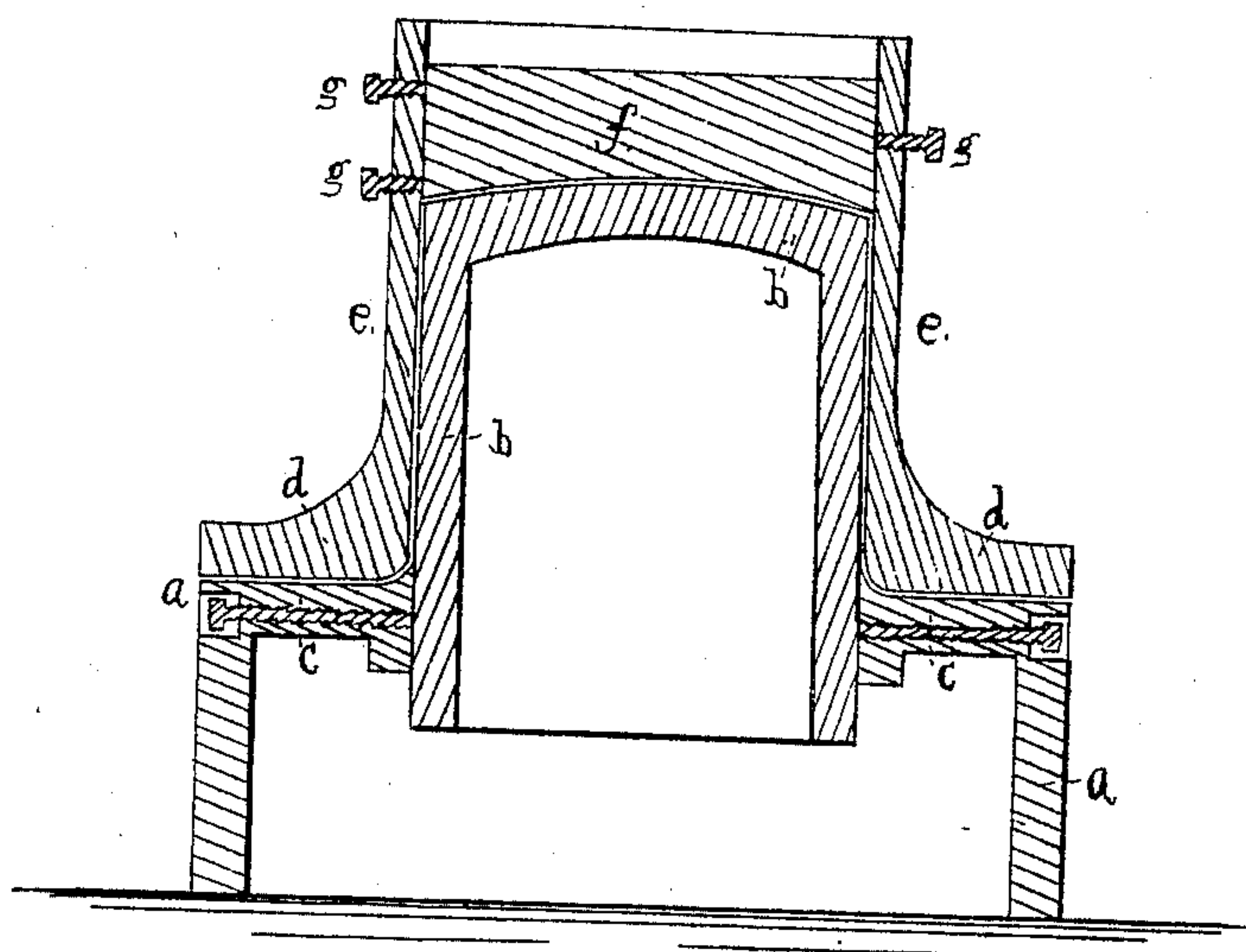


*Doubleday & Lyon.*  
*Pressing Hats.*

*No. 588,*  
*31,592.*

*Patented Mar. 5, 1861.*



*Witnesses*

*Wm E Doubleday*

*S. H. Lyon*

*Lemuel M. Serrell*

*Chas H Smith*

# UNITED STATES PATENT OFFICE.

WM. E. DOUBLEDAY AND SAML. H. LYON, OF BROOKLYN, NEW YORK.

## DIE FOR PRESSING HATS.

Specification of Letters Patent No. 31,592, dated March 5, 1861.

*To all whom it may concern:*

Be it known that we, WILLIAM E. DOUBLEDAY and SAMUEL H. LYON, of Brooklyn, in the county of Kings and State of New York, have invented and made a certain new and useful Improvement in Dies for Pressing Hats; and we do hereby declare that the following is a full, clear, and exact description of our said invention, reference  
10 being had to the annexed drawing, making part of this specification, wherein we have represented a vertical section of our said improved dies.

In the pressing of hats out of cloth or  
15 other material, the height of the crown is often varied, and heretofore it was necessary not only to have dies adapted to the varying circumference of the hat but also to the different heights, thus a large number of  
20 expensive dies were required.

The nature of our said invention consists in fitting the inner die so as to be raised or lowered in the brim die, and also in fitting the tip die so as to be adjustable accordingly in the outer die; thereby we are enabled to construct dies adapted to the varying circumference, and with them press hats of any size or height of crown.

The size and shape of the dies may be  
30 varied to press hats or bloomers or hat bodies and may be made of a circular or oval form as desired.

*a*, is the brim die shaped as required, *b*, is the crown die made with parallel or nearly  
35 parallel sides, and passing into and through an opening of corresponding size and shape in the brim die *a*; *c*, *c*, are screws or equivalent mechanism for holding the crown die *b*, at any point to which it may be adjusted  
40 in the die *a*; *e*, is the exterior die with a

flange *d*, adapted to press the hat brim upon the block *a*, and there is sufficient space between the dies *b* and *e*, for the sides of the hat crown; *f* is the tip die set within the die *e*, and retained by the screws *g*, *g*, or  
45 suitable mechanism at the proper point so as to press the tip of the hat between its under surface and the upper end of the die *b*; the respective dies may be heated by heaters or any convenient device. 50

It will now be seen that the crown can be made of any desired height by raising or lowering the dies *b*, and *f*, and securing them in place as specified.

By having the dies *b*, and *f*, separate from  
55 the dies *a*, and *e*, the construction and finishing is greatly facilitated.

If the die *f* was not applied in any particular case, the action of the die *b*, would be the same except so far as not pressing  
60 the tip itself.

The dies may be brought to press upon the hat by any suitable mechanism.

What we claim and desire to secure by Letters Patent is— 65

1. The crown die *b*, fitted to be raised or lowered in the brim die *a*, for the purposes and as set forth.

2. In combination with the adjustable crown die *b*, the adjustable tip die *f*, in the  
70 die *e*, for the purposes and as specified.

In witness whereof we have hereunto set our signatures this twentieth day of December 1860.

WM. E. DOUBLEDAY.  
S. H. LYON.

Witnesses:

LEMUEL W. SERRELL,  
CHAS. H. SMITH.