

F. THUN.  
BRAIDED HAT.  
APPLICATION FILED OCT. 9, 1907.

967,462.

Patented Aug. 16, 1910.

Fig. 1.

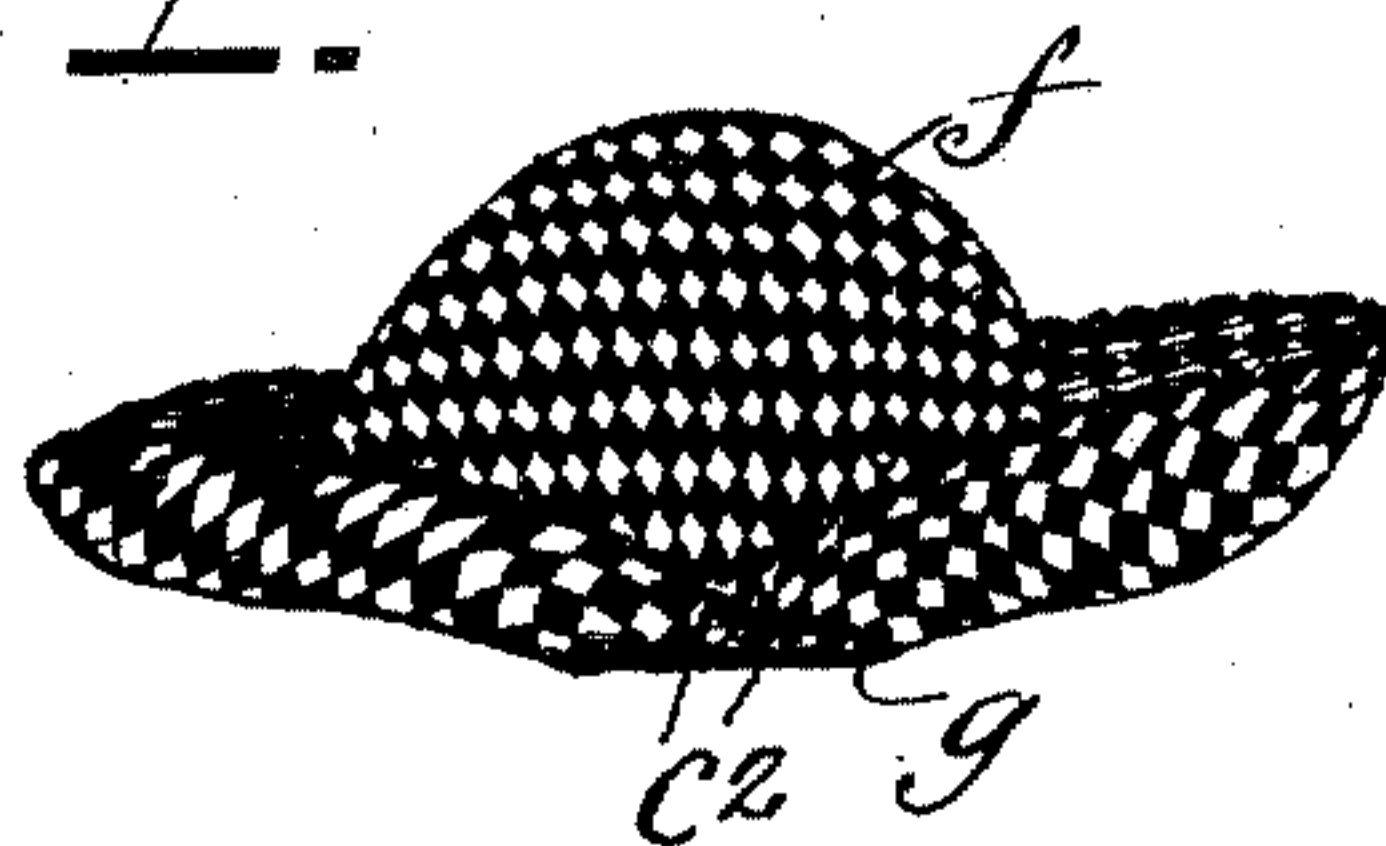


Fig. 2.

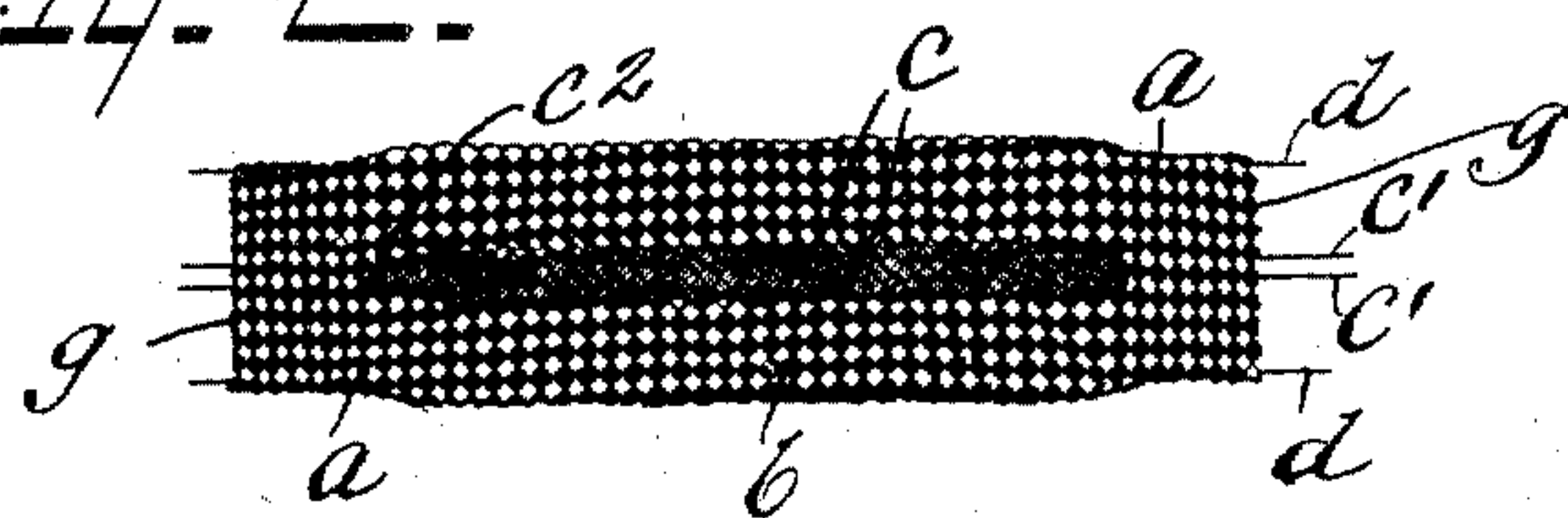
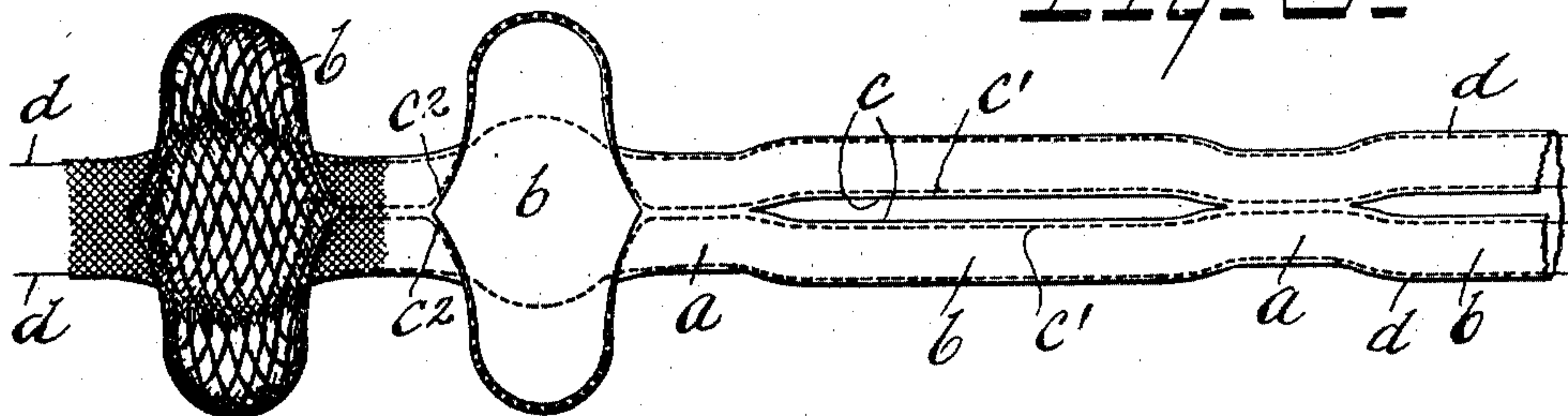


Fig. 3.



Ferdinand Thun,

Inventor

Witnesses  
H. C. Keffler  
D. M. Stewart

by *[Signature]*

Attorneys



# UNITED STATES PATENT OFFICE.

FERDINAND THUN, OF READING, PENNSYLVANIA.

## BRAIDED HAT.

967,462.

Specification of Letters Patent.

Patented Aug. 16, 1910.

Application filed October 9, 1907. Serial No. 396,587.

To all whom it may concern:

Be it known that I, FERDINAND THUN, a citizen of the United States, and a resident of the city of Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Braided Hats, of which the following is a specification.

My invention relates particularly to the manufacture of hats, and is especially applicable to the economical production and improved construction of ladies' hats having the quality of permitting ready modifications of shape and ornamentation in accordance with individual taste.

The invention provides for employing as hat-blanks, cut-off lengths of continuously formed braids which are made of sufficient width to singly form the hat; the middle portion of each piece of wide braid thus employed as a hat-blank being suitably shaped to form the hat crown, and the side edges thereof to form the hat rim, as hereafter fully described.

Figure 1 shows a simple form of hat made in accordance with my invention. Fig. 2 shows a particular form of braided blank which is preferably employed in carrying out my invention; and Fig. 3 indicates a continuous braid from which said blanks are adapted to be cut, portions thereof being shown partially formed to desired shape before being cut off.

The making of braids of various kinds in indefinite lengths is well known as a simple and automatic operation; as is also the fact that the interlacing of the threads or strands in braiding is such as to enable the fabric to be readily shaped by varying the crossing angles of the strands. Hats have heretofore been made of suitably braided material by sewing together narrow braid at the edges thereof so as to build up the required size and shape of hat.

My invention provides for using a single width of braided fabric, cut to proper length from a continuously braided strip, to form an entire hat; the braided fabric being of such width as to form when shaped the full cross-sectional line of the hat, crown and brim, and the side edges of the cut-off braid section being arranged to serve as the hat rim, the middle portion thereof as the crown, and the intermediate portion as the brim.

The drawing shows, in Fig. 3, a particu-

lar form of braid which I preferably employ in carrying out my invention. To the right of said figure the braid is shown as it leaves the braiding machine, while to the left it is shown with the flat-braided portions partially shaped by contracting them upon the pull-string warps. *b b b* are flat-braided portions, having their separated edges *c c* lying normally approximately parallel and running at each end into connected tubular-braided portions *a a a*; the latter are preferably tighter braided than the portions *b b b*. *d d* are continuous warp threads, adapted to serve as pulling strings, being preferably spaced apart the full width of the flattened tubular portions and lying intermediate of the full width of the flat-braided portions *b b b* so as to allow sufficient width of braid between them to form the hat crown. *c' c'* are reinforcing warps for the edges *c c*, they being located close together in the tubular braided portions *a a a* as shown. These warps *c'* may be of wire or like bendable material adapted to yieldingly retain the edge of the fabric in the shape to which it is formed by the operator.

The cut-off braid section (Fig. 2) which serves as a hat blank, is readily formed into a hat shape by bulging the middle of its flat-braided portions *b* as indicated to the left of Fig. 3, so as to form the crown *f* (Fig. 1), and by spreading apart laterally the midway portions of the edges *c c* while holding the ends *c<sup>2</sup> c<sup>2</sup>* thereof together at opposite sides of the crown, so that said edges form the rim of the hat. The pull string warps *d d* greatly facilitate this shaping of the blank, though a head ring (not shown) is preferably provided as usual within the crown. The folded ends *g g* of the braid blank are fastened in any preferred manner so as to provide a neat and ornamental finish ordinarily at the sides of the hat with the midway portions of the edge *c c* at front and rear of the latter.

The simple form of hat indicated in Fig. 1 is merely suggestive of a great variety of ornamentally modified forms which may be easily produced with great economy of labor in accordance with my invention.

While the use of the specifically described flat braided sections or blanks having tubular braided ends, as shown, is decidedly preferable as facilitating and improving the formation of the finished article, the tubu-



larly braided ends are not essential to securing the main benefit of my invention as the blank may obviously be entirely flat braided as usual and yet be similarly shaped  
5 and finished.

What I claim is:—

1. A braided hat the crown of which is formed by the bulged central portion of a flat-braided section of braid having spaced-  
10 apart intermediate pull-string warps, the front and rear parts of the brim being formed by the side portions of said flat-braided section.

2. A braided hat the crown of which is formed by the bulged central portion of a flat-braided section of braid having spaced-  
15 apart intermediate pull-string warps, the front and rear parts of the brim being formed by the side portions of said flat-braided section, said side portions having their edges turned inward and being connected at the sides of the hat by the braid  
20 ends.

3. A braided hat the crown of which is formed by the bulged central portion of a flat-braided section of braid having spaced-  
25 apart intermediate pull-string warps, the front and rear parts of the brim being formed by the side portions of said flat-braided section, said side portions having their edges reinforced by additional warps and turned inward, and being connected at the sides of the hat by the braid ends.  
30

4. A hat formed from a piece of flat braided fabric having tubular-braided ends and spaced-apart intermediate pull-string warps, the middle of the flat-braided portion being bulged to form the hat crown and its sides bent to form the front and rear  
35 brims, and the tubular-braided ends serving to connect said front and rear brims.  
40

5. A hat formed from a piece of braided fabric having tubular-braided ends, spaced-apart intermediate pull-string warps, and  
45 additional warps for the flat-braided portion of the fabric, the middle of the flat-braided portion being bulged to form the hat crown and its sides bent to form the front and rear brims, and the tubular-braided ends serving  
50 to connect said front and rear brims.

6. A hat made from a piece of wide braid the middle portion of which is bulged to form the hat crown and the side edges of which are laterally bent to form the hat rim and held together at their ends on opposite  
55 sides of the crown.

7. A hat made from a piece of wide braid having spaced-apart intermediate pull-string warps, the middle portion thereof between said warps being bulged to form the  
60 hat crown and the side edges thereof being laterally curved to form the hat rim and having their ends held together on opposite sides of the crown.

8. A hat made from a piece of wide braid having reinforcing edge-warps, the middle portion thereof between said warps being bulged to form the hat crown and the side edges thereof being laterally curved to form the hat rim and having their ends held to-  
70 gether on opposite sides of the crown.

9. A hat made from a piece of wide braid having spaced-apart intermediate pull-string warps, and reinforcing edge-warps, the middle portion thereof between said warps being  
75 bulged to form the hat crown and the side edges thereof being laterally curved to form the hat rim and having their ends held together on opposite sides of the crown.

10. A hat made from a piece of flat-  
80 braided fabric having tubular braided ends, the middle of the flat braided portion being bulged to form the hat crown and the side edges thereof forming the hat rim.

11. A hat formed from a piece of flat  
85 braided fabric having relatively tightly braided tubular ends and spaced-apart intermediate pull-string warps, the middle of the flat-braided portion being bulged to form the hat crown and its sides bent to form the  
90 front and rear brims, and the tubular-braided ends serving to connect said front and rear brims.

In testimony whereof, I affix my signature, in the presence of two witnesses.

FERDINAND THUN.

Witnesses:

D. M. STEWART,  
W. G. STEWART.