

# E. Z. Webster, Hat Conformator.

No 85041.

Patented Dec 15 1868.

Fig 1.

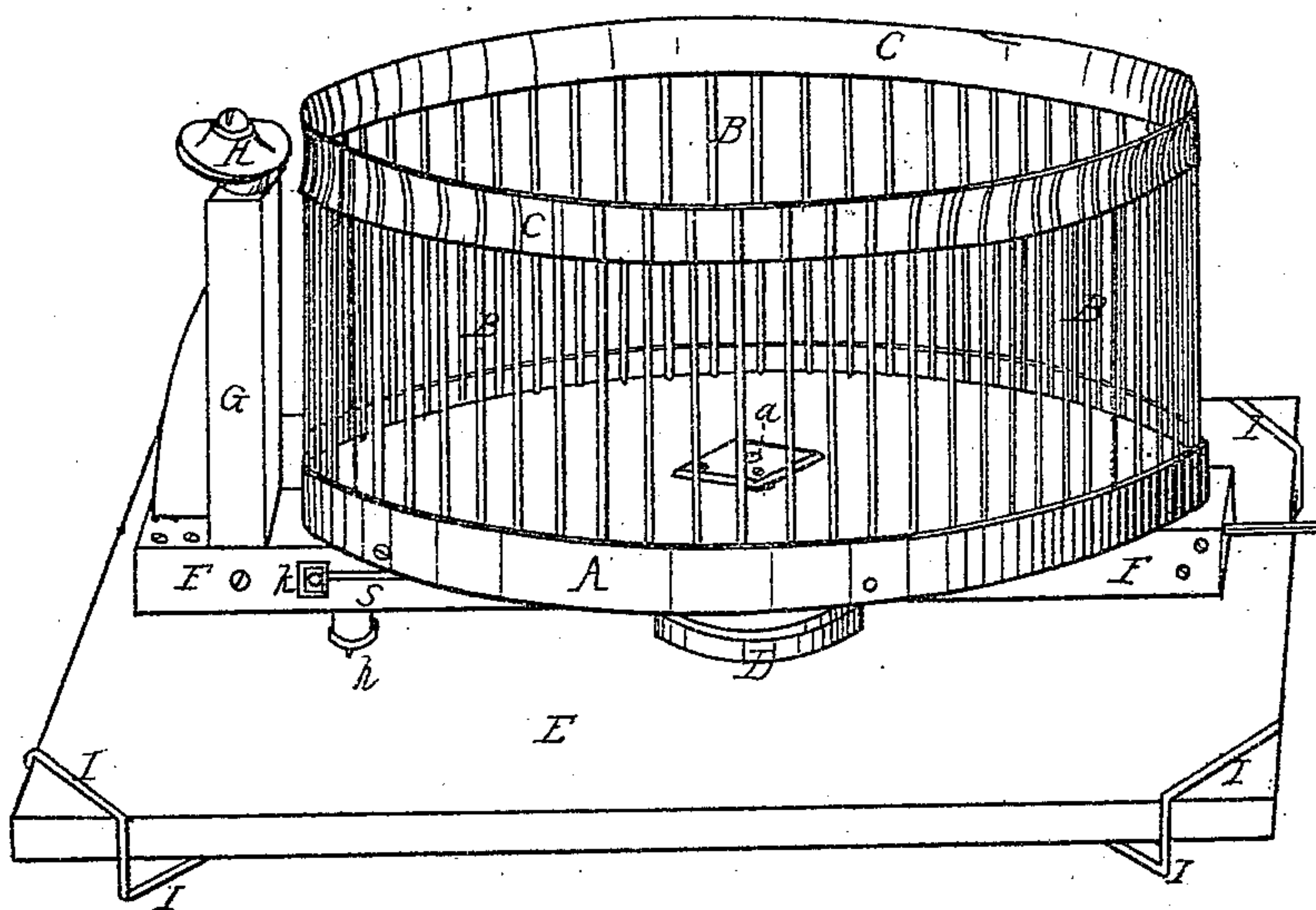


Fig 2.

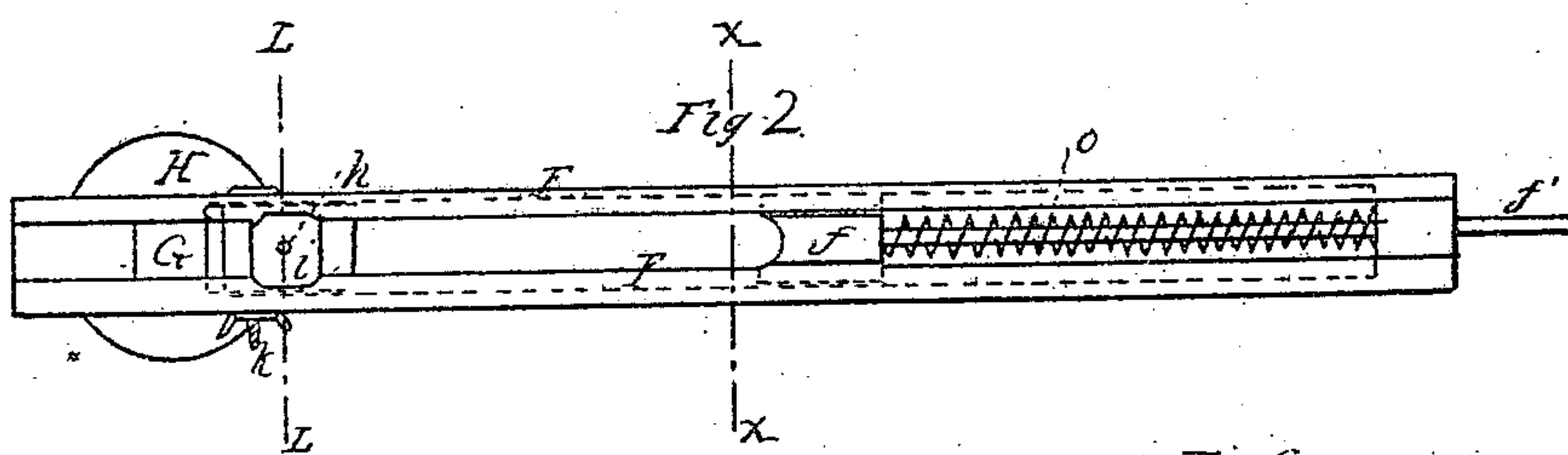


Fig 3.

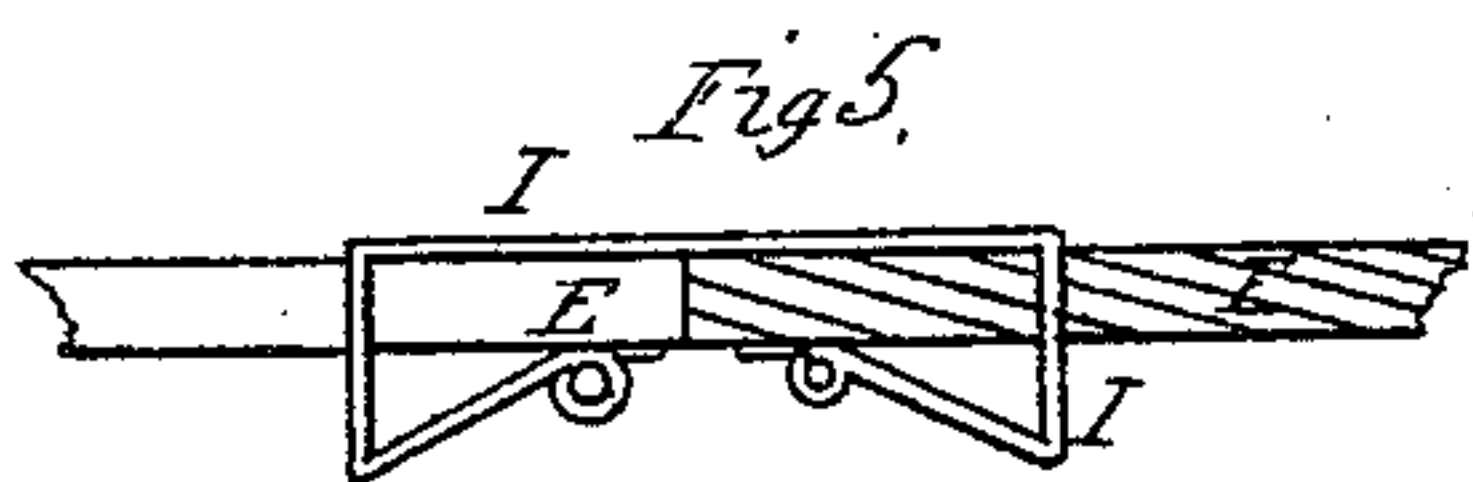


Fig 4.

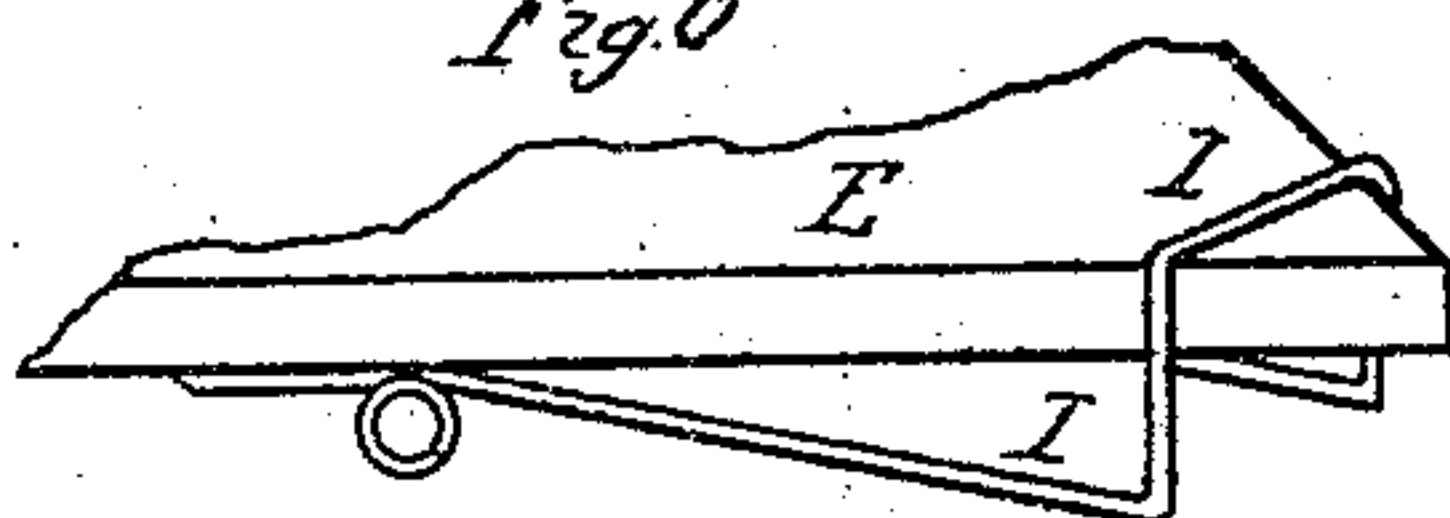


Fig 5.

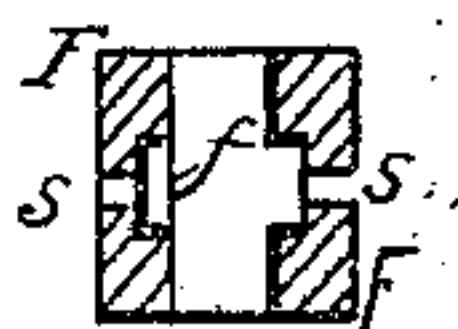


Fig 6.

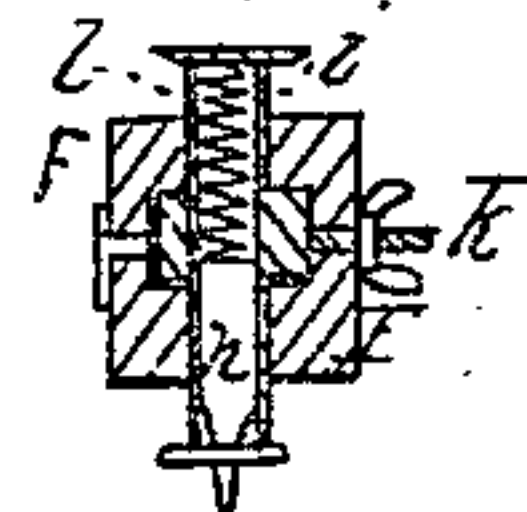
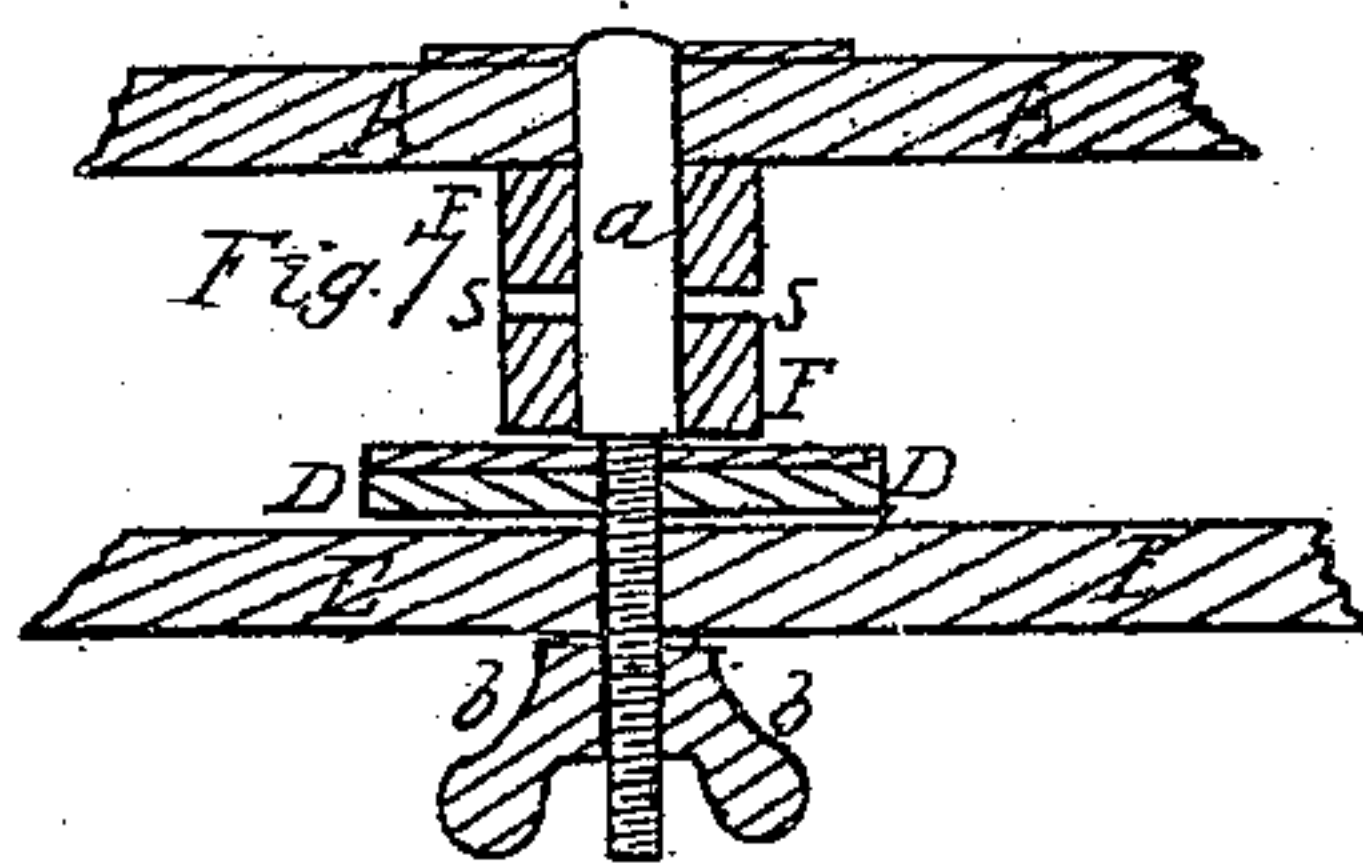


Fig 7.



Witnesses

C. H. Bishop  
C. W. Moore

Inventor:

E. Z. Webster  
by Rundle and Co.



# United States Patent Office.

E. Z. WEBSTER, OF NORWICH, CONNECTICUT.

Letters Patent No. 85,041, dated December 15, 1868.

## IMPROVEMENT IN HAT-CONFORMATORS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:—

Be it known that I, E. Z. WEBSTER, of Norwich, in the county of New London, and in the State of Connecticut, have invented an Improved Hat-Conformator; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view.

Figure 2 is a bottom view of the sliding bar for carrying the roller and pencil.

Figure 3 is a cross-section of fig. 2, upon the line *xx*.

Figure 4 is a cross-section of fig. 2, upon the line *yy*.

Figure 5 shows the spring for holding the paper upon the tablet.

Figure 6 is another view of the same.

Figure 7 shows the manner of securing together the tip and tablet by means of a stud.

Letters of like name and kind refer to like parts in each of the figures.

My invention relates to a class of devices known as hat-conformators, used for obtaining the size and shape of the head, for the purpose of fitting the stiff unyielding rims of hats thereto; and

It consists, principally, in the construction and arrangement of a number of flexible ribs, hinged or otherwise secured at one end of each to a suitable block or tip-disk, in size and shape corresponding to the head, and attached at the other end to an elastic band, in such a manner as to allow them to expand or contract, so as to conform to the size and shape of the head when placed thereon.

It also consists in the means used for transcribing upon paper the exact size and shape of the head, as is fully described below.

In the annexed drawings—

A represents an oval disk or tip, six by seven and one-half inches in diameter, and one-half inch thick, around the outer edge of which is hinged or otherwise secured one end of a number of flexible strips or ribs, of metal or other suitable material, B, about four inches long, the other ends of which are attached to a circular elastic band, C, the block A representing the top, and the ribs B and band C, the sides of a hat.

It will be readily seen that if this device is placed upon the head, the band and ribs will yield, so as to conform to its size and shape.

Attached to and extending upwards from the centre of the tip-disk A is a stud, *a*, one inch long and three-eighths of an inch in diameter, terminating in a screw one and one-fourth inch long and one-fourth of an inch in diameter.

A nut, D, one and one-fourth inch in diameter and one-fourth of an inch thick, is screwed firmly against the outer end of the stud, and upon said nut is placed a supporting-tablet, of wood or other light material, E, ten inches long, eight inches wide, and one-fourth

of an inch thick, against which it is held by a thumb-nut, *b*, upon the screw, which extends through the supporting-tablet.

F represents a slide, formed of a strip of wood, ten inches long and one inch square, with a slot, three-eighths of an inch wide, extending lengthwise through its centre, nearly to either end.

The sides of this slot are grooved, as shown in fig. 3, to admit and hold a sliding piece, *f*, conforming in shape to the sides and grooves of said slot.

Attached to one end of the sliding piece *f* is a rod, *f'*, which extends lengthwise through the slot, to its end, where it passes through a suitable hole in the end of the slide.

A spiral spring, *o*, is placed around the rod *f'*, which, being confined between the end of the slot and the sliding piece *f*, presses the latter towards the opposite end of said slot.

The slide F is placed between the top of the tip-disk A and nut D, with the stud *a* passing through the slot, said stud forming an axial pivot, around which the slide revolves.

The sliding piece *f* resting against the stud *a*, and the spiral spring *o* pressing against said sliding piece and the end of the slot, the opposite end of the slide is held towards the centre while allowing it to be drawn outwards.

G represents an arm, secured near the end of the slide F, (from whence it projects downwards at a right angle,) having pivoted upon its lower end a roller, H, the axis of which is parallel to that of the tip-disk A.

It will be seen that if the device is placed upon the head, and the slide revolved around the stud, the spiral spring will cause the roller H to press upon the band C, and follow its shape, moving the end of the slide F in or out, so that if suitable means were provided by which a line could be traced by said slide, an exact diagram of the shape of the head would be obtained.

To accomplish the above-named result, a pencil, *h*, is enclosed within a tube, *i*, and caused to press downwards, by means of a spiral spring, *z*, placed between its upper end and the end of the tube, an opening being provided in the lower end of said tube, of sufficient size only to allow the point of the pencil to project through the tube.

The tube *i* is of suitable size to pass through the slot in the slide F, and is provided with projections upon its sides that fit into the grooves in the sides of said slot.

A bolt, *k*, secured to one side of the tube *i*, passes through a horizontal slot, *s*, in the slide F, having a fixed nut upon one end, and a thumb-nut upon the other, by means of which the tube and pencil can be adjusted to any desired distance from the centre around which it revolves, causing it to trace a large or small diagram.

Sheets of paper are placed upon the under side of



the supporting-tablet E, where they are held in place by means of wire springs I, the construction and operation of which are sufficiently illustrated by figs. 5 and 6.

The operation of this device is easy, and readily understood.

The supporting-tablet E is removed, a sheet of paper placed upon its under side, and the tablet replaced. The band C is now adjusted upon the head until in the position that the hat is designed to occupy, and the slide F caused to revolve around the stud, carrying with it the pencil, which, by means of the roller H pressing lightly against the band C, is caused to record upon the paper an exact diagram of the shape of the head, which diagram may be the exact size of the head, or larger or smaller, as is desired.

I desire it to be understood that I do not confine myself to the particular devices herein described for tracing the diagram, as other and various means for producing a like result will readily suggest themselves, but claim the right to employ any and all means, in combination with the tip-disk A, ribs B, elastic band C, and roller H, whereby a diagram of the size and shape of a head may be transcribed upon any suitable substance, for the purpose set forth.

The advantages possessed by this device over all others in use, intended for a like purpose, are that its parts are so few and its construction so simple, that it is not liable to get out of order, and can be furnished at a much lower rate, thus placing it within the reach of a greater number.

Having thus fully set forth the nature and merits of my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The flexible ribs B and elastic band C, hinged or

otherwise secured to a disk or tip, A, of suitable form, so that when placed upon the head, the band, with the ends of the ribs attached thereto, shall expand or contract, so as to conform to the size and shape of the head, substantially as and for the purpose set forth.

Also, in combination with the tip-disk A and supporting-tablet E, the stud *a*, which rigidly attaches said parts together, and forms an axis for the slide F, substantially as shown and described.

Also, the supporting-tablet E, made detachable from the spindle *a*, substantially as and for the purpose herein specified.

Also, in combination with the supporting-tablet E, the springs I, for holding the paper thereon, substantially as shown and described.

Also, the slide F, provided with a suitable tracing-point, in combination with the arm G, provided with a guide-finger or wheel resting upon the band C, by means of which, when pressed lightly against and caused to revolve around said band, a diagram of its contour is traced upon the surface of the tablet E, as and for the purpose specified.

Also, the sliding piece *f*, rod *f'*, and spiral spring *o*, in combination with the slide F, for the purpose herein specified.

Also, the tube *i*, bolt *k*, spring *l*, and slot *s*, in the slide F, by means of which the pencil may be adjusted to any desired distance from the stud *a*, and caused to press against the tablet E, substantially as herein shown and described.

In testimony that I claim the foregoing, I have hereunto set my hand, this 30th day of September, 1868.

E. Z. WEBSTER.

Witnesses:

L. HILLARD,  
SIDNEY L. GEER.