

(No Model.)

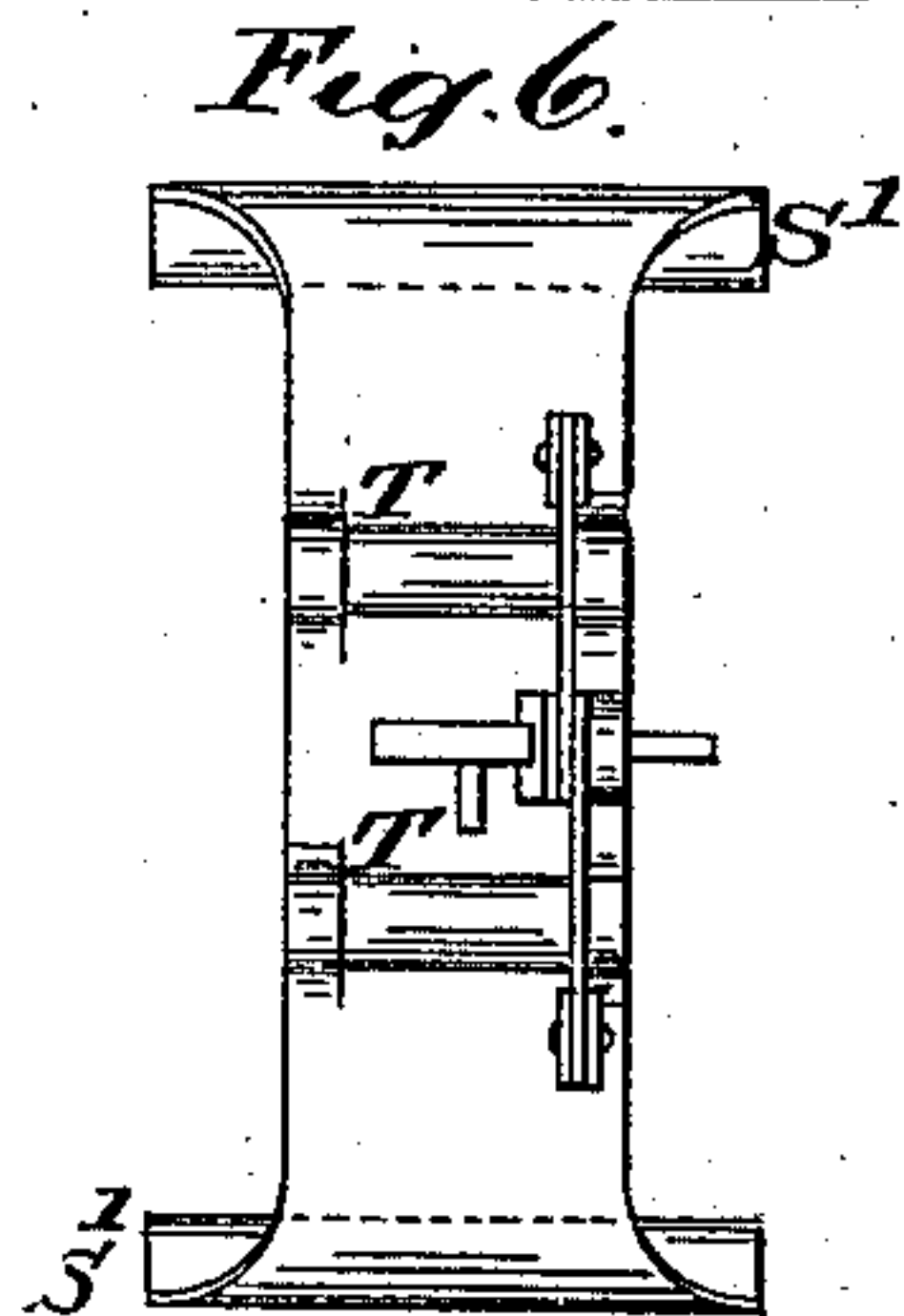
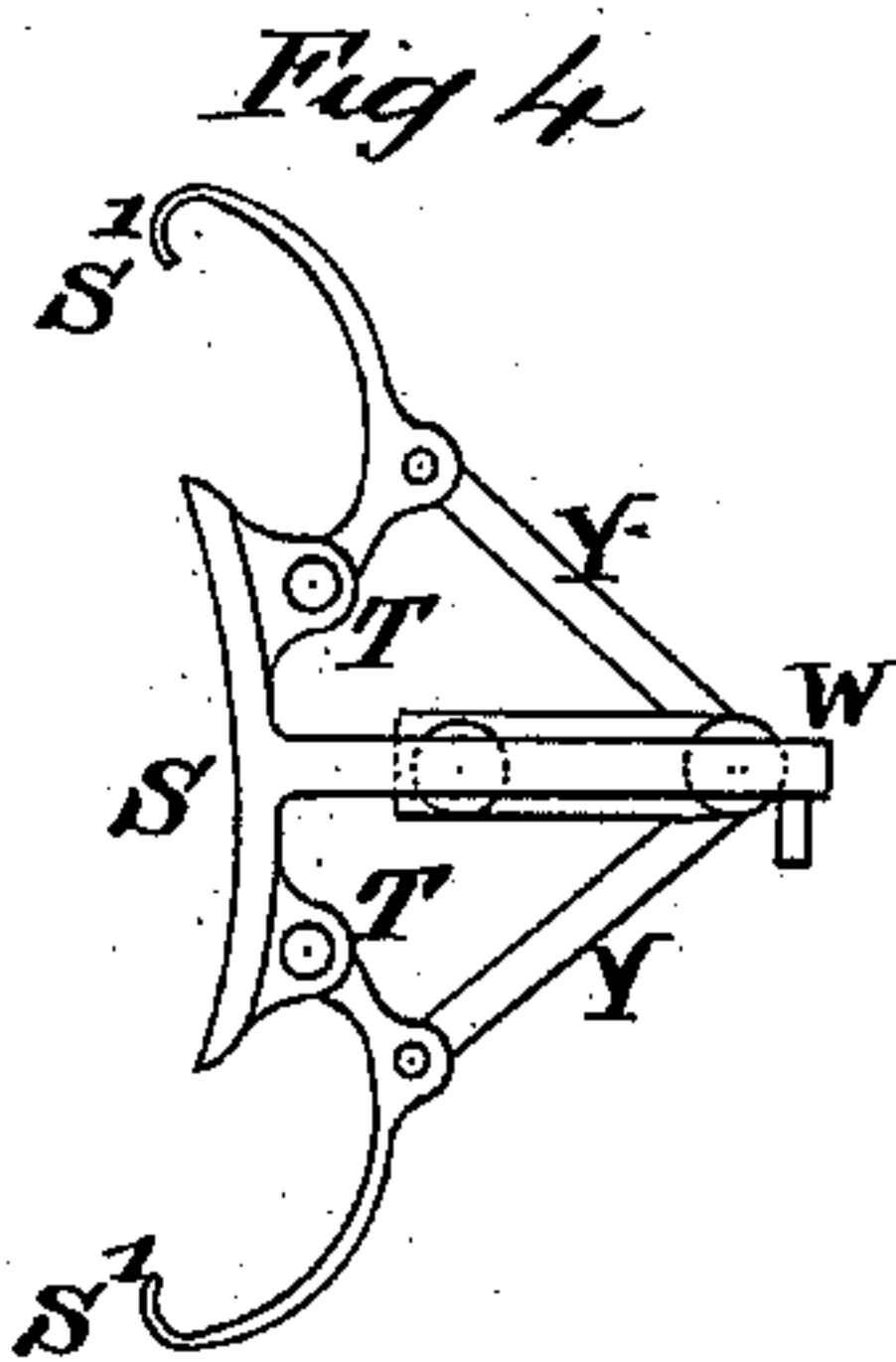
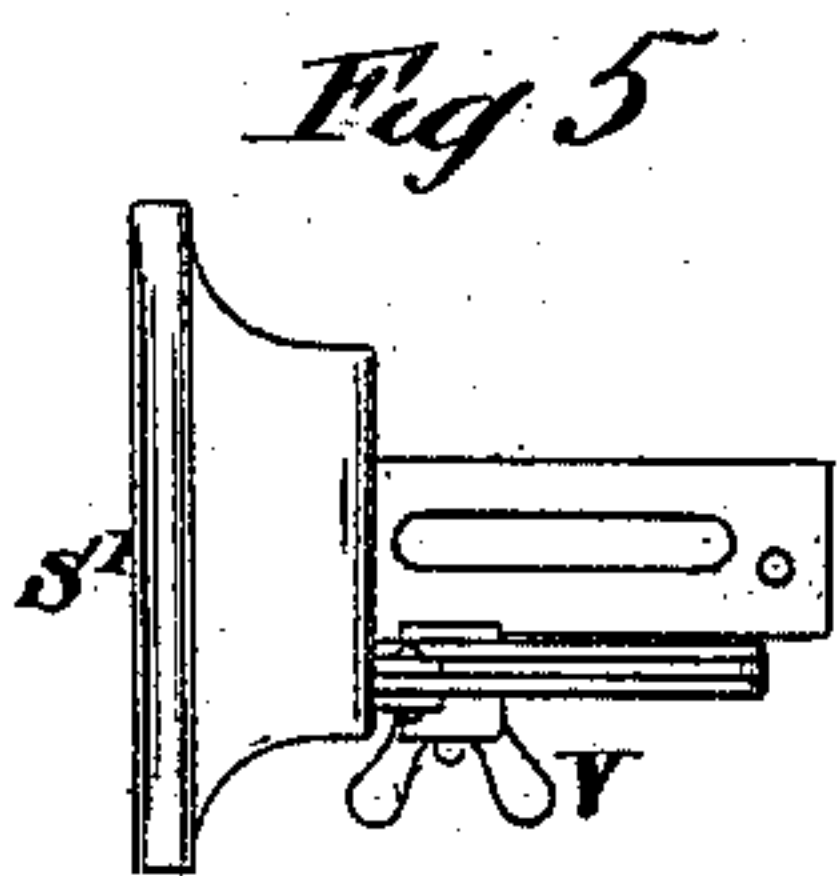
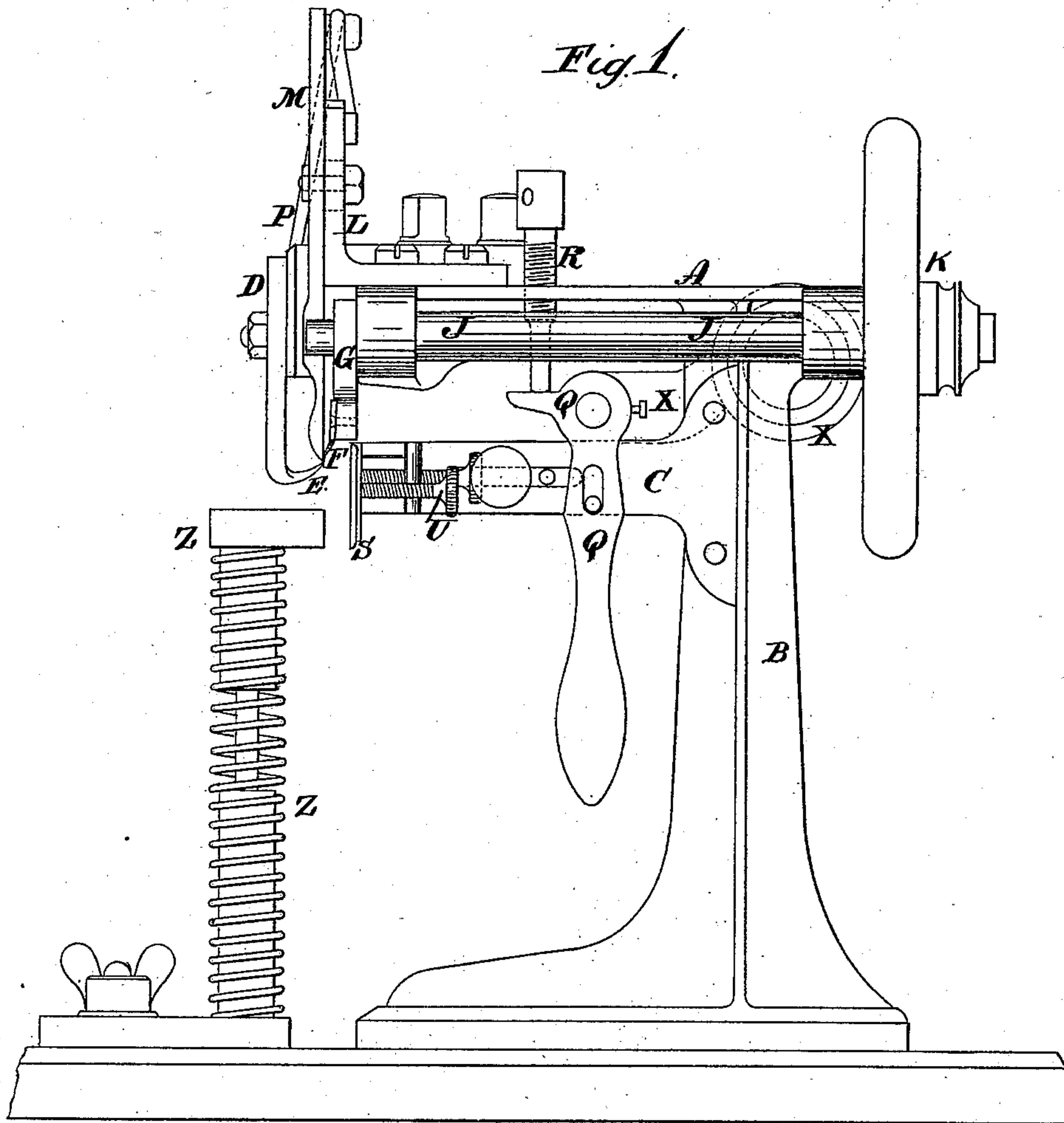
2 Sheets—Sheet 1.

L. F. MARSH & J. CREE.

APPARATUS FOR PARING THE BRIMS OF SILK AND FELT HATS, &c.

No. 294,246.

Patented Feb. 26, 1884.



Witnesses:

George W. Rea.
Charles S. Hyes.

Inventors:

Lewis F. Marsh.
and James Cree
By James L. Norris. Atty

(No Model.)

2 Sheets—Sheet 2.

L. F. MARSH & J. CREE.

APPARATUS FOR PARING THE BRIMS OF SILK AND FELT HATS, &c.

No. 294,246.

Patented Feb. 26, 1884.

Fig. 2.

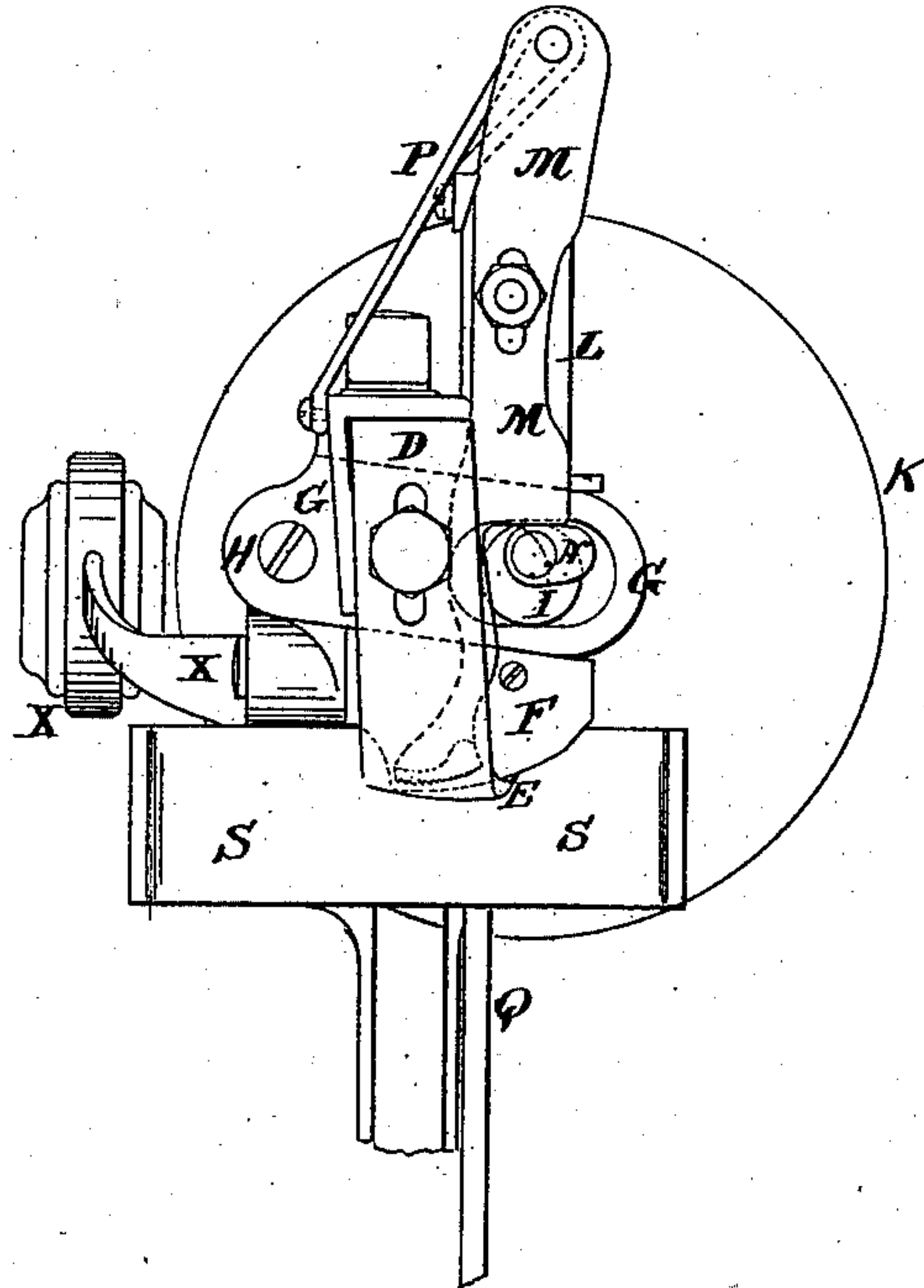
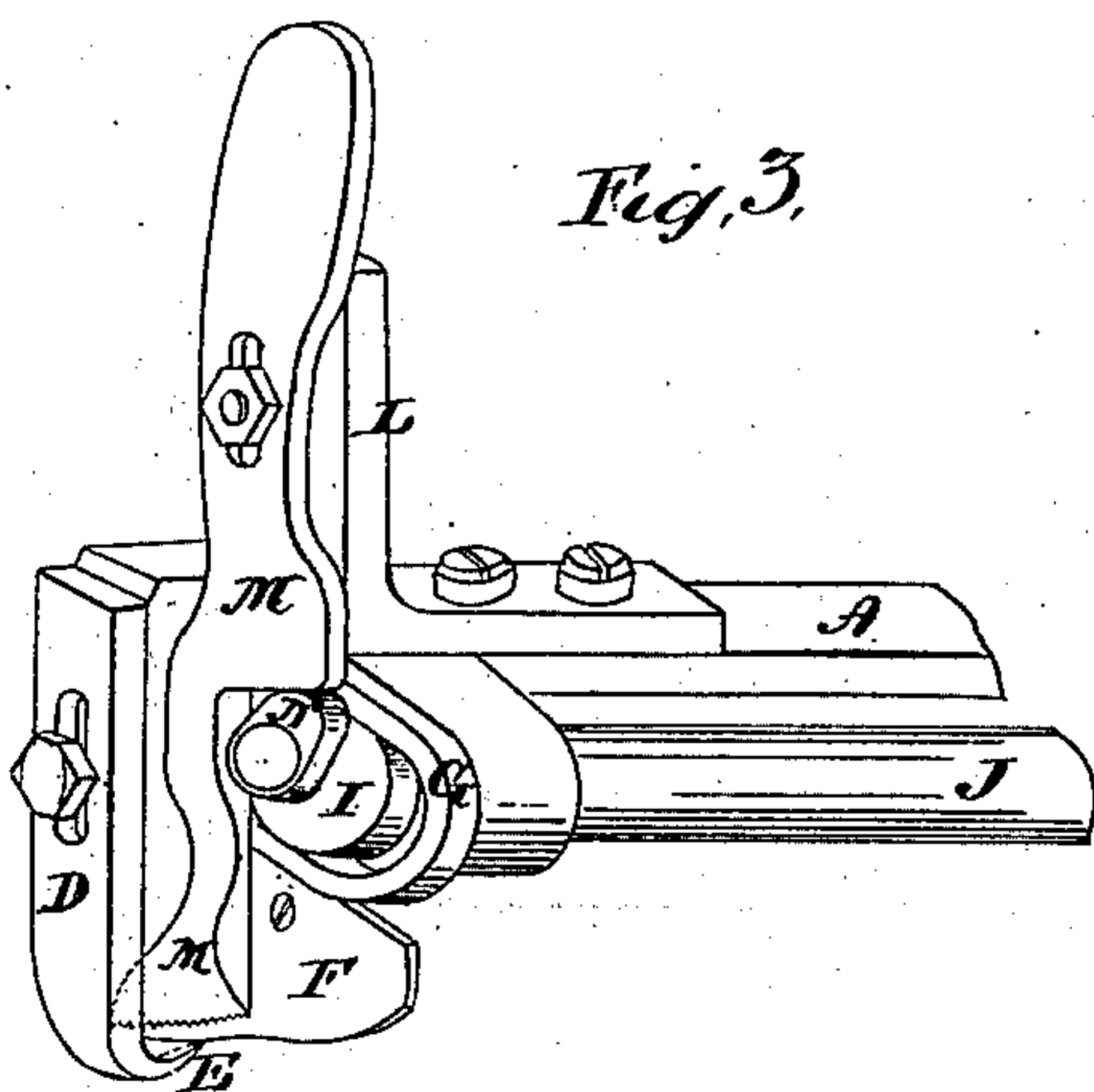


Fig. 3.



Witnesses:

George W. Rea.
Charles S. Hoyer.

Inventors:

and Lewis F. Marsh
James Cree.

By James L. Norris,
att'y

UNITED STATES PATENT OFFICE.

LEWIS FAIRBURN MARSH, OF BRISTOL, COUNTY OF GLOUCESTER, AND
JAMES CREE, OF DENTON, COUNTY OF LANCASTER, ENGLAND.

APPARATUS FOR PARING THE BRIMS OF SILK AND FELT HATS, &c.

SPECIFICATION forming part of Letters Patent No. 294,246, dated February 26, 1884.

Application filed August 30, 1883. (No model.) Patented in England April 18, 1883, No. 1,963.

To all whom it may concern:

Be it known that we, LEWIS FAIRBURN MARSH, residing at Bristol, in the county of Gloucester, England, and JAMES CREE, residing at Denton, in the county of Lancaster, England, and subjects of the Queen of Great Britain, have invented new and useful improvements in apparatus for paring the brims of silk and felt and other hats after being
10 "curled" and "set," or otherwise, (for which we have obtained a patent in Great Britain, No. 1,963, bearing date April 18, 1883,) of which the following is a specification.

Our invention relates to hat-trimming machines; and it has for its object to provide mechanism for cutting or trimming the edges of hat-brims mechanically after the brims have been curled and set by hand, or by a hat curling and setting machine, preferably of the kind patented by John Robinson Kelsey, June 27, 1882, No. 260,298.

To this end our invention consists in the combination, with an adjustable gage-plate having a supporting-lip, of a guillotine-knife, a feeding-tool, and an adjustable face-plate, against which the hat-brim presses during the cutting operation, said face-plate having hooked end pieces pivoted thereto, and provided with adjusting devices by which they may be set to any size
30 of hat to be trimmed.

Our invention also consists in the novel construction and combination of parts hereinafter described, and pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation of the machine embodying our invention. Fig. 2 is an end elevation. Fig. 3 is a detail perspective, showing the cutting and feeding devices. Fig. 4 is a detail plan of the adjustable face-plate. Fig. 5 is a side elevation of the parts shown in Fig. 4. Fig. 6 is a rear elevation of Fig. 4.

A in said drawings represents a horizontal plate, which is supported by a standard, B.

Upon the plate A, at its outer end, is mounted
45 an angle-plate, L, adjustable thereon, and upon a stud, *l*, projecting from it, is pivoted a feeding-tool, M, which is normally drawn against a lug, *l'*, by means of a spring, P, attached to the tool above the pivotal point. The tool M has

a slot, *m*, through which the stud *l* passes, which
50 allows the tool to rise and fall. The lower serrated edge of the tool is thrown forward to effect the feed by a finger-cam, N, upon the shaft J, which, after making the feed, engages with the shoulder *n*, Fig. 3, and raises the tool, at
55 the same time permitting it to be retracted by the spring P.

Upon the right of the feed-tool, and forming part of the angle-plate L, is a block, K, having a thumb-screw, *k*, which passes through a slot
60 in an adjustable gage-plate, D, having a hooked extremity, E, which lies directly beneath the feed M. Just back of the latter, and having a bearing against its face, is a guillotine-knife, F, carried by a plate, G, pivoted to a stud, H,
65 said plate having a loop, *g*, within which rides a cam, I, rigid upon the shaft J, by which reciprocating motion is imparted to the knife F, the cam I being so timed that it operates the knife between the feed movements of the tool M.
70

Beneath the shaft J, and parallel with it, is arranged an arm, C, bolted to the standard B. In a channel formed longitudinally in this arm is mounted a bar, W, (see Fig. 4,) having a pin or stud, *w*, which projects from a slot, *w'*, in the
75 arm C. Upon the end of the bar is mounted a curved face-plate, S. This plate is adjustable toward and from the knife F by devices hereinafter described, and has pivotally attached near each end hooked plates S', connected by
80 steel springs Y Y with a device, *a*, which is adjustable longitudinally toward and from the face-plate S, thereby throwing the end pieces, S', forward, or retracting them to accommodate hats of different sizes.
85

Upon the arm C, in rear of the point where the pin *w* projects, is hung a lever, Q, having a finger, *b*, which bears against a set-screw, R, mounted in the plate A. Upon the end of the lever is formed an arm, X, extending rearward-
90 ly, and having a weight, X', upon its end, by which the finger *b* is thrown against the set-screw R. By adjusting the latter the lever Q may be thrown forward against the pin *w*, thereby forcing the plate S forward. By this device
95 the latter may be adjusted to any degree desired.

Z represents an upright pillow, having a

block, Z', upon its end, with a spiral spring surrounding the pillow and supporting the block Z', but allowing a certain elastic adjustment.

K' designates a belt-pulley upon the shaft J.

5 The operation of the machine is as follows: The hat, after its brim has been curled and set, is placed upon the pillow-block Z', with its brim bearing against the face-plate S and the edge lying under the feeding-tool M, supported by
10 the hooked end of the gage-plate D. Motion being given to the shaft J, the knife F is operated and the hat fed forward between its strokes until the brim is trimmed to the proper form.

The face-plate S may be adjusted by set-
15 screws U, which are mounted in flanges t upon the arm C, and bear against said plate.

What we claim is—

1. In a hat-trimming machine, the combination, with a feeding-tool and a reciprocating
20 knife, of an adjustable face-plate against which the hat rests during the operation of trimming, substantially as described.

2. The combination, with a hooked gage-plate upon which the edge of the hat-brim rests, of a
25 feeding-tool, a guillotine-knife, and an adjustable face-plate, substantially as described.

3. The combination, with the adjustable face-plate, of the end pieces jointed thereto, and means, substantially as described, for adjust-
30 ing the same to suit hats of different sizes, substantially as described.

4. The combination, with the adjustable face-plate, of the weighted lever having a finger upon its end and a set-screw bearing thereon, and
35 serving to adjust the position of the lever, substantially as described.

5. The combination, with the gage-plate having a hooked end, of the feeding-tool actuated by a cam upon the shaft of the machine, and
40 a spring drawing said tool downward and to one side, substantially as described.

6. The combination, with a reciprocating knife, of a feeding-tool and means, substantially as described, for actuating the same.

7. The combination, with a reciprocating or
45 guillotine knife, of a gage-plate which supports the hat-brim during the operation of trimming, and means for actuating said knife, substantially as described.

8. The combination, with the feeding-tool M,
50 having a slot, m, of the spring P and shaft J, having a cam, N, substantially as described.

9. The combination, with the face-plate S, of the pivoted end pieces, S', steel springs Y Y, and means for adjusting said end pieces rela-
55 tively to the face-plate, substantially as described.

10. The combination, with the gage-plate D, having hooked end E, of the knife F, carried by the plate G, pivoted to stud H, and having a
60 loop, g, the cam I, and shaft J, substantially as described.

In testimony that we claim the foregoing we have hereunto set our hands this 27th day of July, 1883.

LEWIS FAIRBURN MARSH.
JAMES CREE.

Witnesses to the signature of Lewis Fairburn Marsh:

WILLIAM EDWARD PARRY,
Bristol Chambers, Nicholas Street, Bristol, Solicitor.

JOHN ROBINSON KELSEY,
Hatter, 70 Regent St., New Lawn, Bristol.

Witnesses to the signature of James Cree:

CHAS. R. ALLEN,
Solicitor, Manchester.

JOS. HOWARTH,
Clerk with Messrs. Ormerod & Allen, Solicitors, Manchester.