

(No Model.)

P. MICHEL.

FRAME FOR STRETCHING WINDOW SHADES.

No. 341,594.

Patented May 11, 1886.

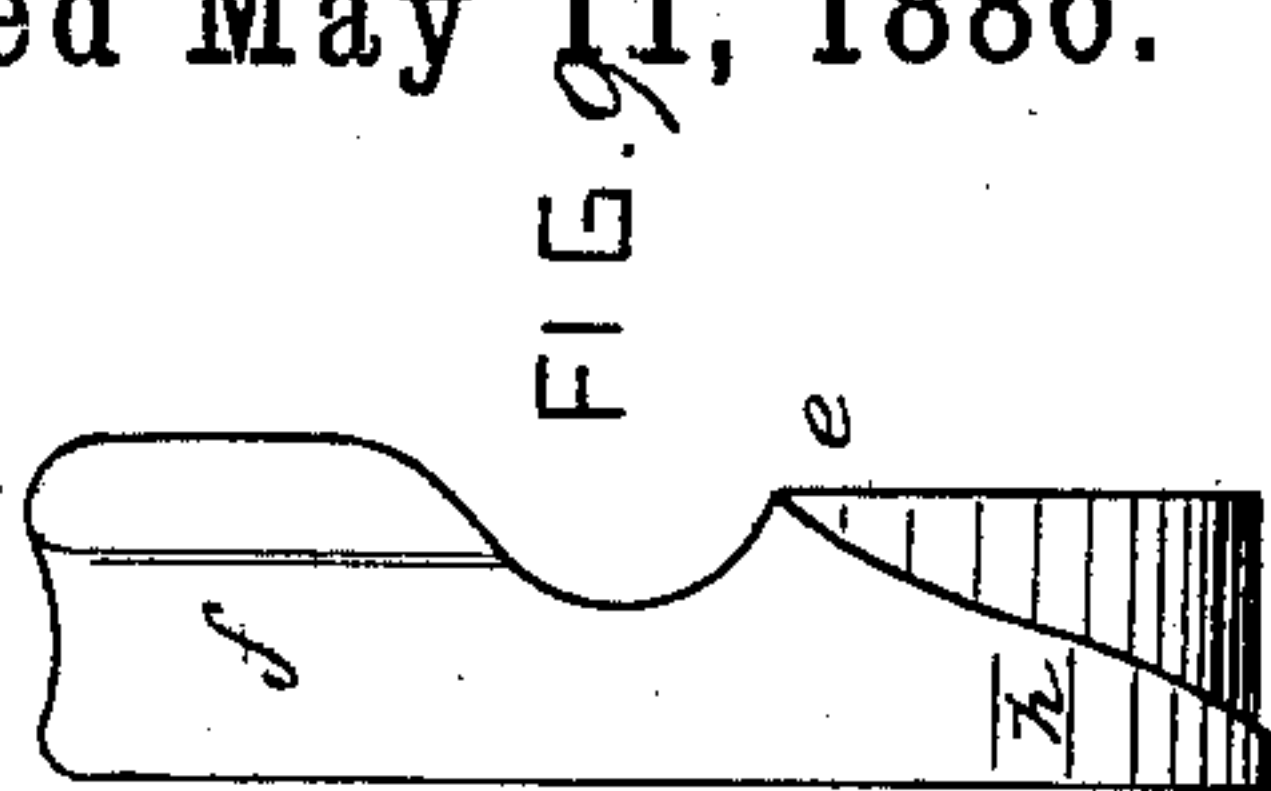
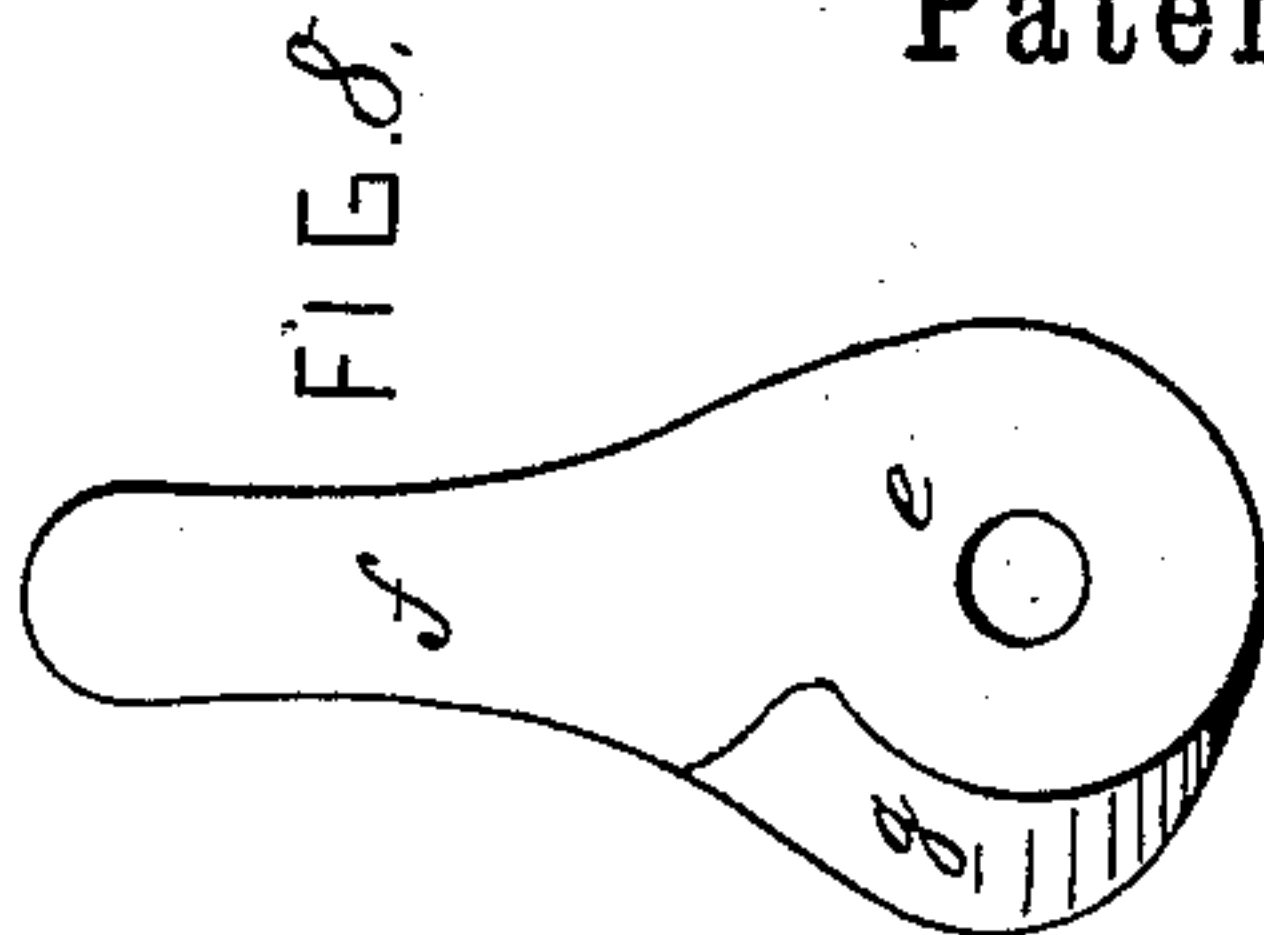
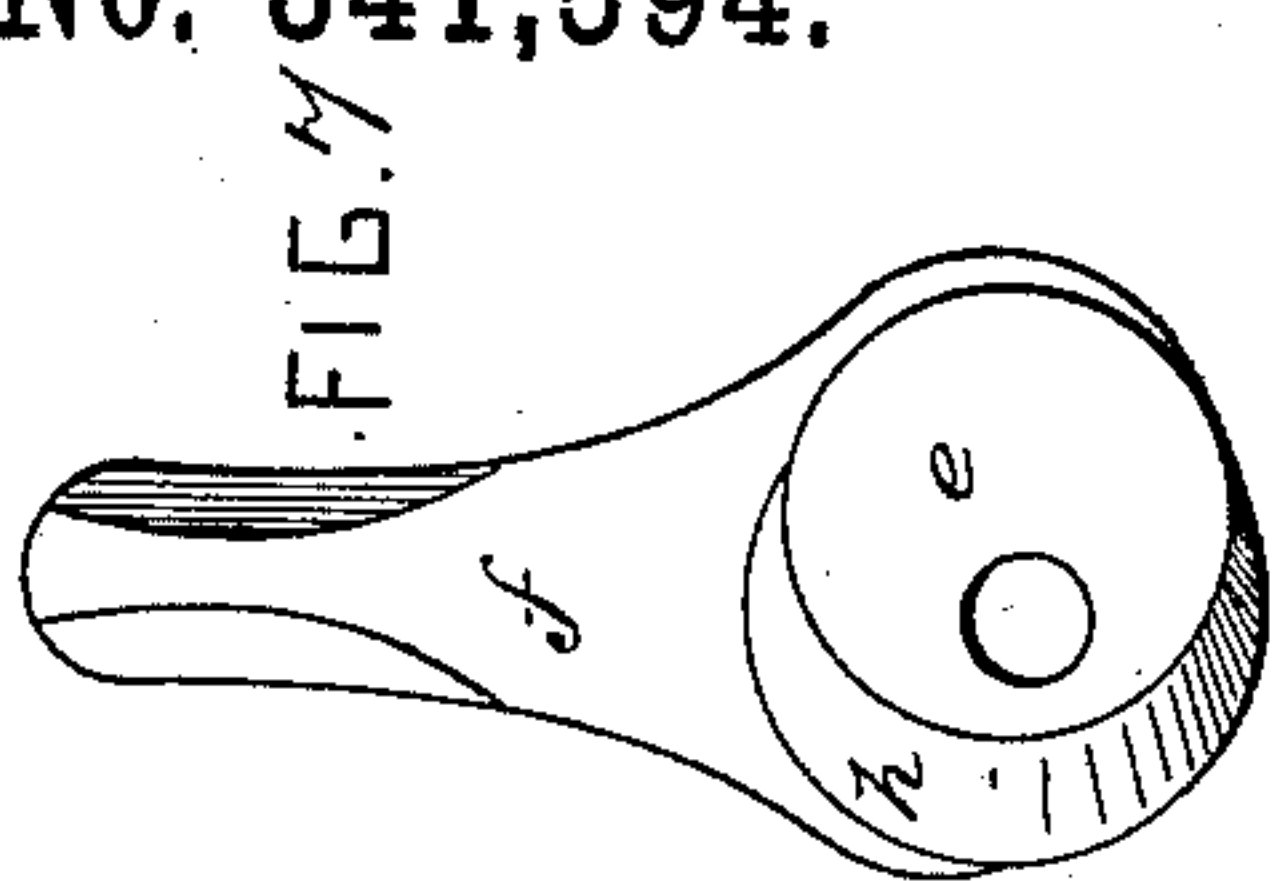


FIG. 1.

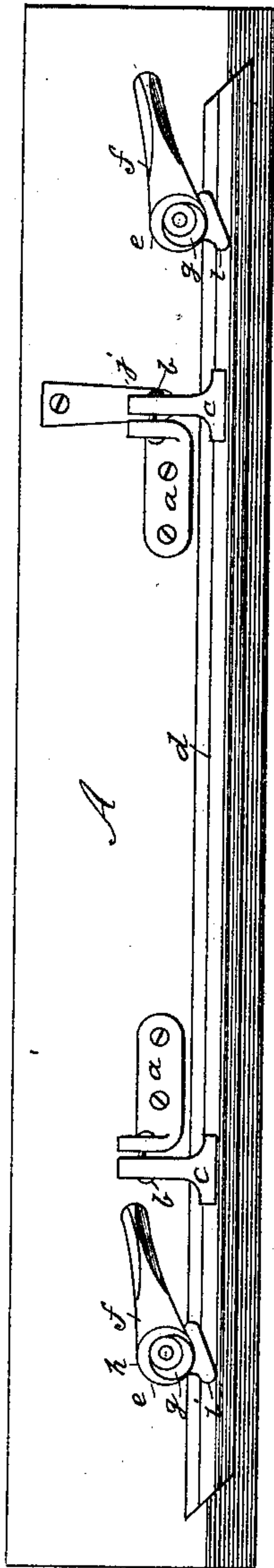


FIG. 2.

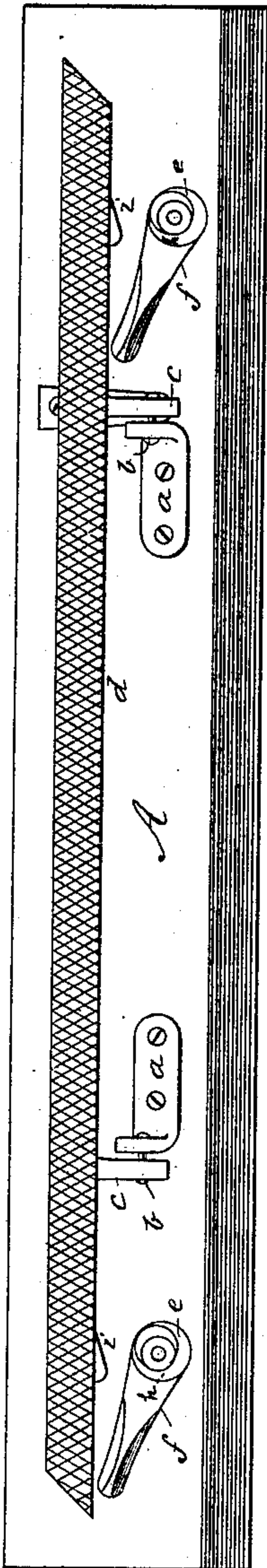


FIG. 3.

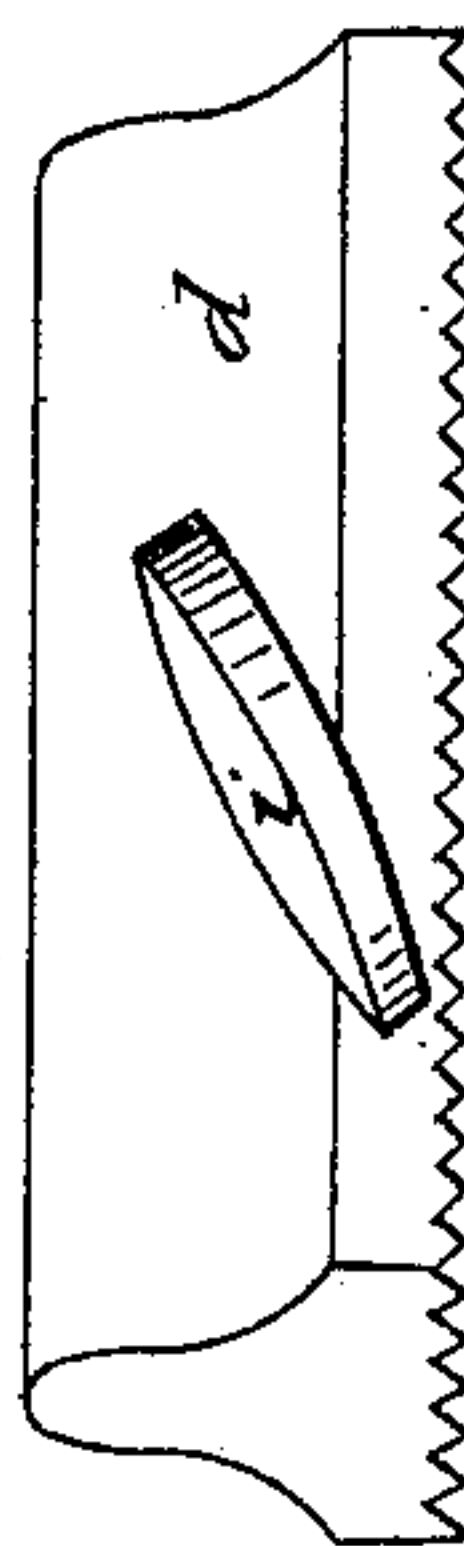
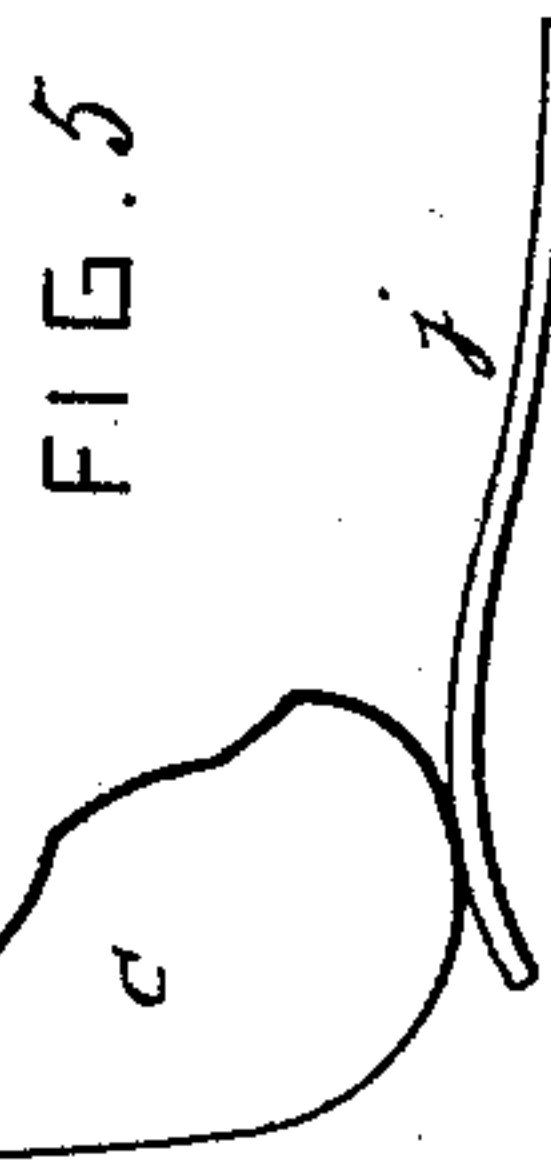
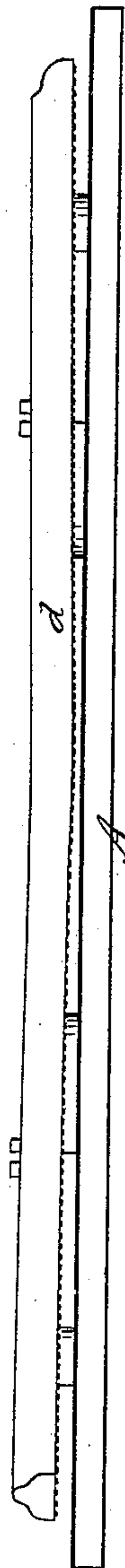


FIG. 4.

WITNESSES

Wm. A. Lowe
Robt. H. Roy

INVENTOR

Philip Michel
by his attorneys
Roeder & Brien

UNITED STATES PATENT OFFICE.

PHILIP MICHEL, OF STAPLETON, NEW YORK, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO HELENE MICHEL, OF SAME PLACE, AND JOHN RABING, OF NEW YORK, N. Y.

FRAME FOR STRETCHING WINDOW-SHADES.

SPECIFICATION forming part of Letters Patent No. 341,594, dated May 11, 1886.

Application filed March 31, 1885. Serial No. 160,854. (No model.)

To all whom it may concern:

Be it known that I, PHILIP MICHEL, of the town of Stapleton, county of Richmond, and State of New York, have invented a new and Improved Frame for Stretching Window-Shades, of which the following specification is a full, clear, and exact description.

This invention relates to frames used for holding and stretching woven fabrics while being sized with a glue preparation. The two long edges of the fabric are attached to two of the frames, placed one vertically above the other.

The present invention relates more particularly to devices for locking the clamping-rod over the bar, and to devices for raising the rod from such bar.

The invention consists, principally, in the combination of a bar with cams having inclined faces, and with a clamping-rod having lugs and pivotally connected to the bar by means of arms and eyes.

The invention also consists in the details of improvement, all as hereinafter more fully pointed out.

In the accompanying drawings, Figure 1 is a face view of my improved frame, showing the clamping device closed. Fig. 2 is a similar view with the clamping device opened. Fig. 3 is a front view of the frame; Fig. 4, a detail rear view of a portion of the clamping-rod. Fig. 5 is a side view of one of the arms *c* and the spring *j*. Fig. 6 is an edge view of one of the cams; Fig. 7, a front view of the same; Fig. 8, a back view of the same, and Fig. 9 a side view of the same.

The letter A represents a bar or strip of wood or other material, to which one of the long edges of the fabric to be sized is to be attached. For each frame two such bars are used, one vertically above the other, with the fabric between the two. One or both bars are connected with a suitable attachment, by which they may be drawn apart and held in position after the fabric is clamped to them. Such an attachment is shown, for example, in Patent No. 263,792, of September 5, 1882.

From one face of bar A project forwardly

two eyes, *a a*, into which enter pivots *b*, connected to arms *c*, attached to a clamping-rod, *d*. Thus the clamping-rod may be swung backward or opened, as in Fig. 2, or it may be swung forward and closed upon the bar, as in Fig. 1.

The description so far given is the same as that in an application for a patent filed by me August 16, 1884, under Serial No. 140,765, and forms no part of the present invention.

e e are two cams, pivoted to bar A, and provided with a suitable handle, *f*, by which they may be turned. These cams are made with two inclined planes or working-faces, *g h*, one being cut into the face and one into the back of each cam.

i i are lugs cast integral with rod *d*, and placed into an inclined position, as more clearly shown in Fig. 4. After the rod *d* has been swung forward to clamp the fabric the handles *f* are turned toward the right, and the front inclined faces, *g*, will bear upon the upper edges of lugs *i* and force the rod *d* down, Fig. 1. After the sizing has been completed and the rod is to be raised, the handles *f* are swung to the left. In this way the inclined faces *g* are withdrawn from above the lugs *i*, and at the same time the inclined faces *h* are introduced below the lower edges of such lugs, so as to lift the rod.

The importance of the inclined faces *h* will be apparent when it is considered that the fabric will adhere somewhat to the biting-surfaces, and that therefore some force is necessary to pull the rod *d* forward.

I prefer to make the lower or biting edge of rod *d* not in an exact straight line, but to curve it downward slightly toward the middle, Fig. 3. As the rod is locked down it will be straightened out, as the cams bear upon the rod at the right and left of the curve. When the rod is to be unlocked, the spring action imparted to it by means of its curved form will assist the inclined faces *h* to throw the rod up.

j is a spring placed beneath one of the arms *c*, and engaging a notch in said arm when the rod *d* is swung up. This spring prevents the

rod *d* from automatically falling down when opened.

I claim as my invention—

1. The combination of bar *A*, eyes *a*, pivots
5 *b*, and arms *c*, with rod *d*, having lugs *i*, and
with cams *e*, having inclined faces *g h*, sub-
stantially as specified.

2. The combination, with the bar *A*, of the

clamping-rod *d*, hinged thereto and curved
downwardly toward its middle, and the cams *e*, 10
for locking the said clamping-rod upon bar *a*,
substantially as and for the purpose specified.

PHILIP MICHEL.

Witnesses:

F. V. BRIESEN,
ROBT. ROY.