

F. M. CARTER.
Skiving-Machine.

No. 205,726.

Patented July 9, 1878.

Fig:1.

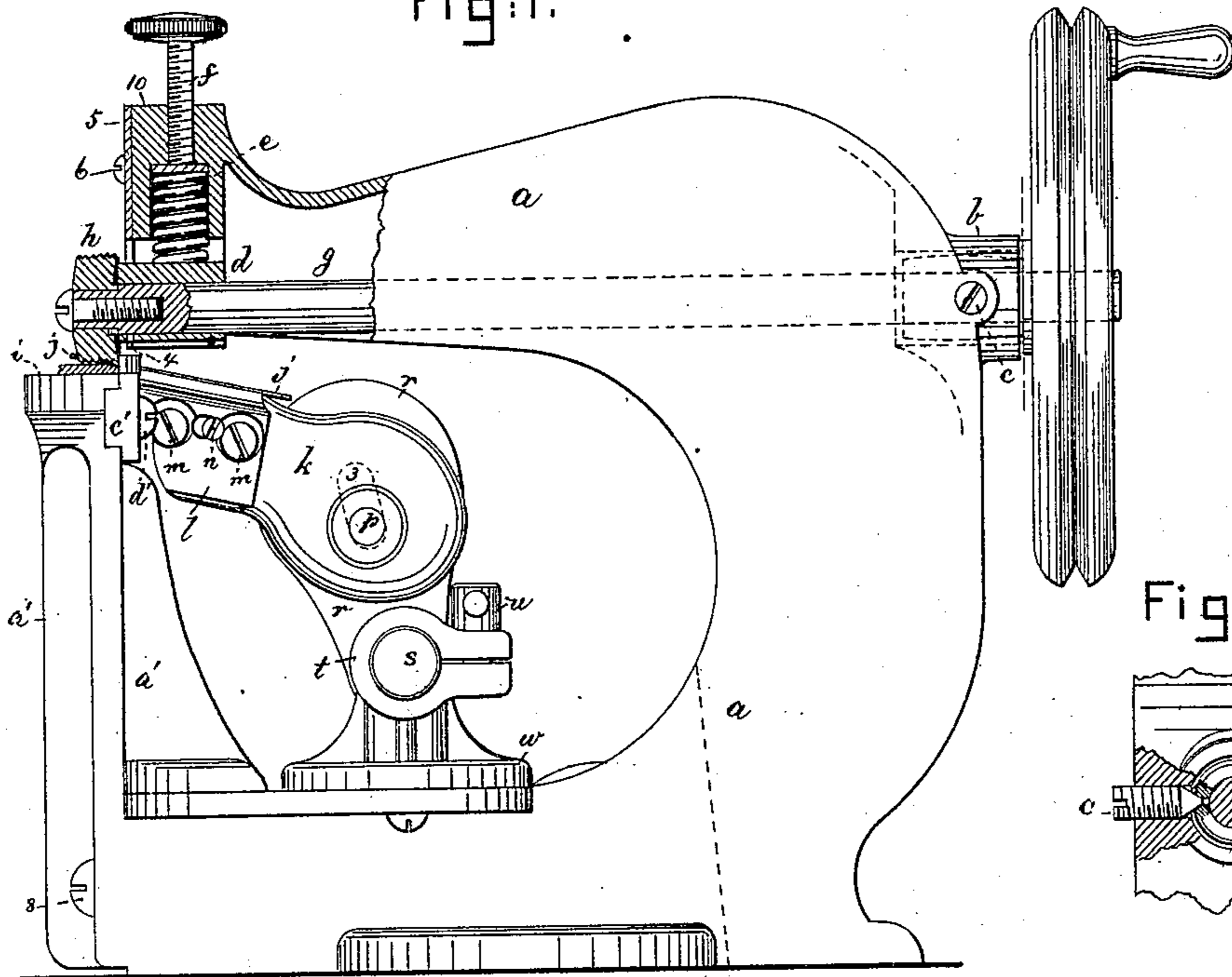


Fig:5.

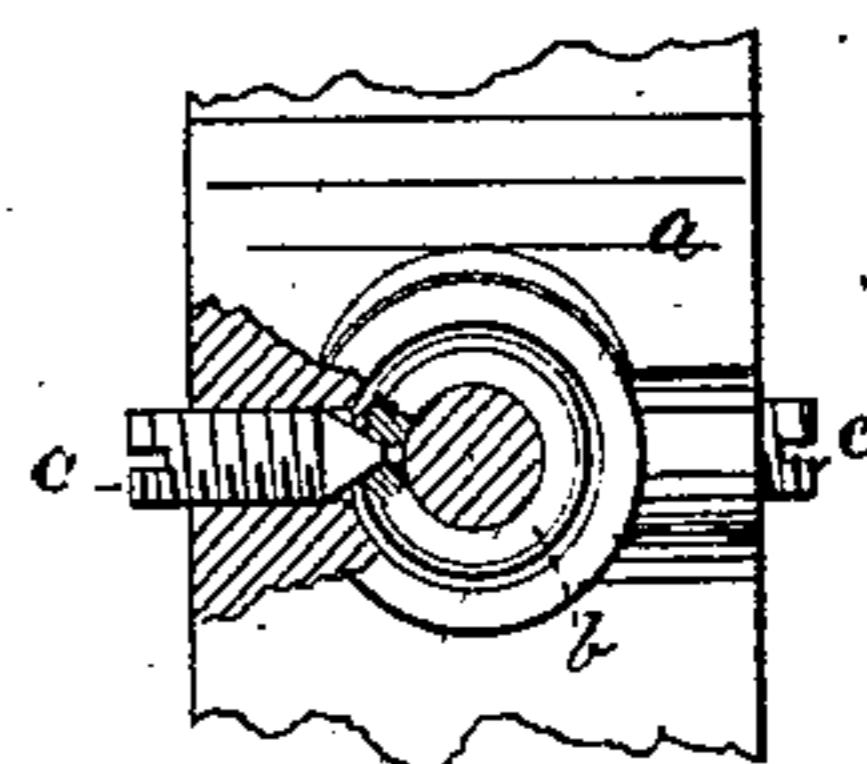


Fig:2.

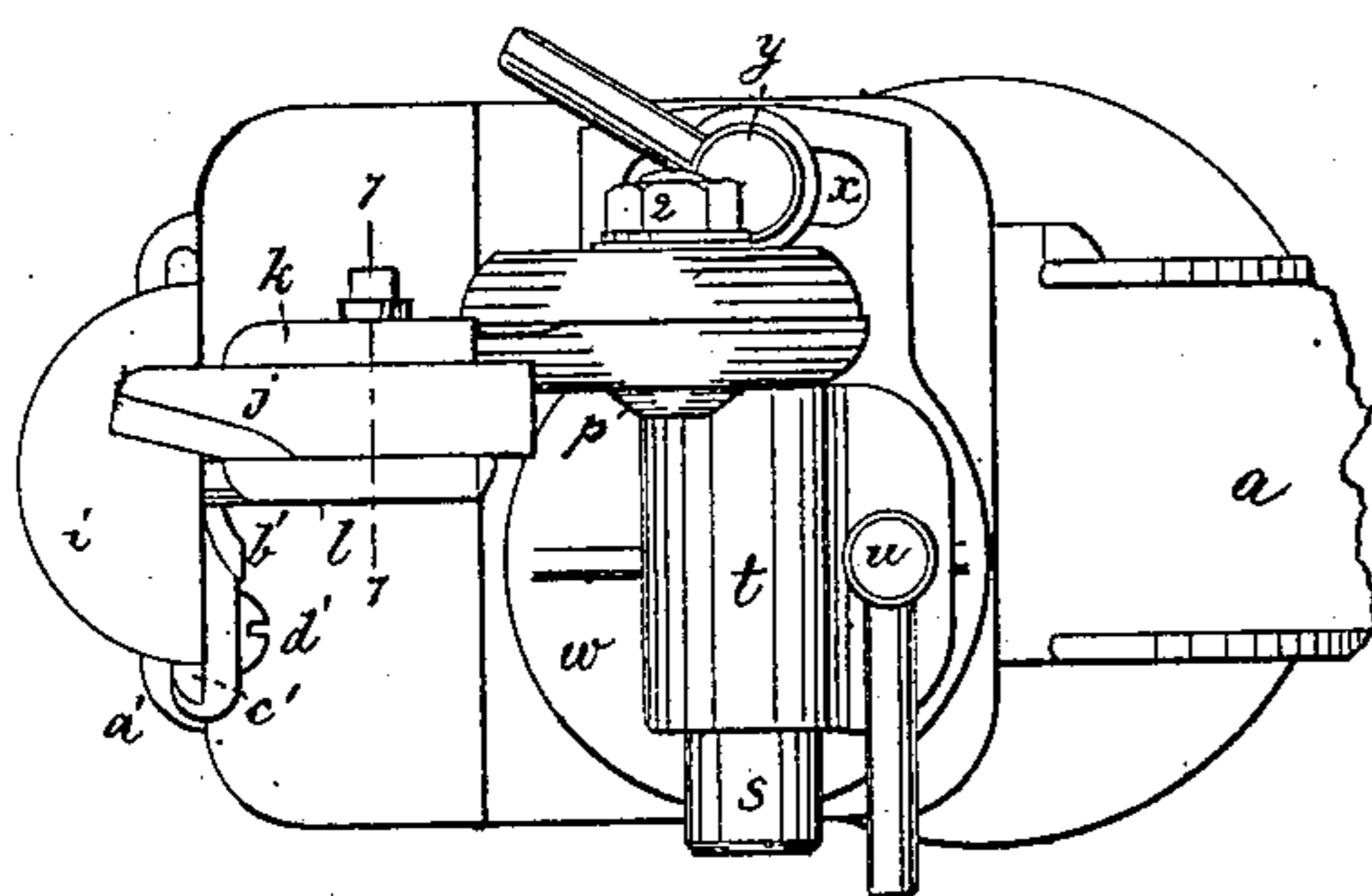


Fig:3.

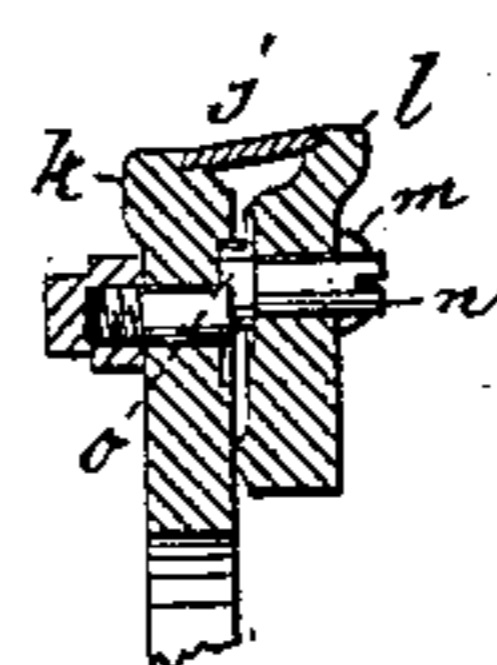
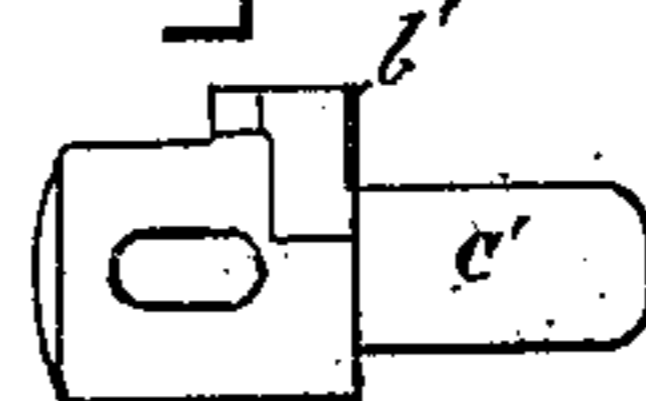


Fig: 4.



Witnesses.

L. F. Connor
N. E. Whitney.

Inventor.

Francis M. Carter
by Crosby Gregory Atty.

UNITED STATES PATENT OFFICE.

FRANCIS M. CARTER, OF MARLBOROUGH, MASSACHUSETTS.

IMPROVEMENT IN SKIVING-MACHINES.

Specification forming part of Letters Patent No. 205,726, dated July 9, 1878; application filed June 3, 1878.

To all whom it may concern:

Be it known that I, FRANCIS M. CARTER, of Marlborough, county of Middlesex, State of Massachusetts, have invented an Improvement in Skiving-Machines, of which the following is a specification:

This invention relates to machines for skiving leather, leather-board, &c.; and consists in the combination, with the skiving-knife, of mechanism, substantially as hereinafter described, to adjust it with reference to the work-supporting plate; also, in the combination, in a skiving-machine, of a post provided at the top with a small plate and a guide, whereby the workman may hold the material being skived quite close to the feeding device and knives, so that said material may be turned quickly and accurately for skiving the edges of leather shaped as small curves; also, in an eccentric-screw, to control the pitch or incline of the flat side and edge of the knife with reference to the thickness of the material.

Figure 1 represents, in side elevation, and partly in section, a skiving-machine embodying my invention; Fig. 2, a top view of the work-support and knife-holder removed; Fig. 3, a sectional detail, on line 7 7, Fig. 2, of the jaws which grasp the blade; Fig. 4, the guide detached, and Fig. 5 the pivoted bearing for the rear end of the main shaft.

The goose-neck or frame *a* has at its rear end a bearing, *b*, pivoted upon the ends of screws *c*; and in said bearing and a loose bearing, *d*, held down by a spring, *e*, regulated as to its pressure by a screw, *f*, is mounted the main shaft *g*, which, at its outer end, has attached to it the feed-wheel *h*, to move the leather or other material resting upon the small plate *i* up to and past the skiving-knife *j*, held between the jaws *k l*, they being related, as shown in Fig. 3, to embrace the edges of the shank of the knife; and one of the jaws—the one *l*—is made adjustable vertically with relation to the jaw *k*, so as to change the rake or pitch of the cutting-edge of the blade, so as to remove a skiving of the desired thickness, and according to the thickness of the material.

Screws *m m* cause the two jaws to firmly hold the knife; and by turning the cam-screw *n*, having a cam or eccentric, *o*, upon it, which operates upon a portion of jaw *k*, the jaw *l* is raised

or lowered to correspondingly raise or lower the edge of the knife held by said jaw. Jaw *l* is carried by jaw *k*, and the latter is pivoted upon a bolt, *p*, which extends through a diagonal slot, 3, (shown in dotted lines, Fig. 1,) in a standard, *r*, the bolt receiving at its end a nut, 2.

The standard *r* has a shank, *s*, which is held in a split bearing, *t*, closed against the shank by a screw, *u*. The bearing *t* is formed on a pivoted front piece, *w*, slotted at *x*, and provided with a set-screw, *y*, to hold it in adjusted position with reference to the post or horn *a'*.

By reason of the construction above described of the parts *w t s r p k l*, it will be obvious that the edge of the knife may be adjusted in any desired position with reference to the surface of the plate *i*, upon which rests the material being skived, and consequently that the width and thickness of the skiving may be accurately determined, no matter what the thickness or character of the material may be.

The gage *b'* has a shank, *c'*, fitted to slide horizontally in a groove made in the post *a'* at its rear side, a set-screw, *d'*, holding it in position, and the inner face of the gage is rounded, so as to permit the material to be readily turned in short curves.

In other skiving-machines heretofore made the material has usually been held upon a flat table of considerable area, so that, when working upon curved edges or edges cut to fancy patterns, it has been very difficult to grasp the material sufficiently close to the feed and knife to turn the material in small curves. To overcome this difficulty, I have placed at the front of the machine a small vertical horn or post, *a'*, connecting it by screws 8. The top plate *i* of the post is made very small, or just large enough to hold up the material to the action of the feed and knife, and by the employment of such horn (it permitting the leather or other material to be grasped by the fingers above and below close up to the feed) the range of work which can be skived upon the machine is increased and the quality of the work is greatly improved.

The bearing or box *d* (see Fig. 1) is supported upon a cross-bar, 4, at the lower end of the plate 5, adjustably attached by suitable screws 6 to the head 10 of the machine, so that

by adjusting the said plate vertically the point to which the feed-wheel may descend is regulated. The bearing is notched at its under side, as shown in said figure, to receive this cross-bar and permit the bearing to be brought down flush with the top of the gage *c'*, thin stock being then skived. This construction, which enables me to bring the bearing and wheel down close to the gage, permits the wheel *h* to be made of less diameter than otherwise, which brings the acting portion of its periphery closer to the cutting-edge of the knife, which is a great desideratum.

In Fig. 1 the wheel *h* is supposed to be lifted a little from the bearing by a piece of leather. In other skiving-machines heretofore made the knives have been held above the work-supports and inclined downward, as in United States Patent No. 191,418, and that edge of the leather being skived has rested upon the support below it, somewhat back from the edge of the said support.

In this my invention the plate *i* is made very small. Its rear edge is made straight, and substantially in the same plane with the rear face of the feeding-wheel, and the knife held below the plate is projected upward over it, which permits the edge of the material being skived to be brought to the edge of the plate, and consequently the plate may be made of less area, to thereby facilitate better manipulation and more accurate movement of the material.

I claim—

1. In a skiving-machine, the post *a'*, connected rigidly with the front of the frame *a*, and provided with the small top plate *i*, to sup-

port the material being skived, combined with a gage, connected with the side of the post, to direct the material, the dimensions of the plate *i* being such as to permit the material to be grasped by hand close up to the feed-roller and knife, substantially as described.

2. In a skiving-machine, the adjustable part *w*, bearing *t*, adjustable standard *r*, and adjustable jaw *k*, combined with a jaw opposed to jaw *k*, to hold the knife, substantially as and for the purpose described.

3. The jaws *k* *l*, the standard *r*, and an adjustable device to hold the jaw *k* and standard in adjusted position, as shown and described.

4. The jaws *k* and *l* and the knife, combined with a device, substantially as described, to adjust the jaw *l* with reference to jaw *k* to raise or lower the forward edge of the knife, as and for the purpose set forth.

5. The combination, with the head 10 and the notched box *d*, of the cross-bar to enter the notch in the bearing, to operate substantially as described.

6. In a skiving-machine, the post *a'* and top plate *i*, provided with a straight rear edge in substantially the plane of the rear face of the feed-wheel, combined with a knife extended upward and diagonally across said straight edge of the plate, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANCIS M. CARTER.

Witnesses:

G. W. GREGORY,
N. E. WHITNEY.