2 Sheets. Sheet 1.

A. Kamp,

Sewing Machine.

No. 108033.

Patented Oct. 4. 1870.

Fig. 1.

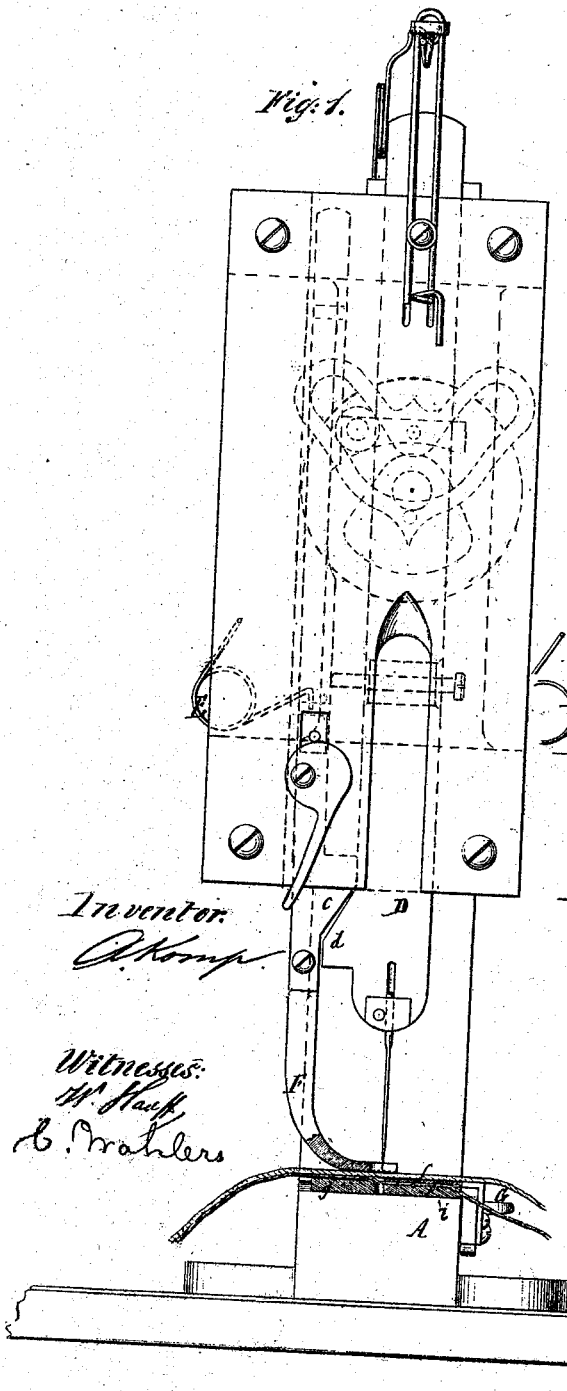
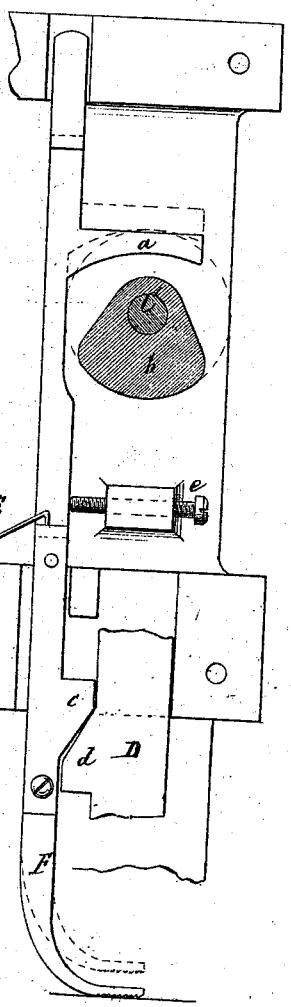


Fig. 2.



Inventor:
A. Kamp

Witnesses:
W. Hauff
A. Prahlers

2 Sheets Sheet 2

A. Komp,

Sewing Machine.

No. 108,033. Patented Oct. 4. 1870.

Fig: 3.

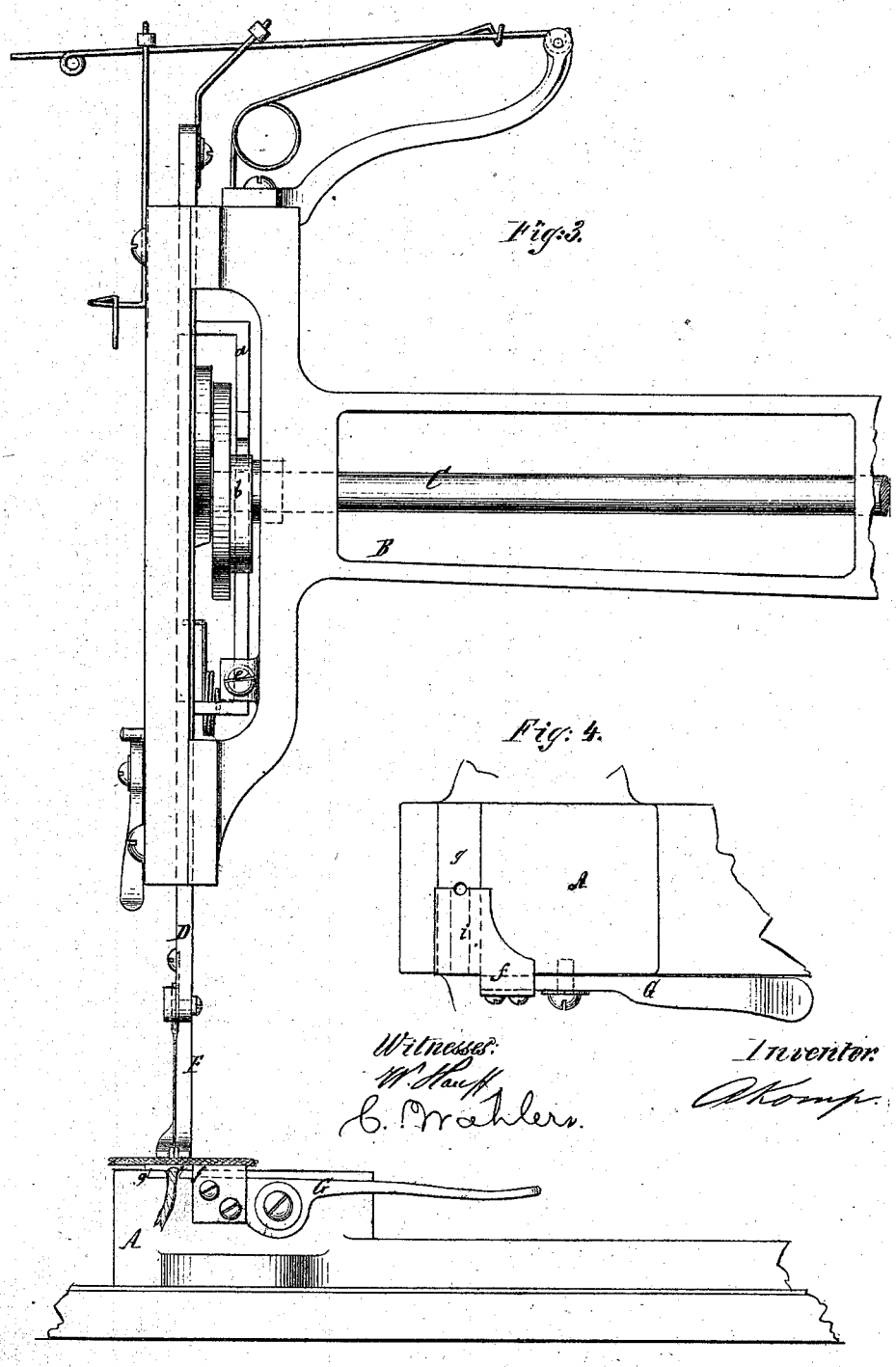


Fig: 4.

Witnesses:
W. Rauff
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Inventor:
A Komp.

UNITED STATES PATENT OFFICE.

ALBERT KOMP, OF NEW YORK, N. Y.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **108,033**, dated October 4, 1870.

To all whom it may concern:

Be it known that I, ALBERT KOMP, of the city, county, and State of New York, have invented a new and useful Improvement in Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which drawings—

Figure 1 represents a front view of this invention, partly in section. Fig. 2 is a sectional view of the feed mechanism. Fig. 3 is a side view of the machine. Fig. 4 is a horizontal section of the same.

Similar letters indicate corresponding parts.

This invention relates partly to the feed mechanism of a sewing-machine, which is effected by the action of the presser-foot to which the requisite motion is imparted by the combined action of a cam on the main shaft and of another cam on the needle-slide. The invention also relates to a braid-guide which is secured to a lever hinged, as hereinafter described, to the cloth-plate of the sewing-machine, and which is held down upon the throat-plate of the sewing-machine by the yielding pressure of the presser-foot, so that it can be readily raised for the introduction of the braid, and that the same, while the operation of sewing progresses, is free to accommodate itself to any inequality in the thickness of the braid.

In the drawings, the letter A designates the cloth-plate of a sewing-machine, from the back part of which rises the arm B, (see Fig. 3,) which forms the bearings for the main shaft C, and to the front end of which are attached the needle-slide D and the presser-foot F. This presser-foot is subjected to the action of a spring, E, and it is fitted in its guides so that it can readily rise and fall, and also swing in the direction in which the feed is to take place.

From the shank of the presser-foot extends an arm, *a*, over a cam, *b*, mounted on the main shaft, and as this cam revolves the presser-foot is alternately lifted up against the action of its spring, and then allowed to sink down, so as to clamp the material to be sewed down upon the cloth-plate.

From the edge of the presser-foot bar projects a nose, *c*, against which acts a cam, *d*, attached to the edge of the needle-slide, (see Fig. 2,) and the spring E is so adjusted that it has a tendency to hold the presser-foot down and in toward the needle-slide. The reciprocating motion of the needle-slide and the rising and falling motion of the presser-foot are so timed in relation to each other that the presser-foot is down when the needle enters, and when the needle has been withdrawn from the cloth the cam *d* of the needle-slide acts on the nose *c*, and the feed-motion takes place. Then the presser-foot rises, together with the needle-slide, and remains stationary for a short time, until the needle-slide has descended far enough to carry the arm *d* clear of the nose *c*, when the presser-foot falls in toward the needle-slide and is immediately depressed, so as to retain the cloth in position while the needle penetrates through the same. A set-screw, *e*, serves to regulate the length of the stitch.

To the side of the cloth-plate is pivoted a lever, G, which carries the braid-guide *f*. This braid-guide consists of an angular piece of sheet metal, as shown in the drawings, and it is secured to the lever G by set-screws, so that it can be readily taken off and changed for another. The working part of the braid-guide lies flat upon the throat-plate *g*, which is provided with an offset equal in depth to the thickness of the braid-guide, so that when said braid-guide is down its upper surface is level with the highest portion of the throat-plate. In the under surface of the braid-guide is a groove, *i*, to receive the braid, and by raising the braid-guide up the braid can be readily introduced under it. After the braid has been adjusted under the braid-guide the latter is depressed, and it is held down during the action of the needle by the end of the presser-foot, which extends somewhat beyond its edge, as shown in Fig. 1, and the braid-guide is thus held down by a yielding pressure, so that it can readily adjust itself to any inequality existing in the thickness of the braid.

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

1. The arrangement of the cam *b* on the shaft C, arm *a*, presser-foot F, nose *c*, cam *d* on the needle-slide, and spring E, all as shown and described.

2. The braid-guide *f* and the hinged lever G, in combination with the throat-plate *g* and presser-foot F, all constructed and arranged substantially as set forth.

A. KOMP.

Witnesses:
W. HAUFF,
C. WAHLERS.