No. 620,951. Patented Mar. 14, 1899.

G. MOTTE.

APPARATUS FOR CUTTING PILE OF PILE FABRICS.

(Application filed May 4, 1898.)

(No Model.)

Fig. 1.

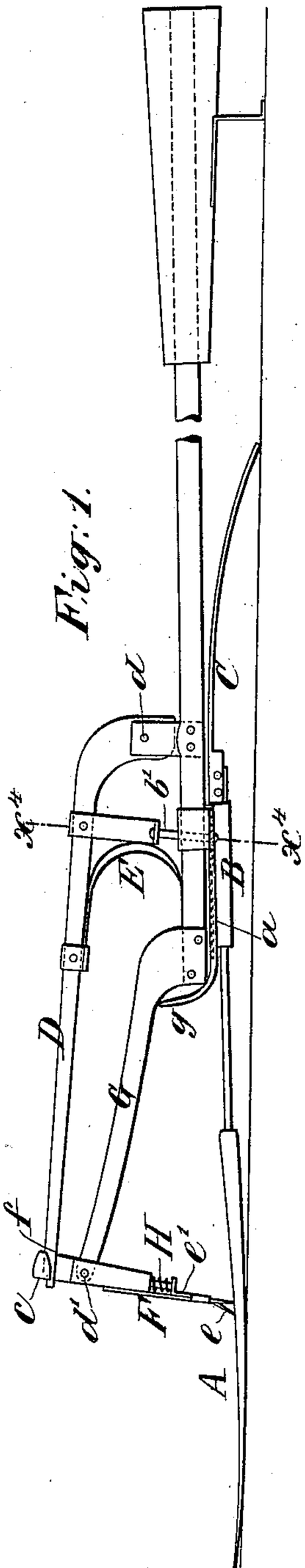

Fig. 2.

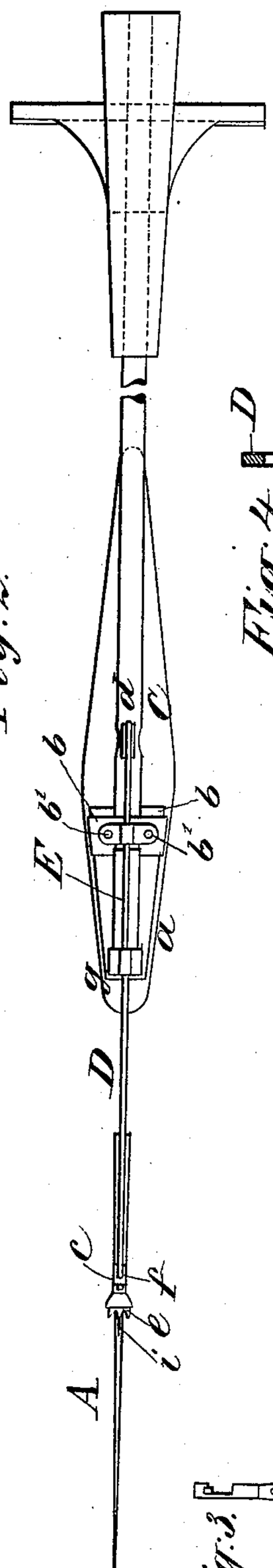

Fig. 4.

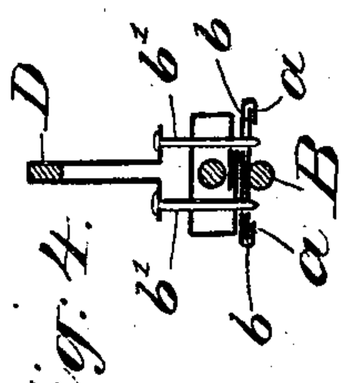

Fig. 5.

Fig. 3.

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UNITED STATES PATENT OFFICE.

GEORGES MOTTE, OF ROUBAIX, FRANCE, ASSIGNOR TO THE SOCIÉTÉ MOTTE-BOSSUT FILS ET MENGERS, OF SAME PLACE.

APPARATUS FOR CUTTING PILE OF PILE FABRICS.

SPECIFICATION forming part of Letters Patent No. 620,951, dated March 14, 1899.

Application filed May 4, 1898. Serial No. 679,678. (No model.)

To all whom it may concern:

Be it known that I, GEORGES MOTTE, a citizen of the French Republic, and a resident of Roubaix, (Nord,) France, have invented certain Improvements in Cutters for Cutting the Pile of Pile Fabrics, of which the following is a specification.

This invention relates to devices for cutting the pile of pile fabrics, such as cotton velvet, for example; and the object is to provide a knife or cutting-blade which will be forcibly and automatically disengaged from its propelling holder or carrier at the instant the blade enters the body of the fabric, (should it do so,) thus arresting its further forward movement and preventing the laceration or tearing of the fabric.

In the accompanying drawings, which illustrate an embodiment of the invention, Figure 1 is a side elevation of the cutter, showing it in the normal position for use. Fig. 2 is a plan thereof. Fig. 3 is a front view of the trigger F. Fig. 4 is a transverse section at x^4 in Fig. 1. Fig. 5 is a view similar to Fig. 1, but showing the positions of the parts when the knife or blade is disengaged from its holder or carrier.

In this device, A is the knife or blade for cutting the pile, and B its handle or shank.

C is the holder or carrier of the knife, by means of which the proper motions are transmitted to the blade A.

The handle B of the knife is provided with lateral flanges *b*, which engage keepers *a* on the holder C, and the said handle is held in place in the keepers by detent-pins *b'*, one at each side of the knife-axis. These pins are carried by a lever D, fulcrumed on the carrier C at *d*, and they pass down through holes in the flanges *b* and coincident holes in the carrier C; but they may be withdrawn so as to free the blade A from the carrier by raising the lever D, as seen in Fig. 5. The lever D has under it a suitable spring E, tending to elevate it, and it is held down normally by its extremity *f* taking under a hook *c* on the upper end of a trigger F, pivoted at *d'* to the end of a rigid arm G on the carrier C. At its lower end the trigger F has prongs or teeth *e*, preferably three, the middle one resting in a slight guide-groove *i* in the upper edge of the knife or blade A and the other two being situated at the respective sides of the blade.

Normally the trigger F stands in the position seen in Fig. 1—that is, nearly perpendicular to the knife—but if the knife in moving forward should enter the body of the pile fabric the teeth *e* will engage the fabric and be pressed backward, thus swinging the trigger F to the position seen in Fig. 5. This releases the lever D and allows it to fly up, withdrawing the pins *b'* and releasing the knife from the carrier C. The latter may continue to move forward a little farther, but the knife A remains stationary, the flanges *b* moving back out of their keepers *a*.

Preferably the keepers *a* and flanges *b* will taper toward the front end of the cutter, so that when the flanges are pushed forward in place in the keepers they will fit snugly or tightly therein and hold the blade steady; but when pressed back they will free themselves readily. Preferably, also, the part *e'*, carrying the prongs or teeth *e*, will be mounted to slide on the body of the trigger F and be backed by a spring H. This construction facilitates resetting the trigger to the position seen in Fig. 1, as it makes the length of the trigger elastically adjustable.

The knife is maintained in a horizontal position in the fabric by means of the base-plate of the carrier, and the plate of the keeper-guides *a* has a forward extension *g*, which is curved upward to form a guard and prevent the knife-carrier in its forward movement from catching in and tearing the fabric.

The swing of the trigger F about its pivot-point is sufficient to allow the points of the teeth or prongs *e* to clear the fabric entirely and not catch therein in whatever direction the carrier C moves.

Having thus described my invention, I claim—

1. In a cutter for cutting the pile of pile fabrics, the combination with a carrier for the cutting-knife, and the said knife detachably connected thereto, of means for detaching the knife from the carrier when the knife enters the body of the fabric, said means comprising a spring-actuated detaching-lever on the carrier, and a trigger pivoted on the car-

rier and engaging said lever to hold it down, said trigger being provided at its lower end with teeth so situated as to catch in the fabric and swing the trigger when the knife enters the body of the fabric, substantially as set forth.

2. In a cutter for cutting the pile of pile fabrics, the combination with the carrier C, provided with keepers *a*, and the knife A, having a handle B, provided with flanges *b* which engage said keepers, of the detaching-lever D, mounted on the carrier and provided with a spring for throwing it up, the pins *b'*, carried by the lever D and engaging coincident holes in the flanges *b* and the carrier when said lever is depressed, and the trigger F, pivotally mounted on the carrier and having a hook *c* at its upper end to take over the lever D and teeth *e* at its lower end to engage the fabric if the knife penetrates it, the lower end of the trigger being guided on the knife, substantially as set forth.

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

GEORGES MOTTE.

Witnesses:
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