

(No Model.)

J. M. LIVINGSTON.
POCKET KNIFE.

No. 575,361.

Patented Jan. 19, 1897.

Fig. 1

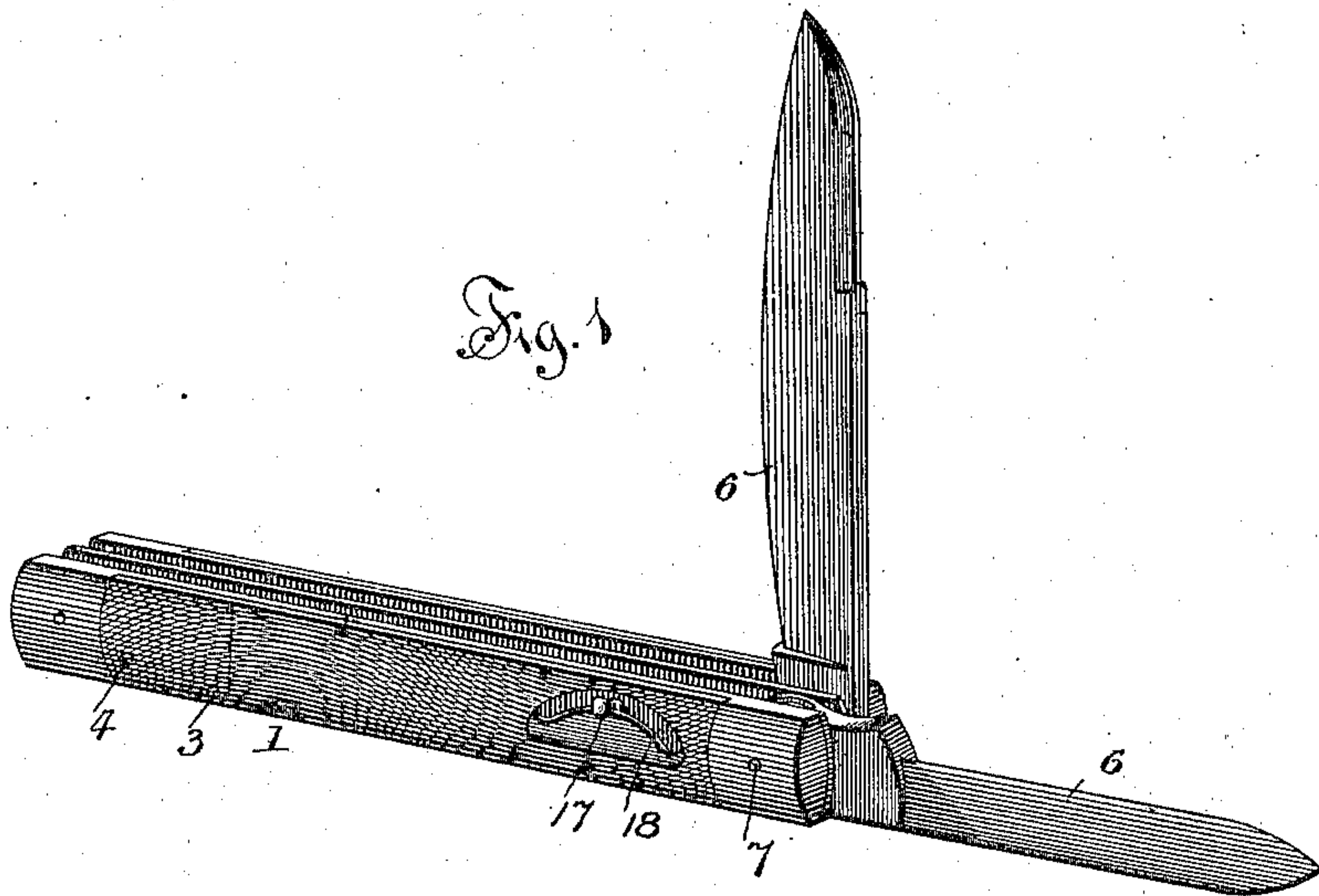


Fig. 2.

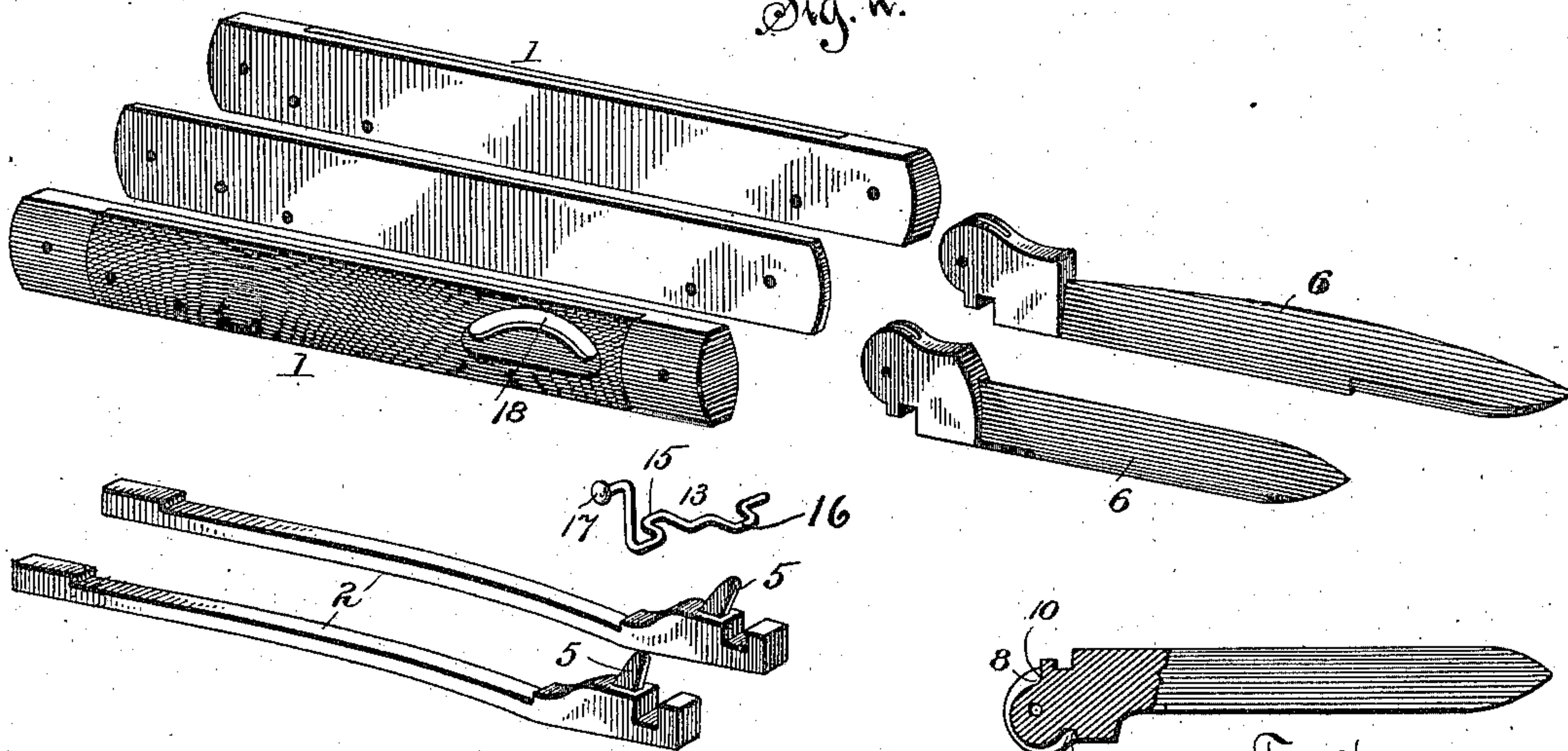
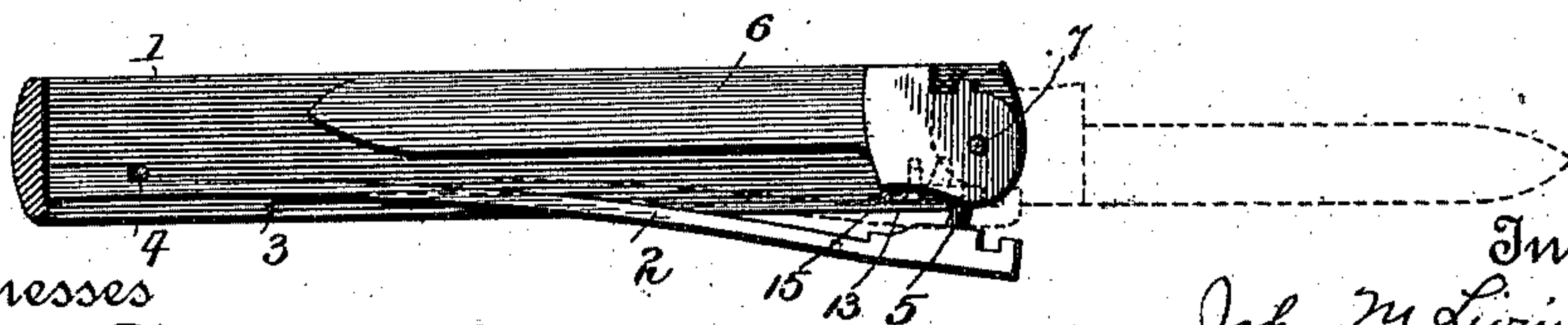


Fig. 3.

Fig. 4.



Witnesses
John Enders, Jr.
H. A. Rau.

Inventor
John M. Livingston
by John Weddell
his Attorney

UNITED STATES PATENT OFFICE.

JOHN M. LIVINGSTON, OF LORTON, NEBRASKA.

POCKET-KNIFE.

SPECIFICATION forming part of Letters Patent No. 575,361, dated January 19, 1897.

Application filed June 29, 1896. Serial No. 597,291. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. LIVINGSTON, a citizen of the United States, residing at Lorton, in the county of Otoe and State of Nebraska, have invented certain new and useful Improvements in Pocket-Knives; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in knives, the object of the same being to produce a pocket case-knife in which the blades thereof are self-opening.

It is a well-known fact that great inconvenience is caused by reason of the old construction of knives, where it is necessary to open the blades with the finger-nail. The nail is broken and sometimes, especially in new knives, it is impossible to open the blades in this way.

The purpose of my invention is to obviate the above difficulty; and with these objects in view my invention consists of a knife-case, springs mounted in the rear attached thereto and extending longitudinally of the case, knife-blades pivotally mounted in the ends of the case, having cam-shaped edges which are engaged by a projection on the end of the spring, and a double-crank lever extending laterally through the case, provided with a handle moving in a segmental slot in said case, the crank portions of said lever being adapted to engage the under side of the knife-blades for the purpose of giving them their initial movement in the act of opening the blades.

The invention also consists in other details of construction and combinations of parts, which will be hereinafter more fully described and claimed.

In the drawings forming a part of this specification, Figure 1 represents a perspective view of my improved knife with the blades in their open positions. Fig. 2 is a similar view of the same, showing the parts detached. Fig. 3 is a longitudinal section through the same, showing the double-crank lever in its operative position. Fig. 4 is a detail perspective view of one of the blades.

Like reference-numerals indicate like parts in the different views.

The casing 1 of my knife has attached to it along its rear edge springs 2 2, which are kept under tension by means of the pin 3, passing beneath the rear end thereof, and the pin 4, serving as a fulcrum, passing on top of the springs 2. The upper ends of the springs 2 are provided with fingers 5 5, which are adapted to engage and bear against the cam-shaped edges of the knife-blades 6, which are pivoted on the pin 7 in the casing 1. The edges of the knife-blades are grooved, as shown, and are provided at both ends with recesses or depressions 8 9, forming shoulders 10 11, by means of which said blades are held by the pressure of the springs 2 in their open or closed positions.

It will be seen that by reason of the constant pressure of the springs against the cam-shaped edges of the knife-blades there is a constant tendency to throw the latter into their open positions. When the fingers 5, however, are resting in the recesses 8 9, they are prevented from throwing the blades open by reason of the shoulders 10. Extending transversely through the casing 1 beneath the under side of the blades 6, when the latter are in their closed position, is a shaft or lever 13, which has two oppositely-arranged arms or projections 15 16 thereon. The said lever is also pivoted in the sides of the casing and provided with a handle 17, which moves in a segmental slot 18 in the casing 1. The arm 15 on the lever 13 is adapted to engage, when said lever is turned in one direction, the under side of one of the knife-blades, and the arm 16, when the lever is turned in the opposite direction, is adapted to engage the under side of the other knife-blade.

From the foregoing description, taken in connection with the accompanying drawings, it is thought that the operation of my device will be readily understood. It may be stated in brief, however, as follows: If the knife-blades are closed in the position in which they are shown in Fig. 1, with the fingers resting in the recesses 8 9 against the shoulders 10 11, one of the blades may be opened by forcing the handle 17 of the lever 13 in a forward direction along the segmental slot 18. This action causes the arm 15 on the shaft 13 to bear against the under side of the blade 6 and to give the latter its initial outward move-

ment. As soon as the blade is forced far enough for the shoulder 11 to be thrown out of engagement with the finger 5 the spring 2, acting against the cam-shaped edge of the blade 6, will throw the said blade outwardly with a quick movement. The reverse operation of the handle 17 of the lever 13 will cause the other arm 16 of said lever to engage the under side of the other blade 6 and cause it to be opened in like manner. The blades are held in their open position by the fingers 5 resting in the depression 8 and engaging the shoulders 10.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The herein-described self-opening knife which consists of the combination with a handle or casing, of blades pivotally mounted in

one end thereof, having cam-shaped bearing-surfaces, which are grooved and formed with depressions and shoulders therein, springs secured along the outer edge of said casing, engaging the cam-shaped portions of said blades, a rock-shaft extending transversely through said casing whose crank portions are adapted to engage the under side of said blades when the latter are in their closed position and a handle on the outer end of said rock-shaft, substantially as, and for the purpose described.

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

JOHN M. LIVINGSTON.

Witnesses:

MARION F. LIVINGSTON,
MIRIAM J. LIVINGSTON.