

J. H. Abbott and J. A. Marden.
Splitting-Leather.

Nº 75.823.

Patented Mar. 24. 1868.

Fig. 1.

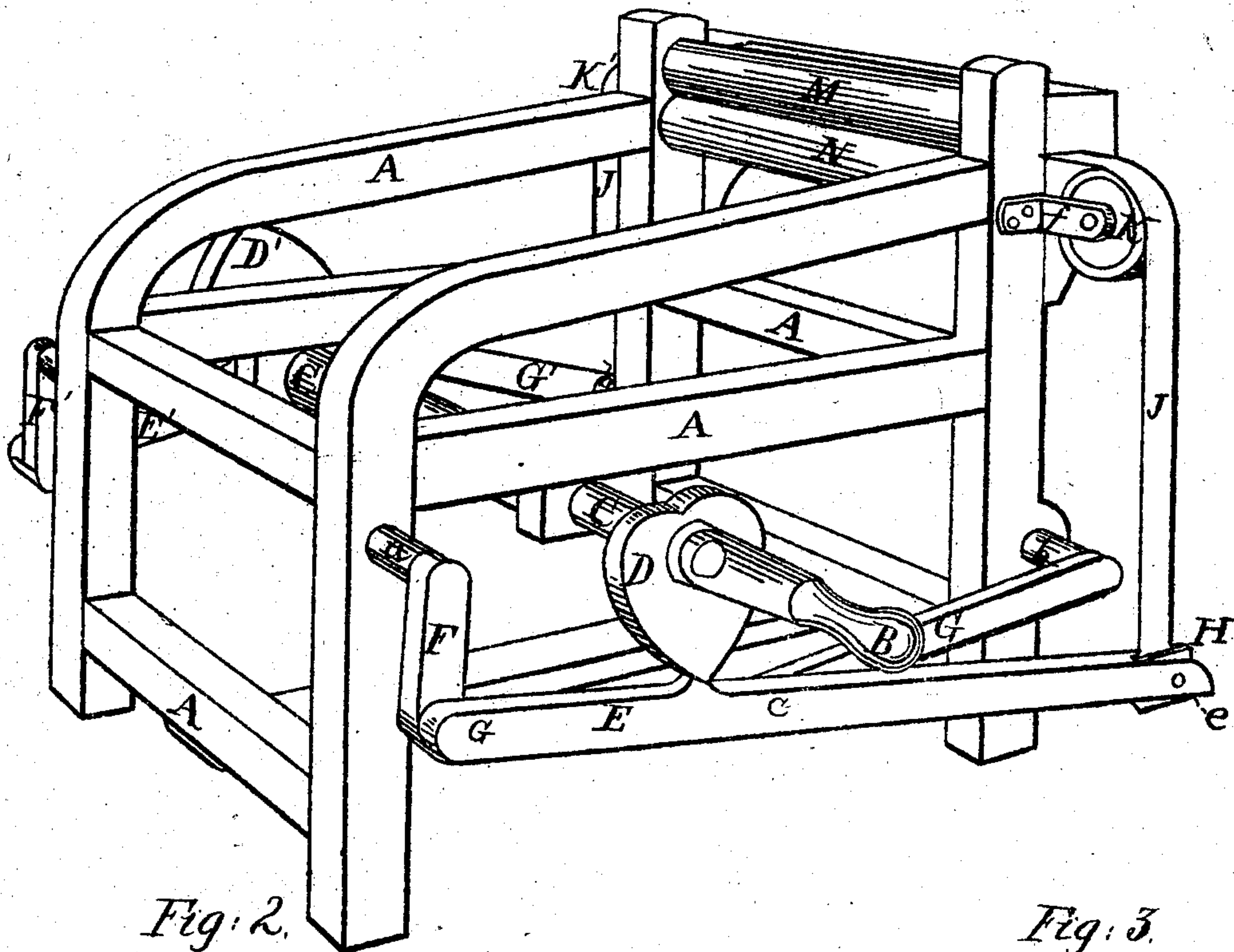


Fig. 2.

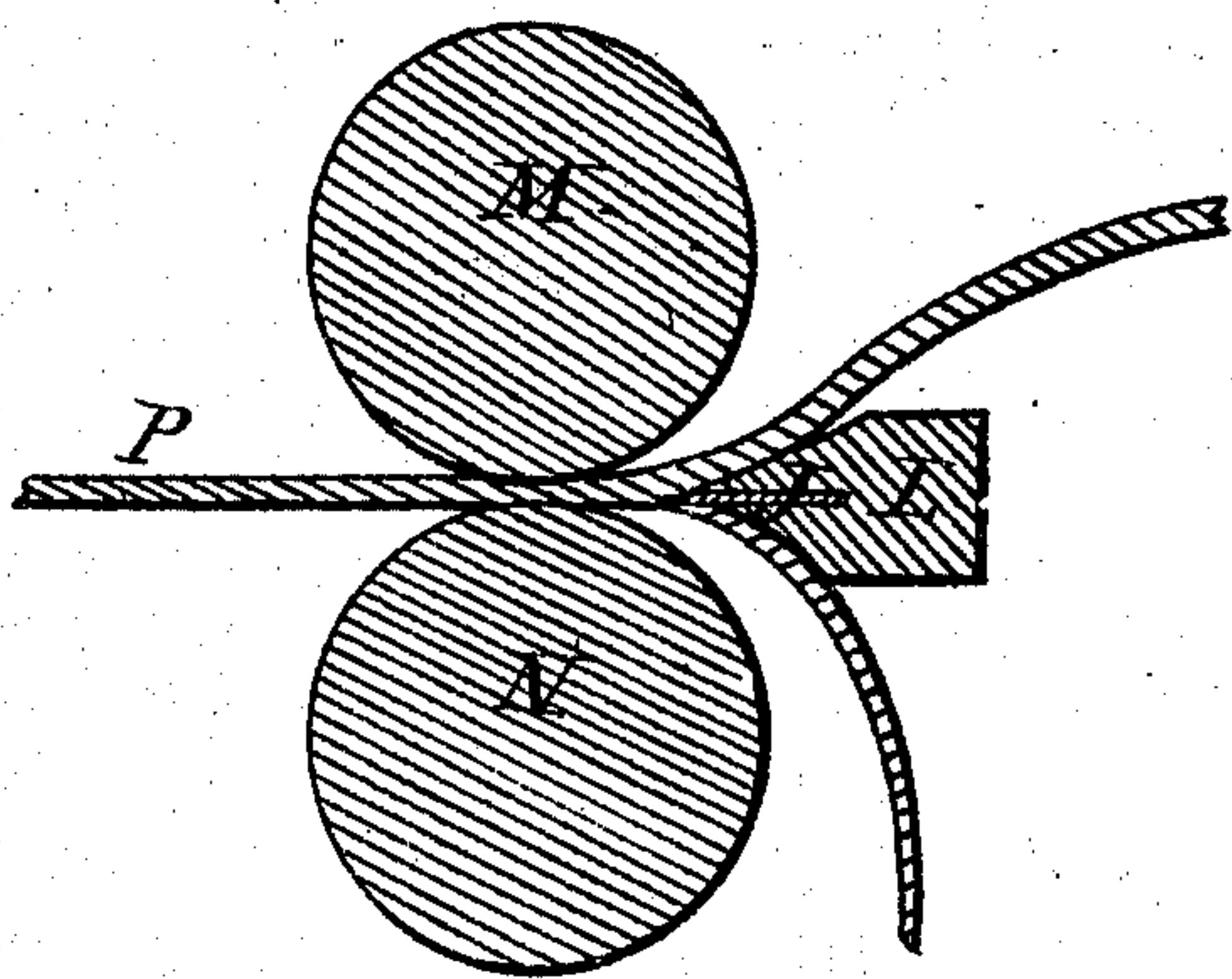
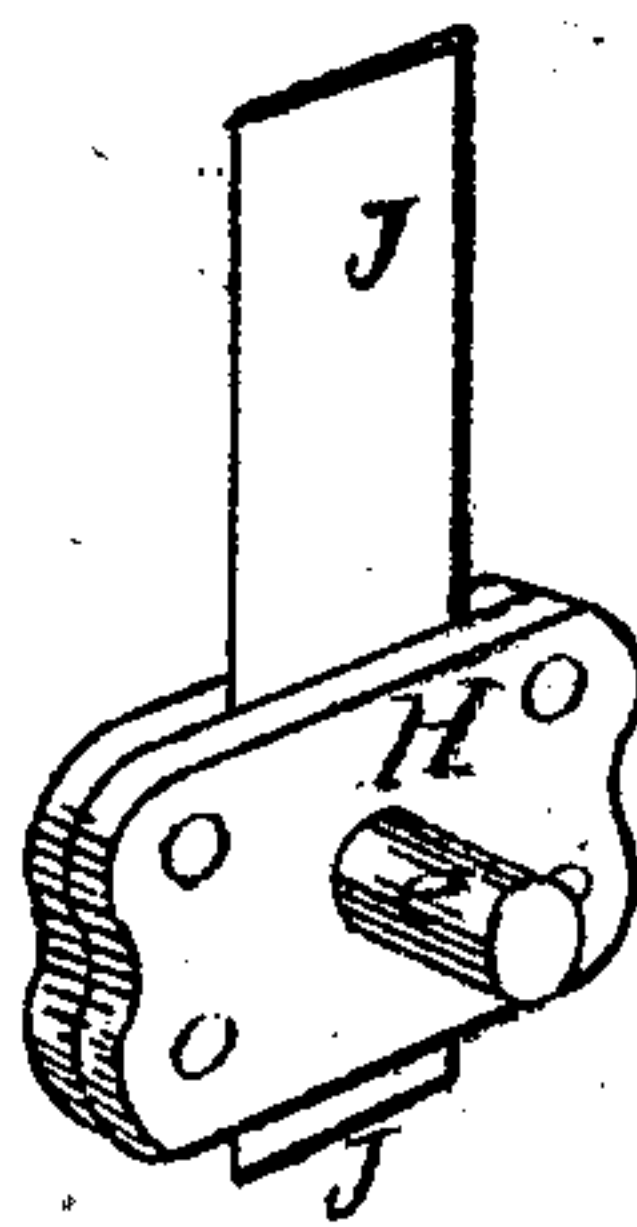


Fig. 3.



Witnesses:
William C. Cleveland
Edw. S. Morse

Inventors
Abbott & Marden
By their Attorney
Chas. F. Farnsbery

United States Patent Office.

JOHN H. ABBOTT, OF MALDEN, AND JEREMIAH A. MARDEN, OF BOSTON, MASSACHUSETTS, ASSIGNORS TO JOHN H. ABBOTT AND CHARLES E. ABBOTT.

Letters Patent No. 75,823, dated March 24, 1868.

IMPROVED LEATHER-SPLITTING MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, JOHN H. ABBOTT, of Malden, Massachusetts, and JEREMIAH A. MARDEN, of the city of Boston, Massachusetts, have invented a new and improved Machine for Splitting Leather; and we do hereby declare the following to be a full and correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the machine complete.

Figure 2 is a vertical section of the feed-rollers and knife; and

Figure 3 is a perspective view of the screw-clamp for holding the ends of the knife.

The same part is marked by the same letter of reference wherever it occurs.

This invention consists in the peculiar mode of attaching and operating the splitting-knife, by which the tension of the knife is preserved, and a long reciprocating stroke is obtained.

To enable others to make and use our improved leather-splitting machine, we will proceed to describe more particularly its construction and operation, referring to the drawings, on which A marks the frame of the machine; B, a crank on the end of the main shaft, indicating the point of application of the driving-power; C, the main shaft, hung in journal-boxes attached to the frame. On either end of this shaft is a heart-shaped cam, D D', the apexes of which are set in opposite directions. The faces of these cams play in contact with the levers E E', which operate the splitting-knife. The lever E is pivoted at *d* to the link F, which is pivoted to the end of the stud *a*, projecting from the side of the frame. It is also pivoted to the rod G, which is pivoted to the end of stud *b*, projecting from the frame. The lever E' is hung, in like manner, to the opposite side of the machine. The object of hanging these levers by a parallel motion is to cause their free ends to rise and fall in a straight vertical line, instead of describing the arc of a circle.

To the free ends of levers E E' are attached the ends of the knife J, held in a screw-clamp, H, (see fig. 3.) There is a slot in either end of the knife J, through which passes the pin *e* of the clamp, which, projecting on either side of the clamp, forms its journals, which are received into notches in the lower side of the ends of the levers. A deep mortise in the ends of the levers receives the clamp H, which is allowed sufficient play to keep the knife in line. The plates forming the clamp hold the knife between them, and are held together by screws. These being loosened, the tension of the knife can be regulated at will, and held at any desired amount by tightening the screws, the slot in the knife-ends allowing of the requisite movement of the knife. The knife, which is formed of a long, thin strip of flexible steel plate, passes over rollers K K', attached to the frame by brackets *f*. It works in a slit in a long guide, L, seen in cross-section in fig. 2.

Rollers M N, driven in any suitable manner, receive between them and impel the leather P, to be operated upon, and present it for the action of the knife. We arrange the throw of the levers E E' so as to give to the knife a stroke equal in length to the length of the feed-rollers M N.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. Operating the knife of a leather-splitting machine by levers driven by cams, substantially in the manner set forth.
2. The clamp H, constructed and operating as described, to hold the end of the knife and assist the adjustment of its tension, as specified.
3. The combination and arrangement of the cams D D', levers E E', clamp H, and knife J, in the manner and for the purpose described.

The above specification of our said invention signed and witnessed at Boston, this 19th day of December, A. D. 1867.

JOHN H. ABBOTT,
JEREMIAH A. MARDEN.

Witnesses:

CHARLES E. ABBOTT,
CHAS. F. STANSBURY.