

(No Model.)

E. JERAULD, Jr.
THREAD CUTTER AND HOLDER.

No. 293,254.

Patented Feb. 12, 1884.

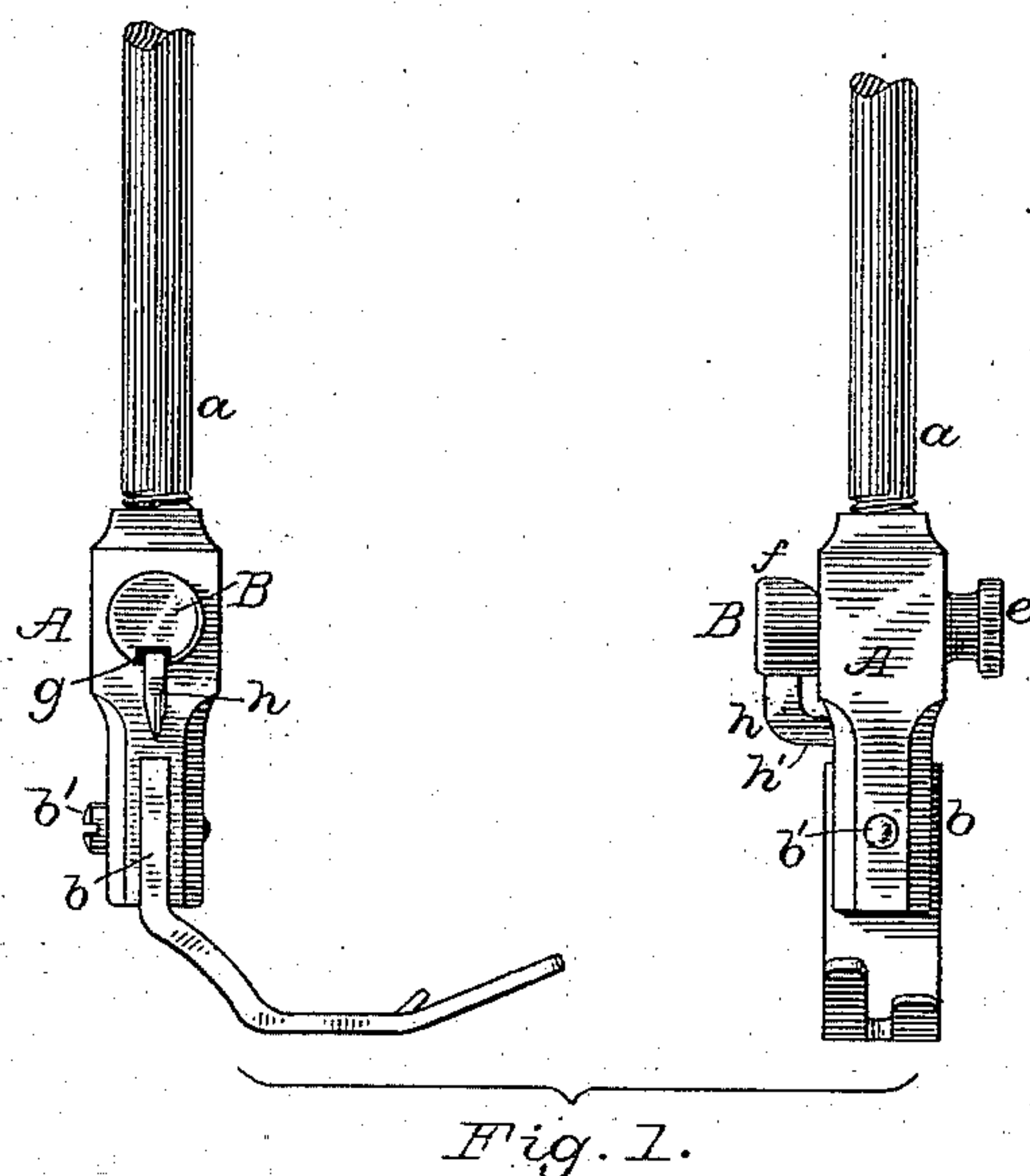


Fig. 1.

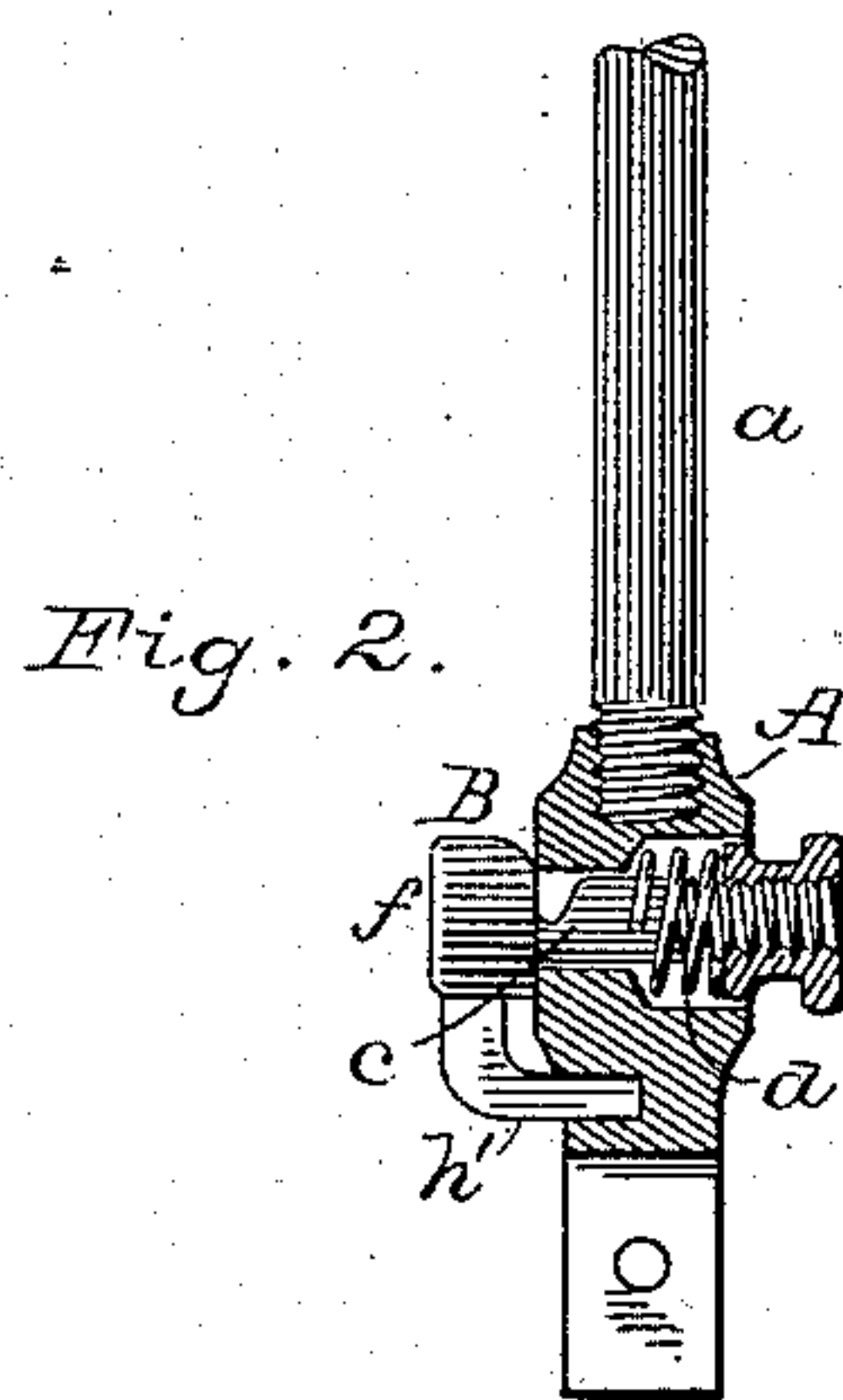
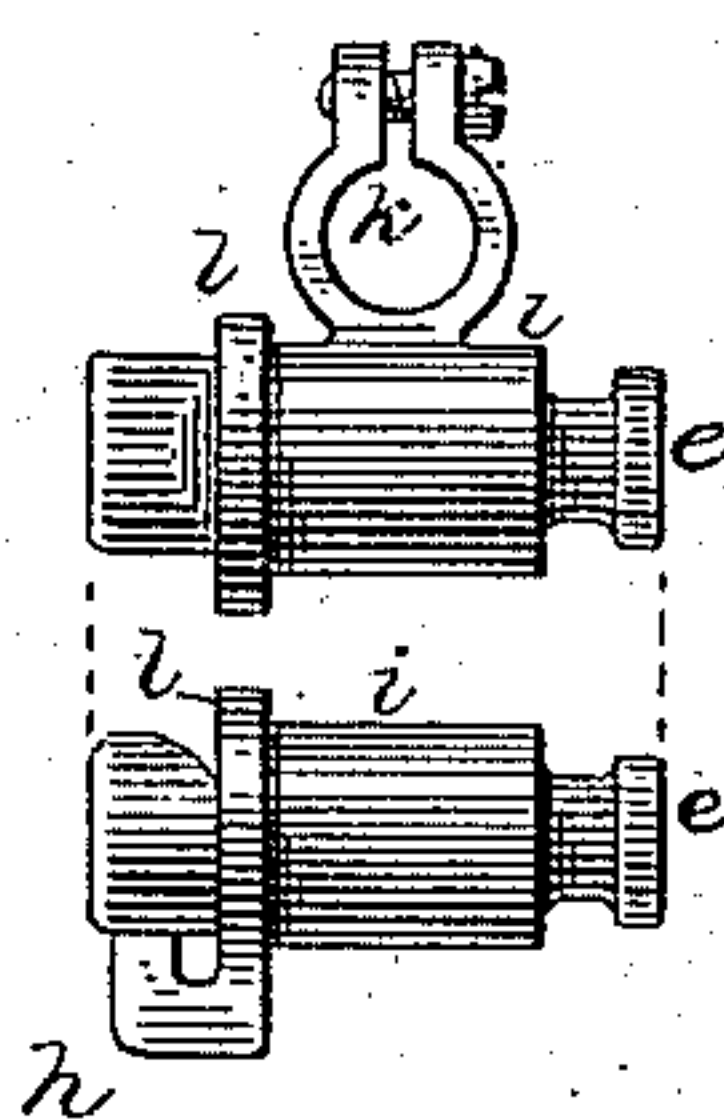


Fig. 2.

Fig. 3.



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EDWIN JERAULD, JR., OF BRISTOL, RHODE ISLAND.

THREAD CUTTER AND HOLDER.

SPECIFICATION forming part of Letters Patent No. 293,254, dated February 12, 1884.

Application filed September 10, 1883. (No model.)

To all whom it may concern:

Be it known that I, EDWIN JERAULD, Jr., of the town and county of Bristol, in the State of Rhode Island, have invented certain new and useful Improvements in Thread Cutters and Holders for Use on Sewing-Machines; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part thereof, is a clear, true, and complete description of the several features of my invention.

The desirability of employing a thread-cutting device upon a sewing-machine has long been recognized, and a variety of such have heretofore been devised, and in some cases they have been so constructed as to also serve as holders for the ends of an upper and a lower thread preparatory to stitching. So far as my knowledge extends, such combined cutting and holding devices have been enabled to serve as thread-holders, because of the presence of a V-shaped spring or a V-shaped slot in a cutter-plate, or a V-shaped slot afforded between two coincidently-beveled disks compressed together by a spring, or a flat spring between which and an adjacent surface the thread is bitten.

In tension devices as heretofore constructed spring-plungers have been employed for so controlling the tension of the running thread that the stitching mechanism may properly operate, and such devices are or may be employed in connection with thread-holders which are relied upon for an entirely different purpose; and it is to be understood that my invention in no manner relates to tension devices, but is limited to that class of contrivances which serve as substitutes for the thumb and finger during the initial movement of the needle, for holding the ends of thread preparatory to stitching, and which do not and cannot operate as tension devices. In my thread-holder I for the first time employ a spring-plunger having a head, between which and a coincident surface the thread is held, and from which it can be very easily released, as by the movement of the fabric incident to the ordinary operation of the feed-motion in sewing, and which is less liable to unduly hold a kinked thread than any other of which I have knowledge; and I have also for the first time provided for readily graduating the clamping force of the holder, so that it will compress a coarse or a heavy thread no

tighter than a fine one. With my holder I employ a thread-cutter which may be variously arranged, although I have so combined it with the plunger of the thread-holder that its rear edge or back serves as a guide for preventing the rotation of the plunger in its seat.

To more particularly describe my invention, I will refer to the accompanying drawings, in which Figure 1 represents in two views a presser foot and bar to which my cutter and holder are applied as a fixture on the machine. Fig. 2 is a vertical section of my device as applied in Fig. 1. Fig. 3 is a view of my cutter and holder constructed for use as an attachment to a presser-foot bar.

When applied as a fixture on a machine, I prefer to employ an enlarged base, A, drilled and tapped at its upper end to receive the bar *a*, and slotted at its lower end to receive the shank *b* of the presser-foot, which is secured by the clamp-screw *b'*. Laterally through the base a deeply-countersunk hole is drilled, so as to receive the shank *c* of the holder B. The thread-compressing spiral spring *d* encircles the shank, and has its seat at the inner end of the countersunk portion of the hole. The outer end of holder-shank *c* is screw-threaded to receive the adjusting thumb-nut *e*, whereby the spring may be readily set at any desired tension. The head *f* of the holder is beveled on its upper side toward the shank, but is otherwise squared up next its shank, so as to press evenly and squarely against the coincident surface of the base A. The under side of the head is longitudinally slotted, as at *g*, for the reception of the back or top of the knife *h*, which thus serves as a guide for the spring-plunger, and by preventing it from rotating in its seat keeps the beveled surface of the head always in its right position for the ready reception of the thread which is to be held. The knife *h*, or thread-cutter, is firmly inserted by its shank into a hole in the base below the holder, and its cutting-edge is at its lower side, as at *h'*.

In use the two threads to be cut and held are preferably carried upward from the work-plate over the holder into the bite at its beveled edge, thence around downward and to the front, thus drawing the threads upward across the cutting-edge and severing them; or the threads may be carried up at the rear of the holder, thence forward, downward, and back

over the cutting-edge. The distance of the holder from the presser-foot is ample to secure a desirable length of the thread ends. The strength of the spring may be readily adjusted
 5 by the thumb-nut, so that coarse thread need be held no tighter than the finest, thereby providing for holding equally well all kinds of thread during the cutting operation, and also for as ready release for one kind of thread as
 10 another.

It is obvious that the thread-holder can be used to advantage regardless of the character of the cutter employed therewith. When constructed for use as an attachment, the holder-
 15 shank is housed in a tube, *i*, Fig. 3, and said tube is provided with a bow spring-clamp, *k*, or other well-known device, by which it may be readily applied to and removed from a presser-foot bar. At one end of said tube is a collar, *l*, which af-
 20 fords an abutting-surface for the inner face of the head, whereby the thread is held, as before described, and the knife *h* may be an integral projecting part of said collar or otherwise secured thereto.

25 The adjusting-nut *e* here used is as before described, and while I deem this latter important for the best results, I do not limit myself

thereto, as a non-adjustable spring and plunger, as described, will serve a good purpose.

Having thus described my invention, I claim 30 as new and desire to secure by Letters Patent—

1. The combination, with the presser-foot bar and mounted thereon, of the thread-cutter and the spring-plunger provided with a head, and serving as a thread-holder for compressing 35 thread between one side of said head and a coincident surface, substantially as described.

2. The combination of the spring-plunger, serving with an abutting-surface as a thread- 40 holder, and the thread-cutter, serving also as a guide for said plunger, substantially as described.

3. The combination of the thread-cutter and the thread-holder having the thread-com- 45 pressing spring, and provided with means for adjusting the power of said spring, substantially as described, whereby said holder can be adjusted to compress a coarse thread no tighter than a fine one, and to hold both equally well during the use of the cutter, as set forth.

EDWIN JERAULD, JR.

Witnesses:

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