

S. S. Turner,
Splitting Leather

N^o 30553.

Patented Oct. 30, 1860.

Fig. 4.

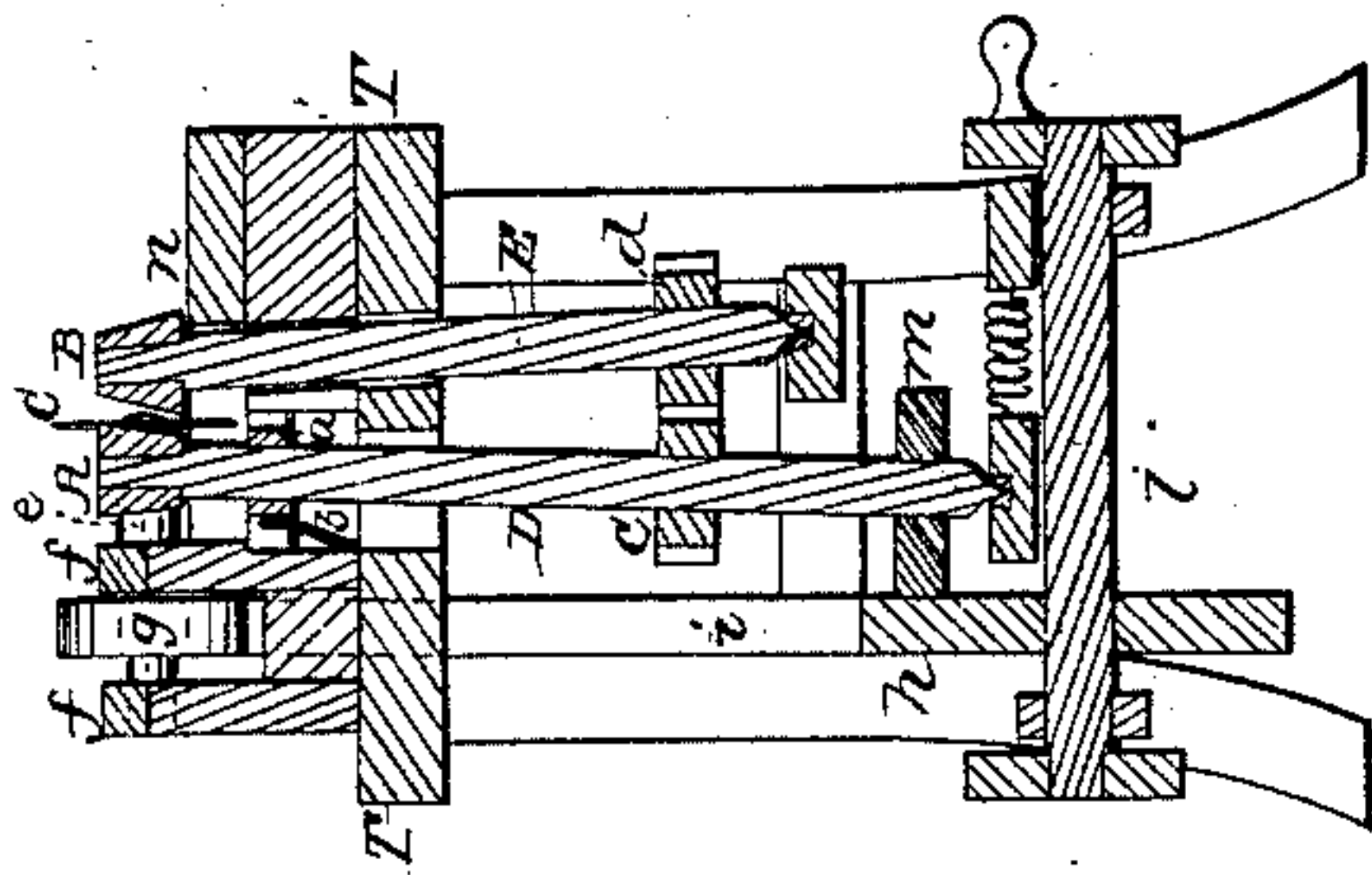


Fig. 3.

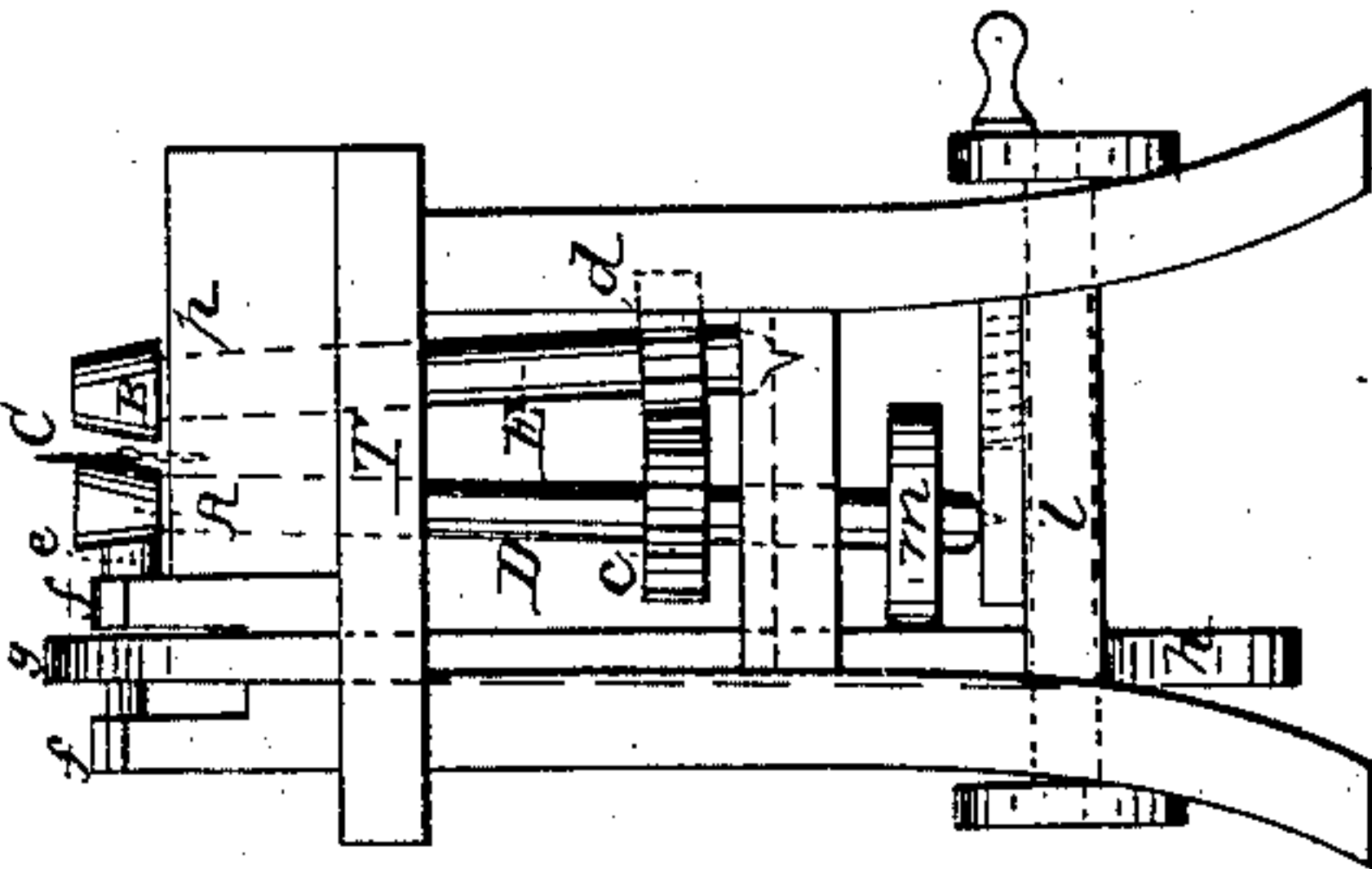


Fig. 1.

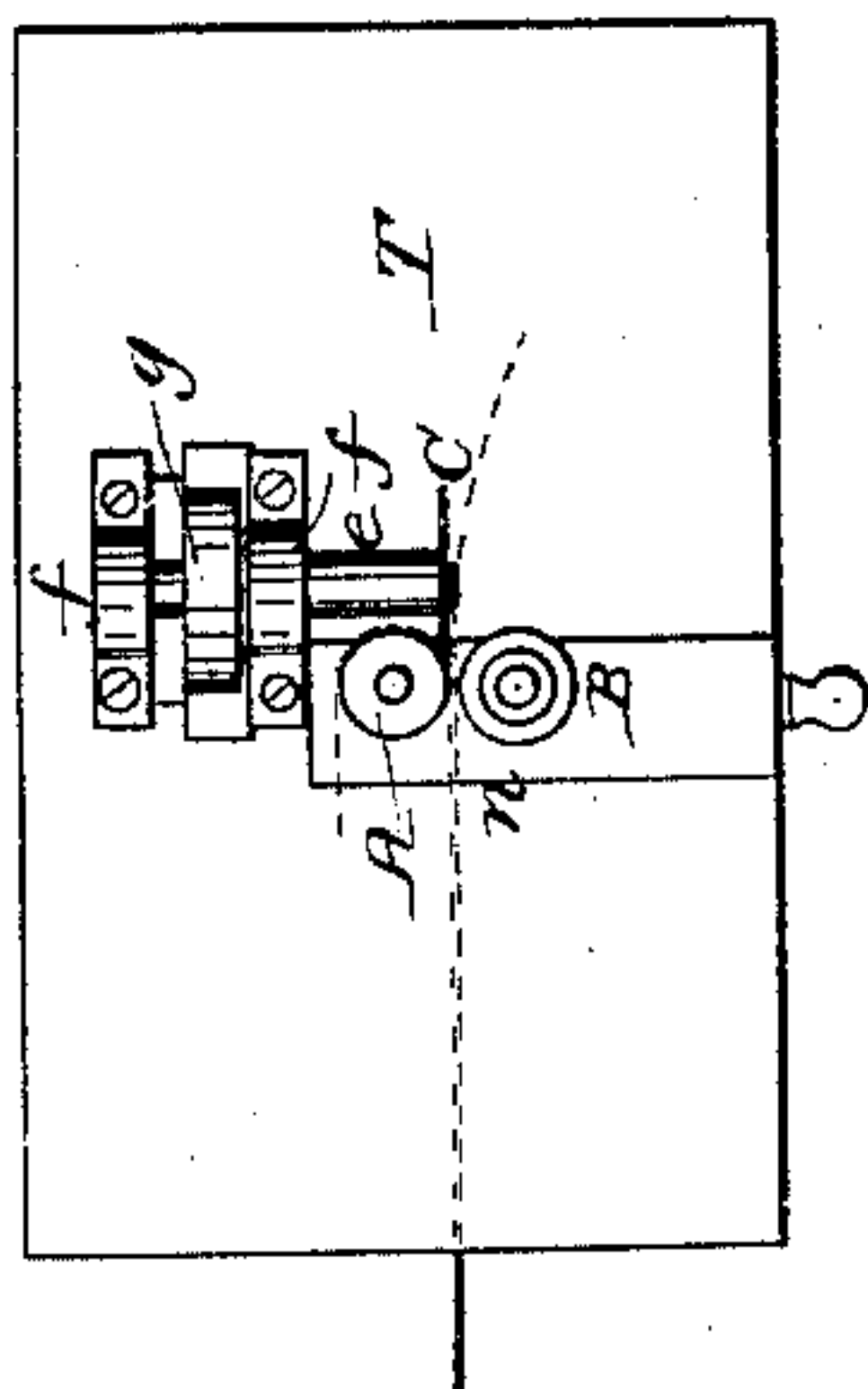
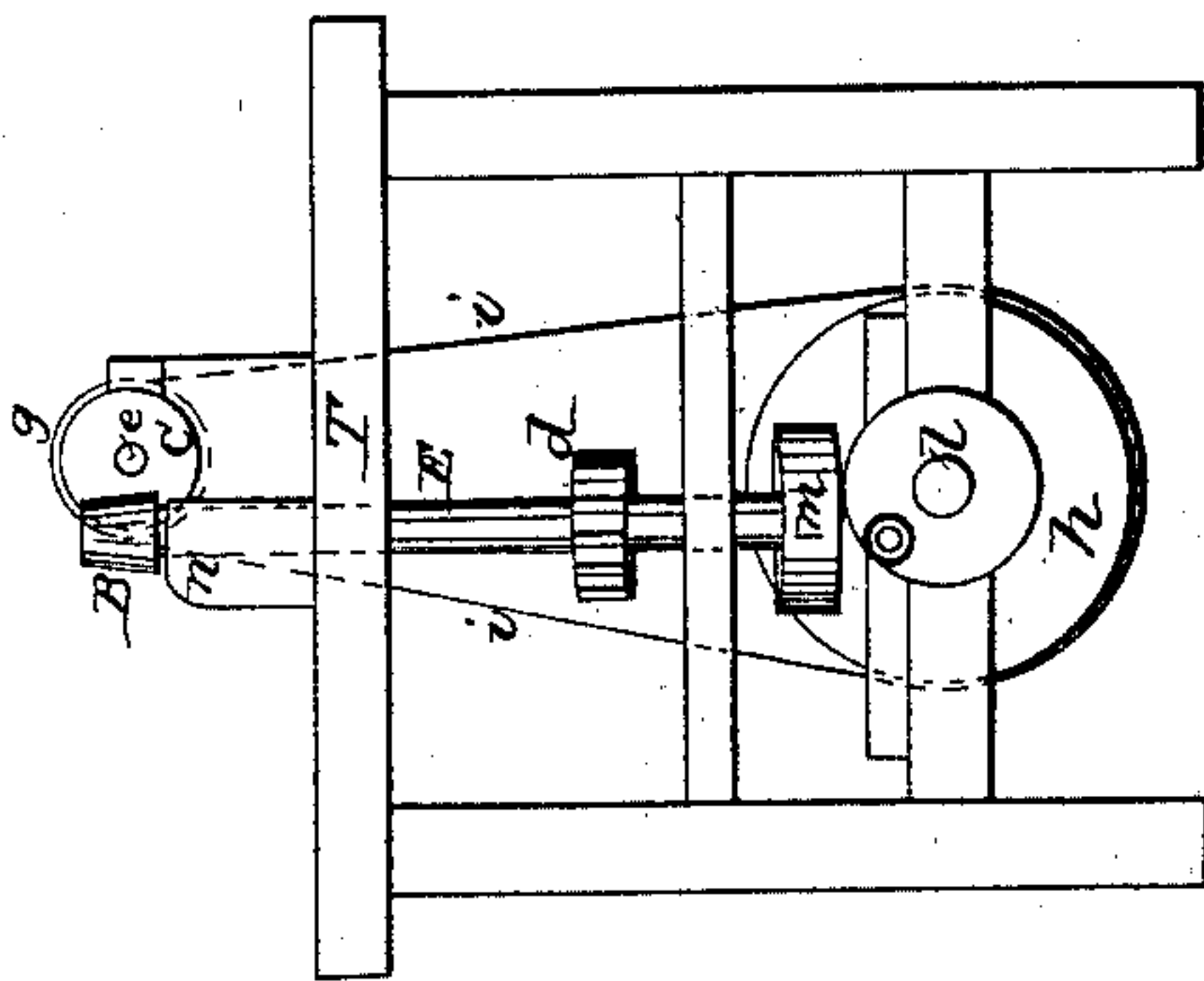


Fig. 2.



Witnesses;
R. H. Lundy
J. R. Halsey Jr

Inventor;
Samuel S. Turner

UNITED STATES PATENT OFFICE.

SIDNEY S. TURNER, OF WESTBORO, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND
OTIS F. VINTON, OF SAME PLACE.

MACHINE FOR SPLITTING LEATHER.

Specification of Letters Patent No. 30,553, dated October 30, 1860.

To all whom it may concern:

Be it known that I, SIDNEY S. TURNER, of Westboro, in the county of Worcester and State of Massachusetts, have invented
5 an Improved Machine for Splitting Leather into Welts or for Skiving Boot or Shoe Counters; and I do hereby declare the same to be fully described and represented in the following specification and the accompany-
10 ing drawings, of which—

Figure 1, is a top view; Fig. 2, a side elevation; Fig. 3, an end elevation; Fig. 4, a transverse section of such machine, the plane of section of the latter figure being
15 taken through the axes of the feed rollers.

In splitting or making welts by means of cylindrical feed rollers and a rotary knife, a difficulty arises in readily varying the inclination of the feed rollers to the plane of
20 the knife, particularly when it may be desirable to adapt the mechanism to leather of any thickness such as is usually split into welts. If after the machine has been arranged for splitting leather of a given thick-
25 ness, it should be required to change the angular inclination of the bite of the rollers with respect to the plane of the rotary cutting knife in order to adapt the machine to make welts from a piece of leather of a
30 different thickness, it will be necessary to either change the position of the shaft of the knife or that of each of the rollers, a change which cannot be made without, generally speaking, much inconvenience or neces-
35 sitating much complication of mechanism.

In carrying out my invention, I do not use cylindrical feed rollers in connection with a rotary cutter or knife, but I combine
40 with a rotary circular knife, two conical feed rollers so arranged with respect to each other that the larger base of each shall be in or about in the plane of the smaller base of the other, as shown in the drawings, in which A, and B, exhibit such conical rollers,
45 and C, a circular knife placed in front of their bite. The base of the permanent roller B, I arrange as near to the cutting edge of the knife as may be necessary for obtaining the desired thickness of the thinner edge of
50 the welt. The two rollers are to be of the same size and they are to be fixed respectively on the upper parts of two shafts D, E. The shaft E, (which is that of the permanent roller B,) is movable only on its axis,
55 the other shaft having its upper bearing a,

supported against a spring *b*, in such manner as to allow the roller, A, to be forced away from the roller, B, the two shafts being connected by gears, *c*, *d*.

The rotary cutter or circular knife C, is
60 fixed on one end of a horizontal shaft, *e*, that is sustained in boxes *f*, *f*, and bears a pulley, *g*, about which and a driving pulley *h*, an endless belt, *i*, works. The wheel *h*, is carried by a driving shaft *l*, and bears
65 against the periphery of a wheel *m*, fixed on the shaft D. In lieu of such means of producing rotary motion of the shaft D, from the driving shaft, *l*, the two shafts may be connected by bevel gears.
70

The two feed rollers are rotated simultaneously so as to feed a strip of leather against the cutting edge of the knife when such strip is introduced into the bite of the
75 rollers. Their peculiar arrangement with respect to each other and the cutting knife causes the said strip to be presented in an inclined direction with respect to the knife and the rest, *n*, on which the leather is supported while being driven forward. The
80 welt as it is separated from the strip will pass off against or alongside of one side of the knife while the balance of the strip will escape by the opposite face of the knife and between the roller and the shaft *e*, as shown
85 in Fig. 1, the shaft by its arrangement being caused to aid the roller in the discharge of such balance. The operative mechanism above described is to be properly supported
90 by a frame or table, T.

If at any time, it may be desirable to adapt the machine to cut a welt of any given wedged form in transverse section we have
95 only to remove the conical feed rollers from their shaft and substitute for them others of a different and proper taper, thus saving the necessity of disturbing the vertical positions of the shafts of the feed rollers and cutter.

A rotary cutter has a great advantage
100 over a stationary one as it cuts the leather quicker and smoother and is not apt to leave it in ridges, and furthermore the employment of conical feed rollers, in manner described, in connection with a cutting knife,
105 renders the machine not only more simple and less costly in construction than one having cylindrical feed rollers with means of adjusting the inclination of their bite with respect to the cutter, but gives to it advan-
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tages in operation such as render it much more valuable.

I do not claim cylindrical feed rollers combined with either a stationary or an adjustable knife; nor do I claim a cylindrical feed roller and a spring presser combined with either a stationary or an adjustable knife and for the purpose of splitting leather into welts, nor do I claim a stationary knife and two conical feed rollers, the latter being so arranged as to present the end of the leather diagonally to the knife.

I claim—

My improved welt splitting machine as constructed with a rotary circular knife, the shaft *e* thereof and conical feed rollers arranged with respect to each other and so as to operate therewith substantially as specified.

S. S. TURNER.

Witnesses:

R. H. EDDY,
F. P. HALE, Jr.