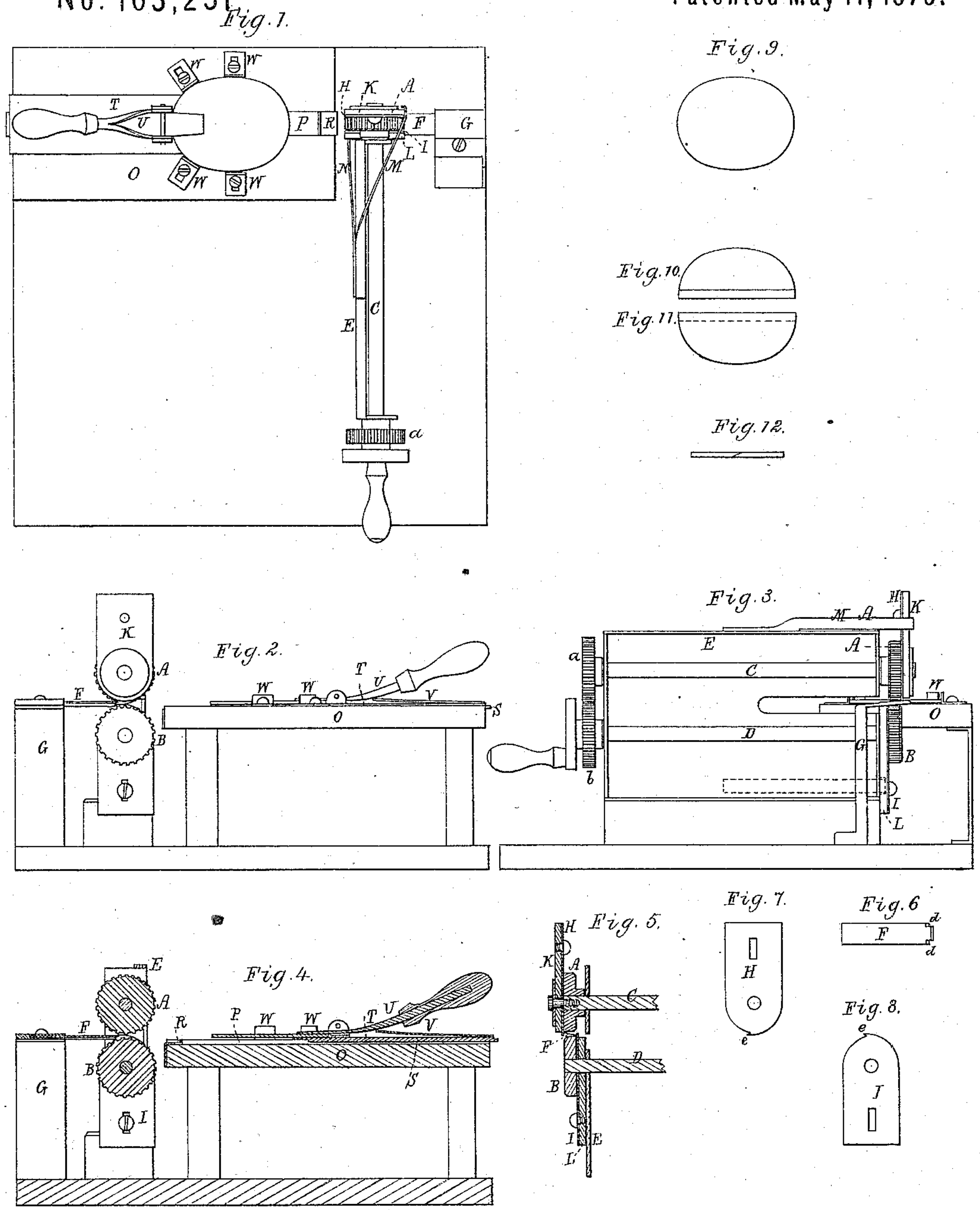
S. MOORE.

Machine for Dividing Counter or Heel Stiffener Blanks

No. 163,231. Patented May 11, 1875.



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UNITED STATES PATENT OFFICE.

STEPHEN MOORE, OF SOUTH SUDBURY, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND HOMER ROGERS, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR DIVIDING COUNTER OR HEEL-STIFFENER BLANKS.

Specification forming part of Letters Patent No. **163,231**, dated May 11, 1875; application filed March 15, 1875.

To all whom it may concern:

Be it known that I, STEPHEN MOORE, of South Sudbury, of the county of Middlesex and State of Massachusetts, have invented a new and useful Machine for Dividing Counter or Heel-Stiffener Blanks; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a side elevation, Fig. 3 a front view, and Fig 4 a longitudinal section, of it. Fig. 5 is a transverse section, taken through its feed-wheels and cutter. Fig. 6 is a top view of the cutter, and Figs. 7 and 8 are side views of the hooked plates for supporting the knife and gaging its cut.

This machine is to divide an elliptical or other proper shaped counter-blank along its middle or longer axis into two counters or heel stiffeners and scarf or bevel, each along the chord of its arc.

Fig. 9 is a top view of one of such blanks, and Figs. 10 and 11 exhibit it as separated into two counters, each scarfed along its chord. Fig. 12 is an end view, it showing the line of separation.

In dividing these blanks it is necessary that each should be cut along its central axis, and that the bevel should extend in opposite directions therefrom, and be of equal width throughout, as any variation therefrom will produce an irregularity in the size of the counters, which is very objectionable.

In machines used heretofore for dividing leather on a beveled line, for welts or similar uses, there has been no means adapted to make the bevel a definite width. In some of such machines one edge of the cutter is so attached to the shaft of the feed-roll that it adjusts itself to the yielding movement of the roll, but in splitting a hard material like leather board, especially when it is quite thin, nothing like an even bevel can be made; for in splitting leather board, as is often done, one-sixteenth of an inch thick on a bevel of one-half an inch wide, the edge of the cutter has to be so nearly parallel with the surface of the board that should the cutter spring or yield one-fiftieth of an inch vertically it would vary the width of the split counters one-sixth of an inch, or enough to spoil them for good work. These difficulties are obviated in my machine, which also provides means for conveying the blank or material to the feed rolls or rollers, and guiding it so as to divide it in in a straight path through its central axis.

My machine consists of two feed-rolls, A B, fixed upon parallel shafts C D, supported in and by a suitable frame, E. These shafts are geared together, as shown at *a b*, so as to run in opposite directions. One of them may or should be applied so as to yield, to allow for varying thickness of material when it does vary. On one side and partly between the rolls is the cutter F, which, at its rear end, is held by a standard, G, or any suitable support. Near its cutting-edge the cutter is formed with shoulders, as shown at *d d*, to enable it to be held by the hooks *e e* of two hooked plates or gages, H I, arranged, as shown, with said cutter and the feed-rolls, and fixed to plates or levers K L that pivot upon the shafts of the rollers, and are provided with springs M N to so act against them as to force the hooks *e e* up to and maintain them in engagement with the shoulders of the knife or cutter. The feed-rolls are each to be of the width of the scarf, the gage-plates being set up close against the opposite faces of the feed-rolls, as shown.

The arrangement of the cutter is such that one counter must pass over and the other under it, the blank being divided by such knife, so as to cause each counter to be scarfed or beveled along its chord, the scarf or bevel being of even width throughout, however the thickness of the material may vary.

In order to properly guide the blank to the knife I make use of a table or platform, O, having a groove, P, extending through it lengthwise, and provided near its front end with a stop or shoulder, R. A tongue, S, extending down from a slide or jaw-plate, T, enters the said groove. There is pivoted to the slide plate a jawed lever, U, provided with a spring, V, to force its longer arm upward. To the table there is fixed a set or a series of abutments or gages, W, which may be adjustable thereon. Between and against them the

blank to be divided is to be arranged, it being placed there either by hand or by a suitable feeding mechanism. The stop R, with the inner end of the tongue S, serves to prevent the jaws from being drawn between the feed-rollers. The blank having been duly placed on the table and seized by the jaws, is to be pressed forward into the bite of the feed-rollers by a person taking hold of the handle of the jaw-lever. On being seized by the rolls it will be forced by them against the cutter, and drawn between and against the gages and split or cut lengthwise. The rolls on the tongue S bringing up against the stop R will continue to advance the blank and will draw it out from between the jaws.

I claim—

1. The combination of the feed-rollers A B, the knife F, and the two gage-plates H I, arranged relative to the feed-rolls as described.

2. The knife or cutter F, provided with the shoulders *d d*, in combination with the gage-plates H I, provided with the hooks *e e*, to engage with the said shoulders, as set forth.

3. The hooked gage-plates H I, pivoted to the shafts of the feed-rolls and provided with springs M N to hold them in connection with the knife.

4. The combination of the gages W and the slide-jaws T U, applied to the table, as set forth.

5. The combination of the feed-rolls A B, provided with mechanism for operating them, the knife F, the gage-plates H I, the table O, the abutments or gages W, the slide-plate T, and the jawed lever U, all being arranged substantially in manner and for the purpose specified.

STEPHEN MOORE.

Witnesses:

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J. R. SNOW.