No. 859,444. PATENTED JULY 9, 1907.

A. FINN.

ROUNDING AND CHANNELING MACHINE.

APPLICATION FILED DEC. 22, 1906.

2 SHEETS—SHEET 1.

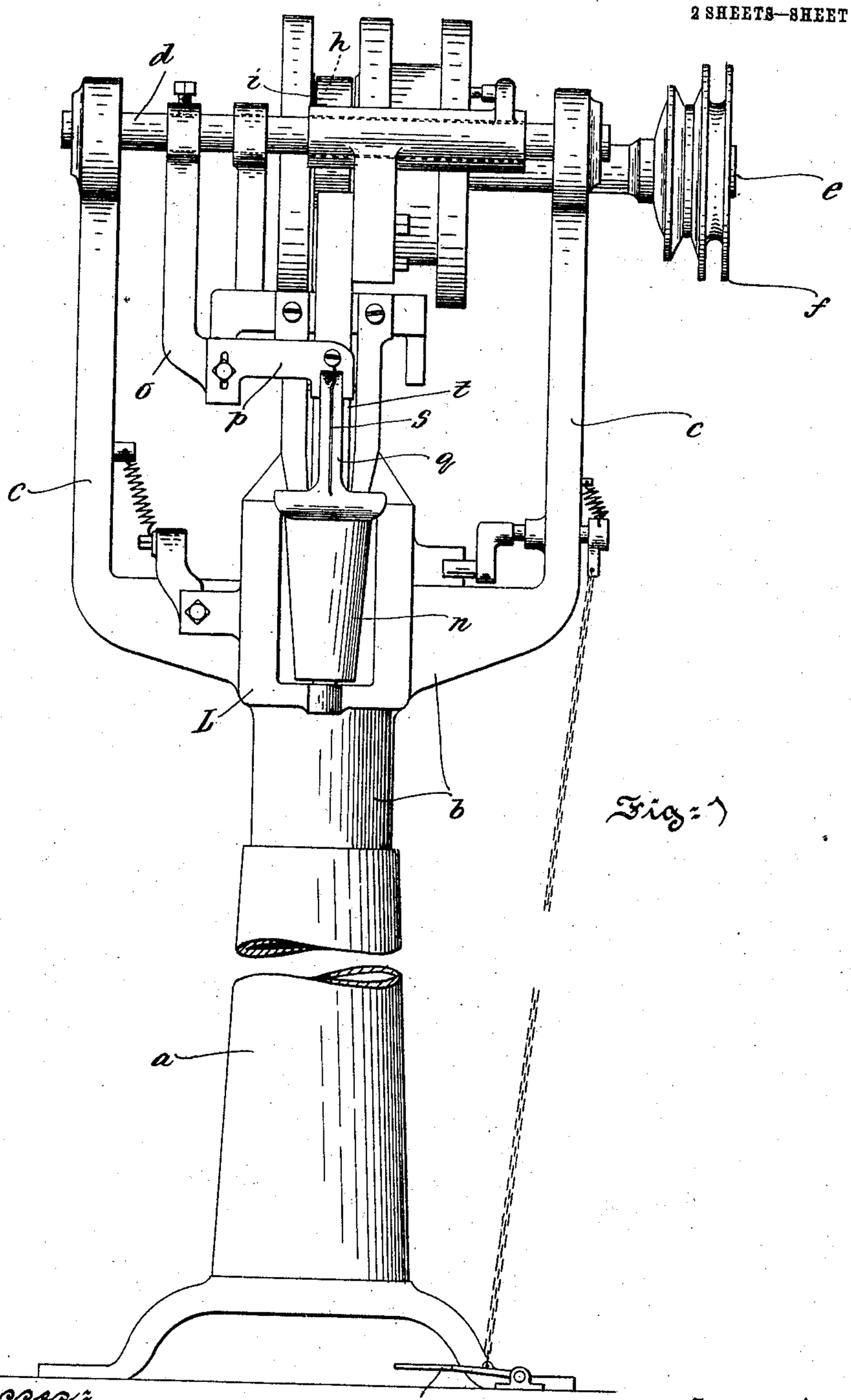

Fig. 1.

Witnesses:

Herman Philipp

Herman Philipp Phillips

Inventor

Austin Finn.

By Wesley E. Crane Jr.

Atty's.

THE NORRIS PETERS CO., WASHINGTON, D. C.

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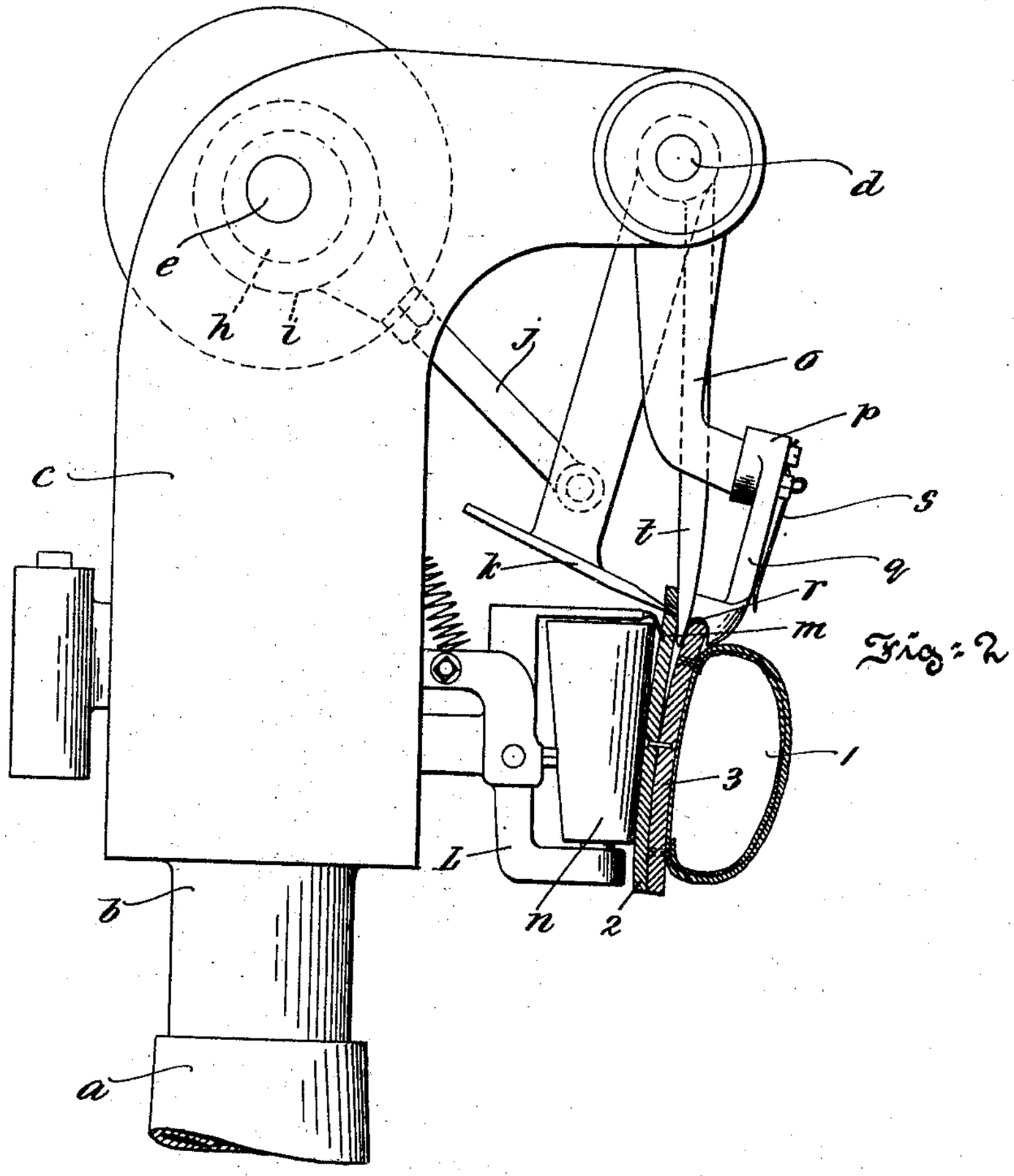

Fig: 2

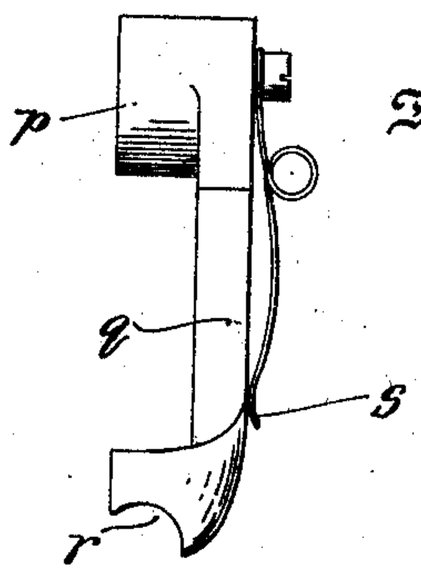

Fig: 4

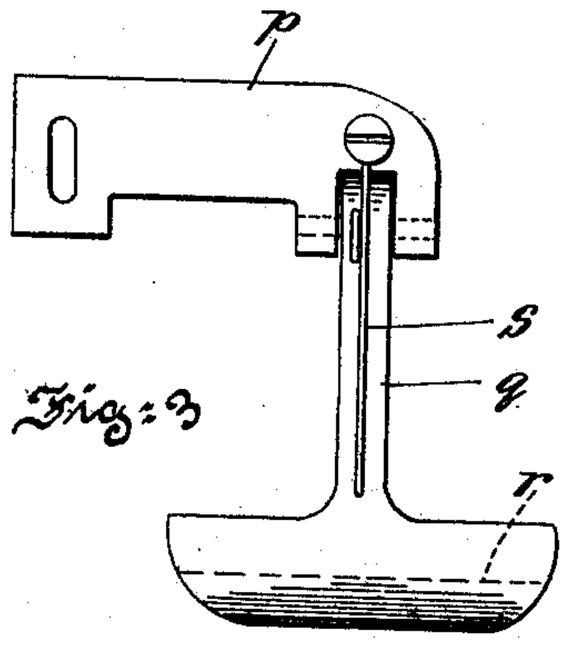

Fig: 3

Witnesses:

Duncan Shepard & Phillips

Inventor.

Austin Finn.

By

Utley E. Crane Jr.

Att'y.

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

AUSTIN FINN, OF PHILADELPHIA, PENNSYLVANIA.

ROUNDING AND CHANNELING MACHINE.

No. 859,444. Specification of Letters Patent. Patented July 9, 1907.

Application filed December 22, 1906. Serial No. 349,058.

To all whom it may concern:

Be it known that I, AUSTIN FINN, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Rounding and Channeling Machines, of which the following is a specification.

This invention relates to the class of machinery known in the boot and shoe trade, as a rounding and channeling machine, wherein after the outsole has been laid by a sole laying machine, or by hand, this machine rounds and trims off the surplus outsole stock, at the same time cutting the channel in the outsole to facilitate sewing of the same to the welt.

The principal objects of the present invention are to overcome certain disadvantageous features of the present machines, to provide a machine that shall be much simpler in construction than those now upon the market and consequently cheaper to manufacture; to provide means for guiding the shoe during the rounding and channeling process and to provide means for protecting the welt from being cut or marred during the process of trimming off the surplus outsole.

To these and other ends hereinafter set forth the invention comprises the improvements to be presently described and finally claimed.

The nature and characteristic features of the invention will be more fully understood from the following description taken in connection with the accompanying drawings forming part hereof, and in which

Figure 1, is a front elevational view of a machine embodying the invention. Fig. 2, is a side elevational view of the upper portion thereof and illustrating a shoe, in cross-section, in a position to be rounded and channeled, and Figs. 3, and 4, are respectively a front and side elevational view of the guide, hereinafter referred to.

Referring to the drawings, *a*, is a column having a foot to stand on the floor and is provided with a head *b*, terminating in a pair of arms *c*, the outer ends of which support a fixed shaft *d*. Suitably journaled in the arms *c*, is the main driving shaft *e*, having an eccentric *h*, eccentric strap *i*, and a driving pulley *f*.

j, is a rod connecting the eccentric members with an arm pivotally connected to the fixed shaft *d*, and provided with a knife or cutter *k*, and adapted through the instrumentality of the aforesaid parts to be reciprocated back and forth.

Carried by, and movable in respect to the head *b*, is a forked member L, equipped with a channeling knife *m*, and having journaled between its forks, a conical roller *n*, that acts as a support for the shoe.

Fixed to and depending from the shaft *e*, is a bracket *o*, having adjustably mounted at its base a pivoted yielding grooved guide comprising a support *p*, the bifurcated end of which pivotally supports an inverted generally T-shaped member *q*, the lateral cross piece or foot of which is cut away or grooved as at *r*.

s, is a spring adapted to normally press the member *q*, inwardly, and against the protecting plate *t*. Thus the welt edge of a shoe may be placed against the plate *t*, and within the groove *r*, and during the trimming operation upon the sole edge, be safe from cutting, marring or notching.

The operation of the above described machine will now be described. The operator first places the shoe 1, the outsole 2, of which has been applied to the welt 3, in any preferred manner, in proper position as shown in Fig. 2. In this connection the channeling knife and roller *n*, are first moved backward by the operator, depressing the treadle *u*, and placing the welt 3, of the shoe within the groove *r*, of the foot of the guide, at the same time seeing that the plate *t*, is between the welt and outsole 2, as shown in Fig. 2. The treadle is then released and the conical roller permitted to pass forward and form a support for the shoe, as shown. Power is then applied to the main driving shaft and the cutter or knife *k*, being reciprocated back and forth by the eccentric, cuts or trims the surplus outsole as the shoe is guided by the operator through the grooved guide. During this operation the outsole is channeled by the knife *m*, and by reason of the plate *t*, the welt of the shoe is not cut or marred and this, as will be readily understood, is quite important in shoe repairing for which this machine is particularly adapted, although the invention is not meant to be confined thereto.

By the use of the above language I do not limit my invention further than the prior state of the art may require, but

Having thus described the nature and objects of my invention, what I claim as new and desire to secure by Letters Patent is

1. In a machine of the class described the combination of a column carrying a head terminating in a pair of arms or side brackets, a main driving shaft journaled in said brackets, a shoe support and a channeling knife carried by the said head, a fixed shaft carried by the said brackets, a reciprocating cutter having pivotal engagement with the last mentioned shaft and having connection with an eccentric upon the first mentioned shaft, a depending bracket secured to the fixed shaft carrying a spring controlled and grooved guide, and a vertically arranged plate interposed between the said guide and the cutting edge of the reciprocating knife.

2. In a machine of the class described a reciprocating cutter, a vertically arranged protecting plate, a shoe support carrying a channeling knife and a fixed bracket equipped with a pivoted yielding inverted T-shaped guide the cross piece or foot of which is grooved.

3. In a machine of the class described a reciprocating cutter, a vertically arranged protecting plate, and a pivoted yielding guide having a foot grooved to accommodate the welt edge of a shoe.

4. A guide for rounding and channeling machines comprising a fixed and bifurcated support, an inverted gen-

erally T-shaped member pivotally secured to said support, said member being grooved along its cross piece or foot.

5. A guide for rounding and channeling machines comprising a fixed and bifurcated support, an inverted generally T-shaped member pivotally secured to said support, said member having a laterally extended and grooved foot.

6. A guide for rounding and channeling machines comprising a pivotal yielding member having a foot grooved to accommodate the welt edge of a shoe.

7. In a machine of the class described a reciprocating cutter, stationary means carrying a pivoted yielding guide grooved to accommodate the welt of a shoe and means between the said cutter and guide for protecting the welt of the shoe.

In testimony whereof I have hereunto signed my name in the presence of two witnesses.

AUSTIN FINN.

Witnesses:
UTLEY E. CRANE, Jr.,
GERTRUDE M. DOLPHIN.