

No. 640,597.

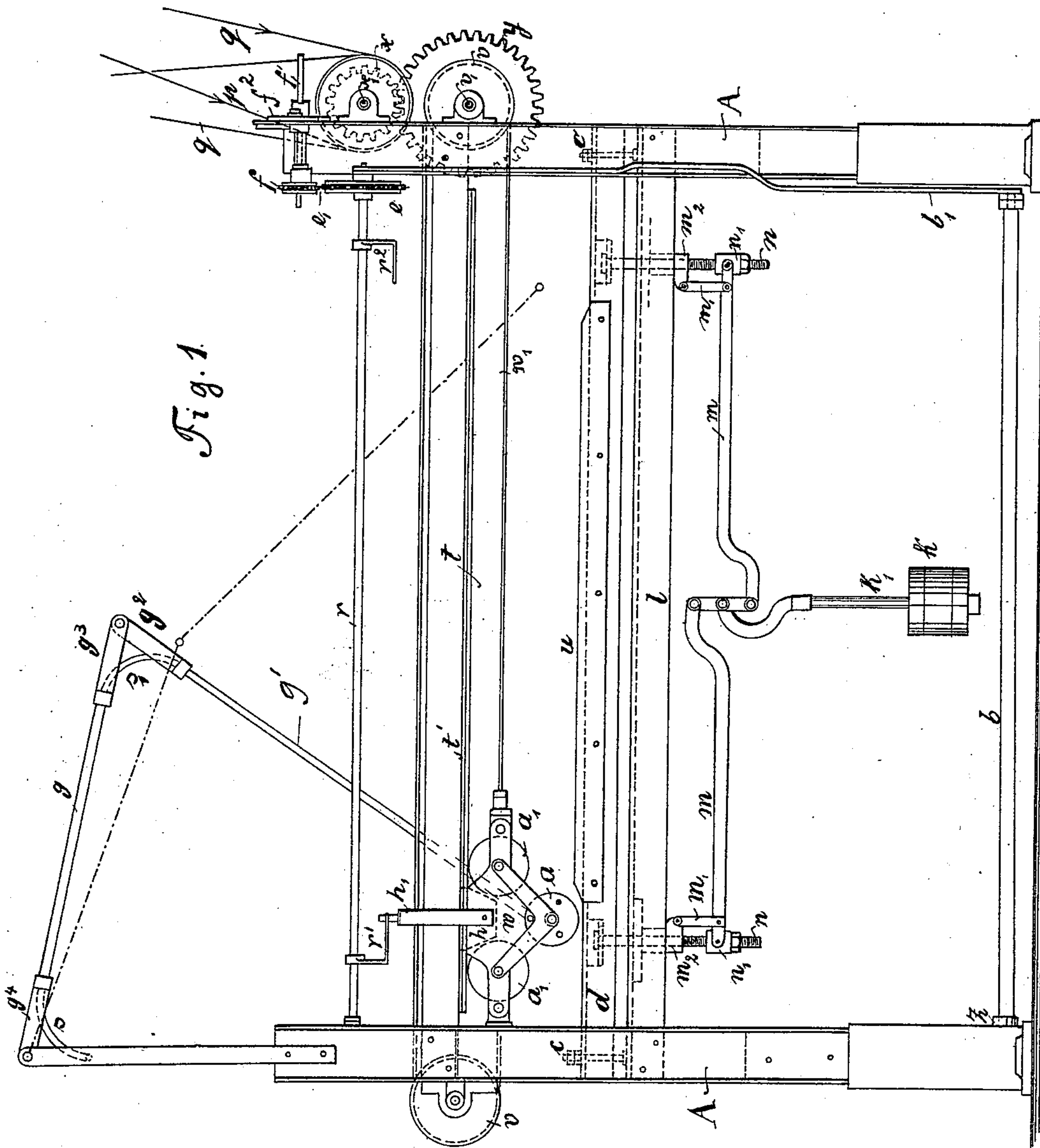
Patented Jan. 2, 1900.

O. STEGMAYER.
LEATHER WORKING MACHINE.

(Application filed Dec. 29, 1898.)

(No Model.)

4 Sheets—Sheet 1.



WITNESSES:
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No. 640,597.

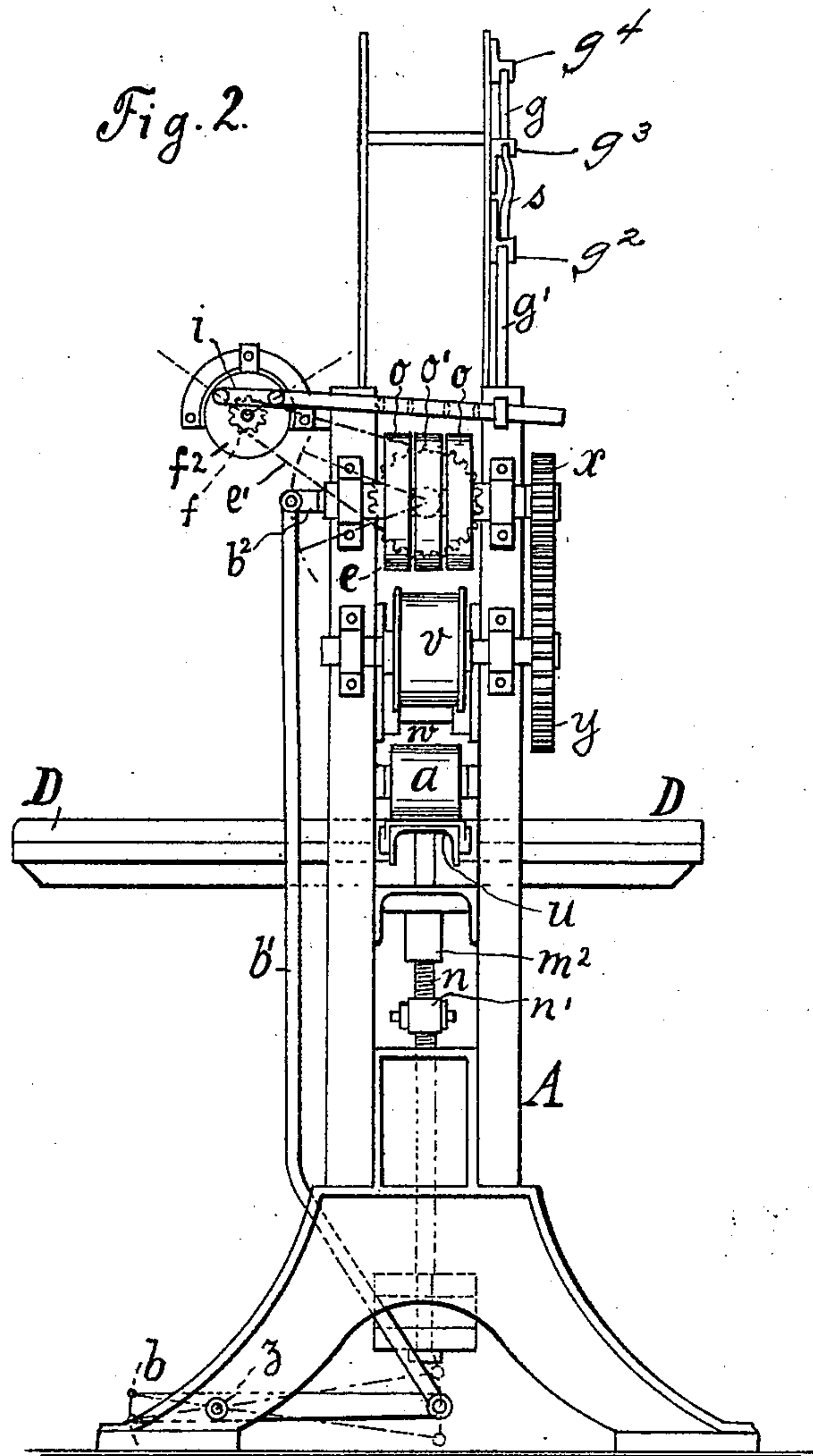
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4 Sheets—Sheet 2.



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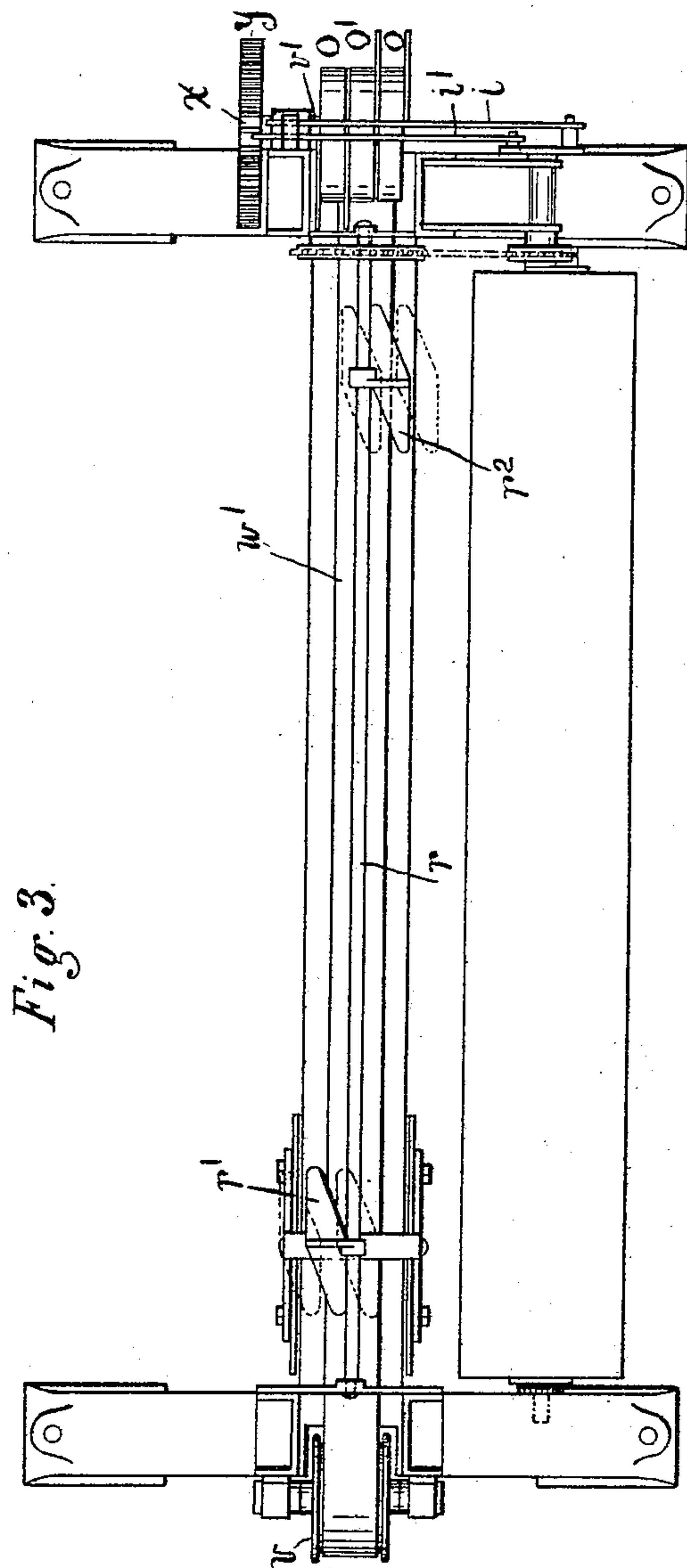


Fig. 3.

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No. 640,597.

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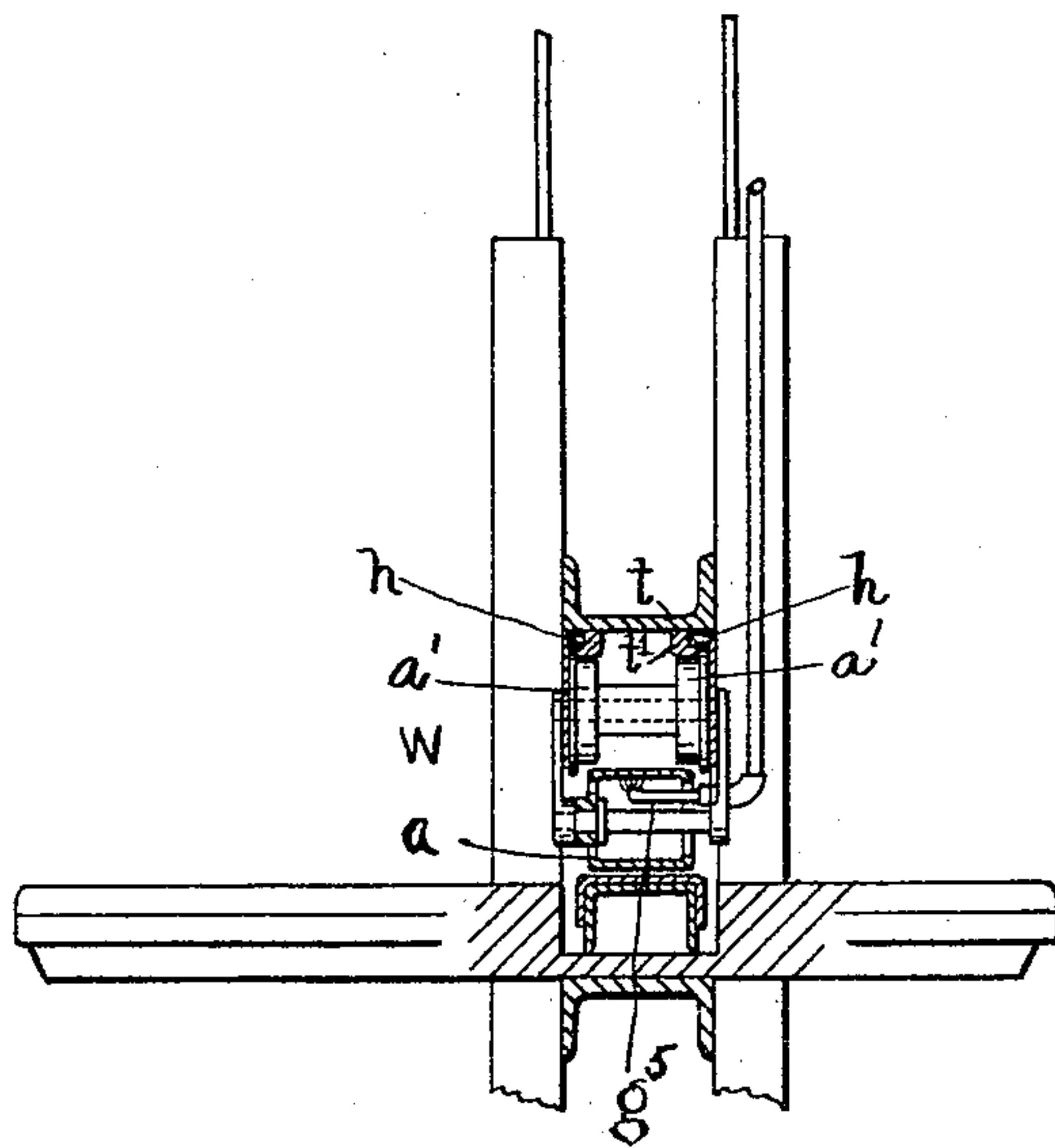
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4 Sheets—Sheet 4.

Fig. 4



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UNITED STATES PATENT OFFICE.

OTTO STEGMEYER, OF CHARLOTTENBURG, GERMANY.

LEATHER-WORKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 640,597, dated January 2, 1900.

Application filed December 29, 1898, Serial No. 700,635. (No model.)

To all whom it may concern:

Be it known that I, OTTO STEGMEYER, a subject of the Emperor of Germany, residing at Charlottenburg, Germany, have invented a new and useful Leather-Working Machine, of which the following is a specification.

My invention relates to machines for working upon leather—that is, for smoothing, polishing, or graining leather or pressing designs thereon, &c.

The object of this invention is to construct a machine adapted to be easily managed by a single operator. This object is accomplished by providing the machine with a working cylinder adapted to be moved over the pressing-plate by means of mechanical power, providing means for automatically reversing the direction of travel of the said working cylinder when it reaches either end of the pressing-plate, and also means under the control of the operator for effecting the reversing at any point along the travel of the cylinder. The machine also comprises other novel features hereinafter explained.

In the accompanying drawings, Figure 1 is a side view, Fig. 2 is an end elevation, Fig. 3 is a plan view, and Fig. 4 is a detailed view, partly in section, of a machine constructed according to my invention.

The end standards A are held together by brace-beams *t* and *l*, secured to the standards. The work-table *d*, carrying a yielding support *u*, of some elastic material, on which the leather rests when being operated upon, is held to the brace-beam *l* by means of screws and nuts *c*. The nuts *c* adjust and limit the extent of upward movement of the work-table *d*.

To transmit an upward and yielding pressure to the work-table *d*, I provide a weight *k*, acting through the rod *k'* and levers *m*. Screws *n*, secured to plate *d* and passing through the brace-beam *l*, are provided with nuts *n'*, to which the levers *m* are connected. Blocks *m*² bear against the under side of the brace-beam *l* and are connected to the levers *m* by links *m'*. Upwardly-yielding pressure will thus be produced, limited by the position of the bolts *c*, as will readily be seen.

The working cylinder *a* is supported in journals in the carriage *w*. This carriage *w* is hung to the brace-beam *l* by means of hooks

h, (see Fig. 4,) entering grooves *t'* in the brace-beam *t*. Wheels *a' a'* on the carriage run against the under side of the said beam *t* as the carriage travels back and forth. A burner *g*⁵ is secured to the interior of the working cylinder *a* and is connected to the gas-supply pipe *g'*. A driving-band *w'*, passing over the pulleys *v v*, is secured to each end of the carriage and propels the carriage back and forth by the following mechanism: The shaft *v'* of one of the pulleys *v* is provided with a cog-wheel *y*, engaging with a cog-wheel *x* on shaft *x'*. This shaft *x'* is provided with two loose pulleys *o o* and a fast pulley *o'*. Driving-belts *p* and *q*, actuated by suitable motive power and one being crossed to run in the opposite direction to the other, are alternately shifted from a loose pulley *o* to the fast pulley *o'* by means of the belt-shifting fork *i*, as hereinafter explained, to move the carriage *w* back and forth through the medium of cog-wheels *x* and *y*, pulleys *v v*, and driving-band *w'*.

I will now describe the means for automatically reversing the direction of travel of the carriage and working cylinder.

A projection *h'*, secured to the carriage *w*, comes in contact with one of the arms *r'* or *r*² on the rock-shaft *r* at each end of the travel of the carriage. One of these arms *r'* *r*² is bent diagonally backward and the other is bent diagonally forward, as shown in Fig. 3, so that as the projection *h'* strikes one arm it turns the rock-shaft *r* in one direction, and as the projection *h'* strikes the other arm it turns the rock-shaft in the opposite direction. To this rock-shaft is secured a chain-wheel *e*, adapted to actuate a chain-wheel *f* on shaft *f'* by means of chain *e'*. To the shaft *f'* is secured a disk *f*², to pins of which one end of the belt-shifters *i i'* is connected. Therefore when the rock-shaft *r* is partially rotated by the projection *h'* striking an arm *r'* or *r*² the disk *f*² will also be partially rotated, (through the medium of chain-wheels *e* and *f*,) and the belt-shifters *i i'* will be moved from one position to the other to shift the belts *p* and *q* and reverse the driving mechanism of the carriage.

To permit the operator to reverse the direction of travel of the carriage at any time irrespective of the automatic means above de-

scribed, I provide a treadle b , pivoted at z , and a rod b' , connecting the treadle to an arm b^2 , projecting from the rock-shaft r . By operating the treadle the rod b' is raised or lowered, thereby turning the arm b^2 and rocking the shaft r , which, through the mechanism explained above, shifts the belts p and q .

By heating the working cylinder a a fine gloss may be imparted to the leather, or the cylinder may be used to carry a design when heat might be required. Therefore in case it is desired to heat the cylinder I provide a gas-pipe g' and means for permitting it to travel with the carriage. A support d' is secured to one of the standards A , to which support is pivoted a holder g^4 . This holder g^4 , with the jointed holders g^2 and g^3 , carries the gas-pipes g and g' , connected by flexible tubing s' , and allows the pipe g' to be carried back and forth with the carriage. A tubing s connects with any suitable supply of gas.

A table D is provided for convenience of holding the leather not being operated upon.

By the foregoing description it will be seen that the operator requires no strength to beat or press the leather, but simply has to move the leather so that the part to be worked upon comes under the working cylinder.

I claim as my invention—

1. In a leather-working machine, the combination of a work-table, a brace-beam, a carriage bearing against said brace-beam and provided with hooks suspending it from the brace-beam, above the work-table, and a working cylinder journaled in said carriage whereby the working cylinder may be suspended by the hooks above the work-table and facilitate the placing of the leather thereon, with driving mechanism for the carriage, and means for automatically reversing the movement of the carriage at each end of its travel, substantially as described.

2. In a leather-working machine, the com-

bination of a carriage, a working cylinder journaled therein, a driving-band secured to the carriage, a shaft provided with two loose pulleys and a fast pulley, driving-belts carried on said pulleys and running in opposite directions, and gearing between said shaft and said driving-band, with a projection on said carriage, a rock-shaft parallel with the line of movement of the carriage provided with arms at each end adapted to be struck by said projection at the end of the travel of the carriage in either direction a belt-shifter mounted on a shaft parallel to the rock-shaft and mechanism operated by the said rock-shaft to move the said belt-shifter, substantially as described.

3. In a leather-working machine, a work-table, a carriage provided with a working cylinder suspended and adapted to reciprocate above said work-table, with screws n fastened to the work-table, nuts n' , levers m connected to the said screws by means of the nuts n' , a weight acting on said levers, blocks m^2 bearing against a stationary part of the machine, and links connecting said blocks and said levers, substantially as described.

4. In a leather-working machine, the combination of a pressing-plate, a carriage provided with a working cylinder, driving mechanism for the carriage, and means operated by the carriage to automatically reverse the driving mechanism at each end of the travel, with means under the control of the operator for reversing the driving mechanism at any point of travel of the carriage.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

OTTO STEGMAYER.

Witnesses:

GEORGE LOUBIER,
MAX C. STAHLER.