

(No Model.)

2 Sheets—Sheet 1.

L. D. HOWARD.

MACHINE TABLE.

No. 356,642.

Patented Jan. 25, 1887.

Fig. 1.

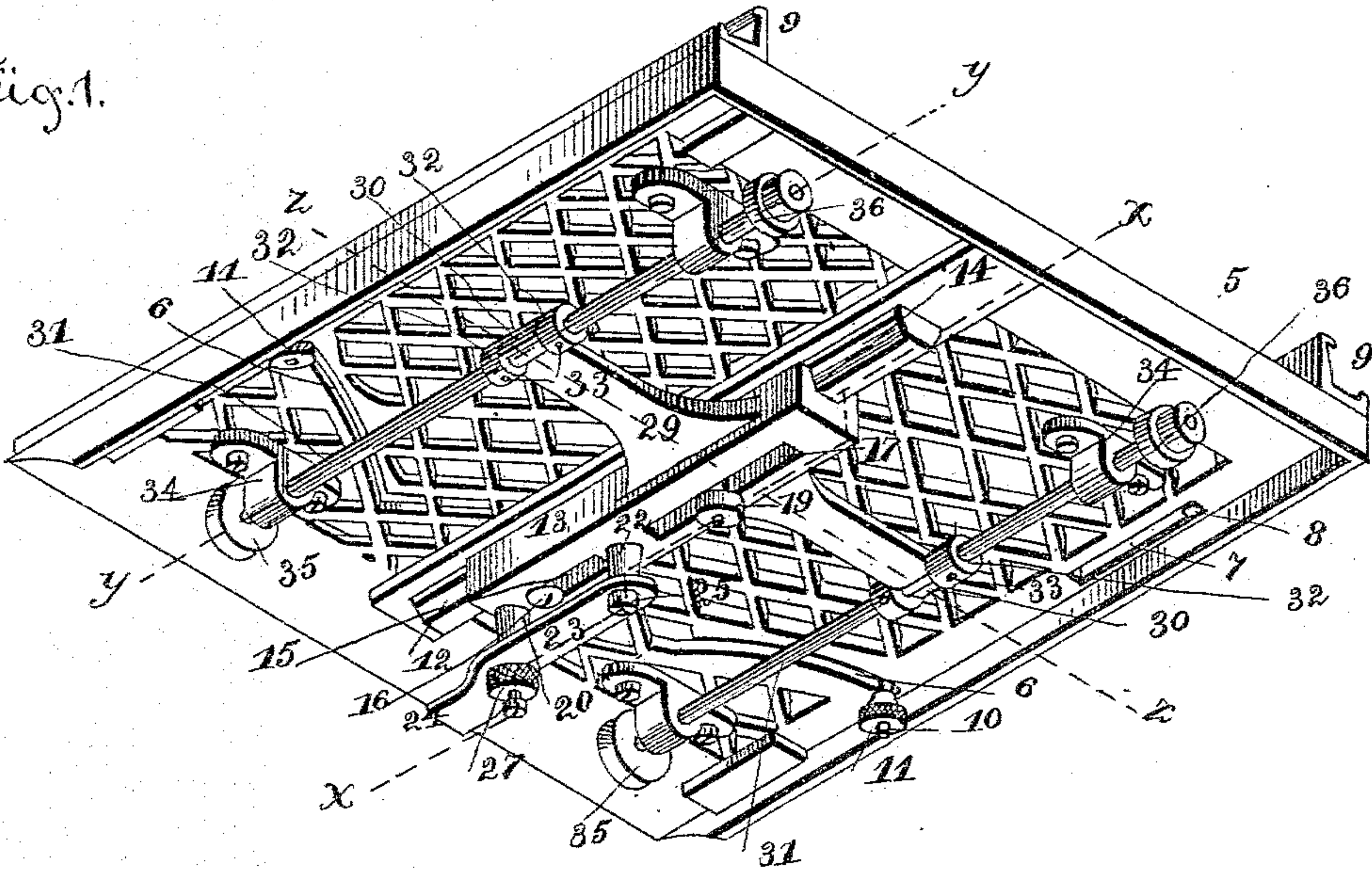
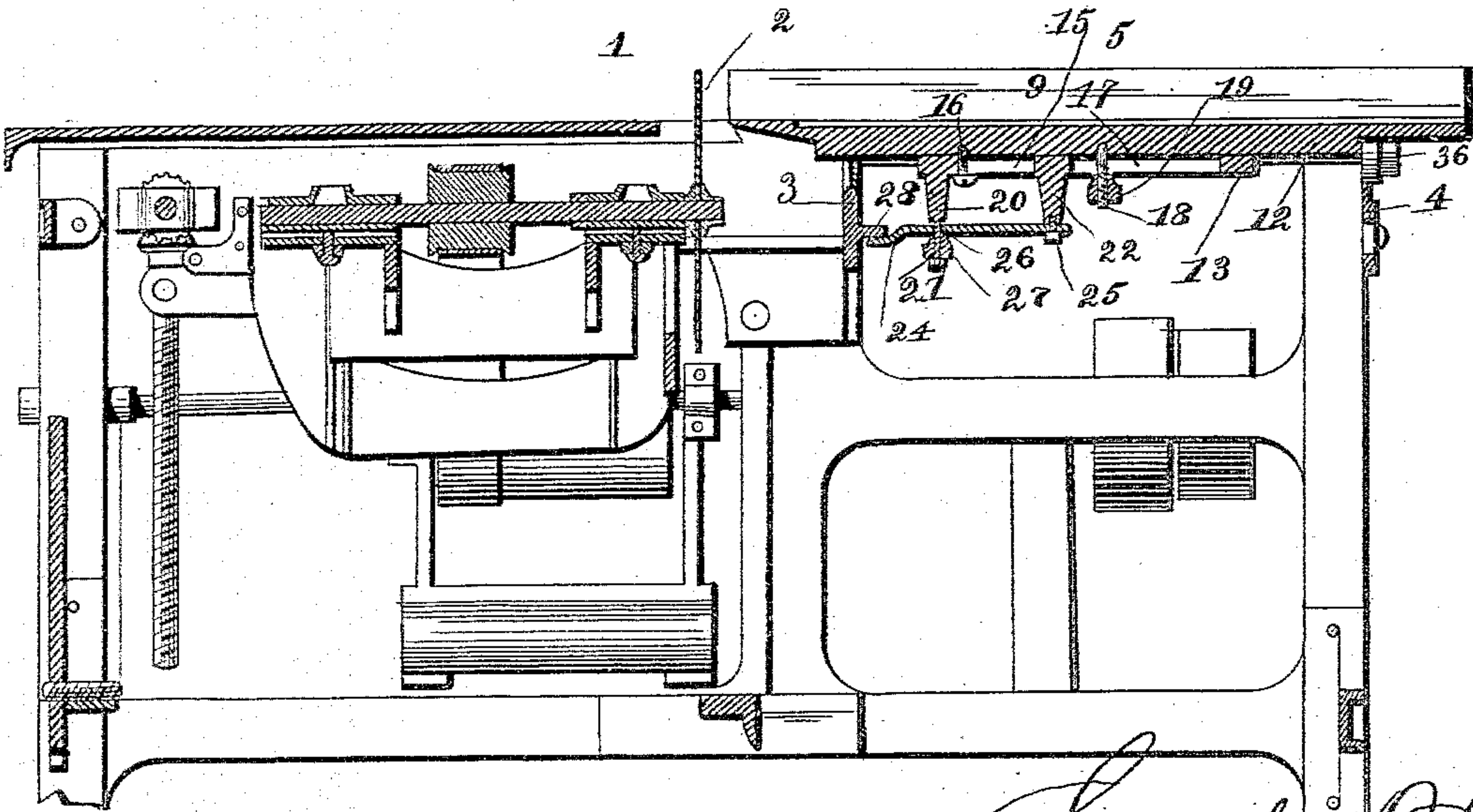


Fig. 2.



WITNESSES

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Fig. 3.

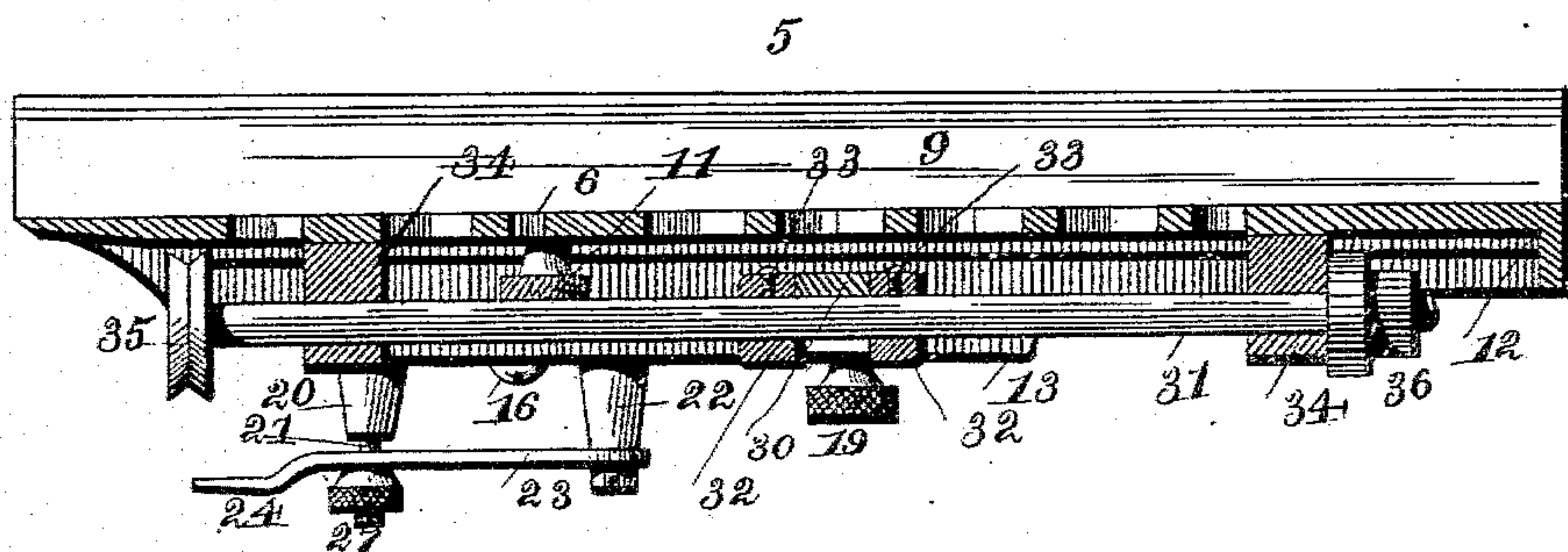
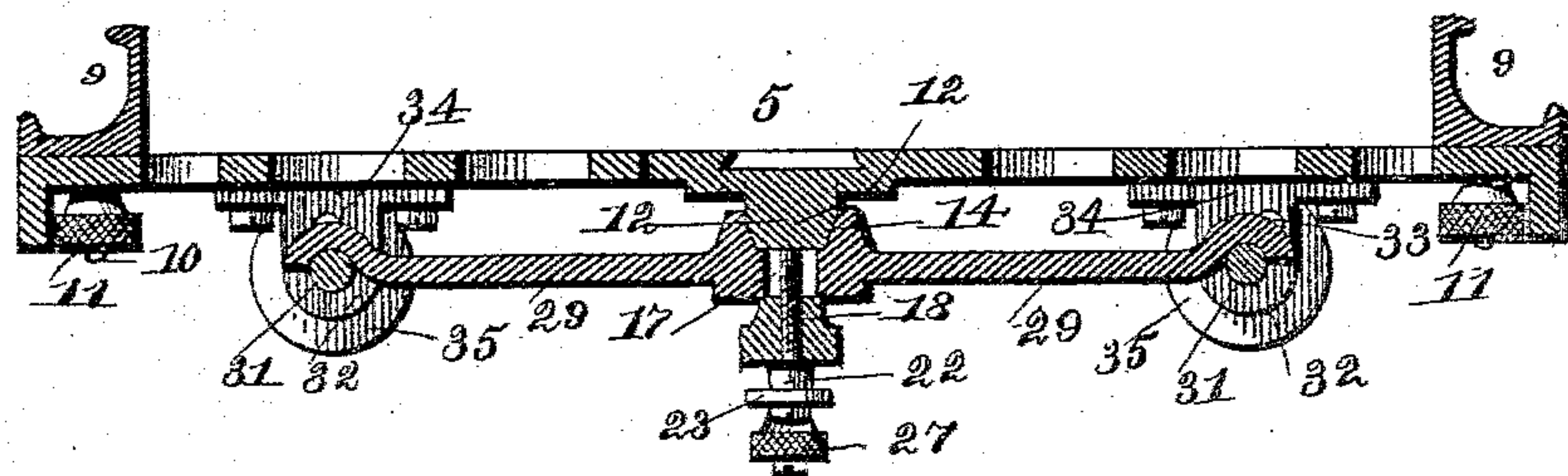


Fig. 4.



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UNITED STATES PATENT OFFICE.

LEONARD D. HOWARD, OF ST. JOHNSBURY, VERMONT.

MACHINE-TABLE.

SPECIFICATION forming part of Letters Patent No. 356,642, dated January 25, 1887.

Application filed September 20, 1886. Serial No. 214,026. (No model.)

To all whom it may concern:

Be it known that I, LEONARD D. HOWARD, a citizen of the United States, and a resident of St. Johnsbury, in the county of Caledonia and State of Vermont, have invented certain new and useful Improvements in Saw-Tables; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a view of the under side of my improved saw-table removed from its track. Fig. 2 is a vertical sectional view on line *x x*, Fig. 1, of the table and the track and frame. Fig. 3 is a similar view on line *y y*, Fig. 1; and Fig. 4 is a transverse vertical sectional view on line *z z*, Fig. 1.

Similar numerals of reference indicate corresponding parts in all the figures.

My invention has relation to tables for miter-sawing machines, and it contemplates certain improvements upon the machine for which Letters Patent No. 314,843 were granted to me on the 31st day of March, 1885; and it consists to that end in the improved construction and combination of parts of such a machine, as hereinafter more fully described and claimed.

In the accompanying drawings, the numeral 1 indicates the frame, in the middle of which the saw 2 is journaled in suitable bearings, and which is formed with the rail 3, V-shaped in cross-section and parallel to the saw, and the flat flanged rail 4, parallel to the other rail, all these parts being of the same construction as the corresponding parts in the aforementioned machine, and therefore needing no further description.

The table 5 is formed with the segmental slots 6 6, near the inner edge, and with the longitudinal slots 7 7, near to and parallel with the side edges, and lugs 8 project downward into the straight slots from near the outer ends of guide-bars 9 9 upon the upper side of the table, while screws 10, having nuts 11, slide in the segmental slots, being adjusted in them by means of the clamping-nuts, and projecting from near the inner ends of the guide-bars.

The under side of the table is formed at the

middle with a rib, 12, parallel to the side edges and extending toward the inner and outer edge to a short distance from the said edges, and a frame or casting, 13, is formed with a longitudinal recess or groove, 14, in its upper side, with which it fits and slides upon the rib.

The frame or casting is formed with a shorter inner slot, 15, at the inner end of the groove, and sliding upon a stud, 16, projecting downward from the rib, and the outer portion of the frame is formed with a longitudinal slot, 17, in the bottom of the groove or recess, and sliding upon a screw-stud, 18, having a clamping-nut, 19, which may bind against the under side of the table, the screw-stud projecting downward from the rib.

The inner end of the casting or frame is provided with a downwardly-projecting stud, 20, having a screw-stud, 21, at its end, and another stud, 22, projects from the frame or casting at the portion separating the two slots in the casting, and a strip or flat bar, 23, having its inner end, 24, bent slightly down and again inward, fits with a perforation at its outer end upon the end of the outer one of the studs upon the frame, having a screw, 25, passing through the strip into the end of the stud, while the screw-stud of the other stud projects freely through a perforation, 26, in the spring-strip, and has a nut, 27, upon it, which bears against the under side of the strip.

The strip is made of spring metal, and being fastened at one end to a longer stud than the stud upon which the screw-stud is, the strip will have a tendency to spring downward against the nut, which will serve to regulate the downward tilt of the strip and of its bent tongue, which may project in under a flange, 28, below the V-shaped rail, performing the same function as a somewhat similar strip and tongue in the machine described in the above-mentioned patent.

The grooved and slotted frame is formed with two laterally-projecting arms, 29, at its middle, having downwardly-opening semi-cylindrical bearings 30 in their ends, and the middles of two shafts, 31, revolve in these half-bearings, having collars 32 adjusted upon the shafts by set-screws 33 at both sides of the bearings, preventing longitudinal play in the said bearings.

The shafts are journaled and slide in bearings 34 upon the under side of the table near the side edges and parallel with the same, and the inner ends of these shafts have the V-grooved pulleys 35 secured upon them, which travel upon the V-rails, while the flat-faced pulleys 36 are secured upon the outer ends of the shafts and travel upon the flanged rails.

It will now be seen that by adjusting the frame or casting upon the rib, the screw-stud and clamping-nut serving to adjust it, the shafts may be adjusted to bring the pulleys or rollers farther in or out, thus bringing the table farther from or nearer to the saw, and the collars upon the shafts may be adjusted, bringing the half-bearings of the arms to engage the shafts at different points and thus regulating the throw of the shafts.

The guide-bars upon the upper face of the table may be adjusted at any desired angle to the edges of the table, and the table may be provided with any other suitable guides or holders for the work in the same manner as the table in my former patent.

By having the rollers or pulleys secured upon the ends of shafts and by having the said shafts journaled and sliding in bearings upon the under side of the table, the table may be more perfectly and exactly adjusted with reference to the saw than in the machine described in my former patent, where the table is only guided upon the wheel-bearing frame by a rib sliding in a groove in the upper side of the frame.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a table for a miter-sawing machine, the combination of a table having a rib at its middle parallel to the side edges and having bearings near the side edges and parallel to them, shafts having rollers upon them and having collars secured adjustably upon them, and a frame sliding adjustably with a groove upon the rib of the table and having laterally-projecting arms formed with half-bearings having the shafts journaled in them between the collars, as and for the purpose shown and set forth.

2. In a table for miter-sawing machines, the

combination of a table having a rib at its middle and parallel to the side edges and having bearings near the side edges parallel to the same, a frame sliding adjustably upon the rib and having laterally-projecting arms, and shafts provided with rollers or pulleys and journaled in the bearings of the table sliding in the same and journaled in the ends of the arms moving longitudinally with the same, as and for the purpose shown and set forth.

3. In a table for miter-sawing machines, the combination of a table having a rib at its middle parallel to the side edges and having bearings near the side edges and parallel to them and having a downwardly-projecting lug near the inner end of the rib and a downwardly-projecting screw-lug near the middle of the rib, a frame having a longitudinal groove fitting and sliding upon the rib and having longitudinal slots sliding upon the studs and adjusted by a nut upon the screw-stud and having laterally-projecting arms formed with downwardly-opening semi-bearings, and shafts having pulleys or rollers upon their ends and journaled in the bearings and having collars secured adjustably upon their middles bearing against the ends of the semi-bearings of the arms, as and for the purpose shown and set forth.

4. In a table for miter-sawing machines, the combination of a table having a rib at its middle parallel to the side edges and having bearings near the said edges and parallel to the same, a frame or casting fitting and sliding adjustably upon the rib and having semi-cylindrical bearings at the outer ends of arms projecting laterally from it, and shafts having pulleys or rollers upon their ends and having collars secured adjustably upon the shafts and fitting at both ends of the semi-cylindrical bearings, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

LEONARD D. HOWARD.

Witnesses:

WALTER P. SMITH,
JEFFERSON RENFREW.