

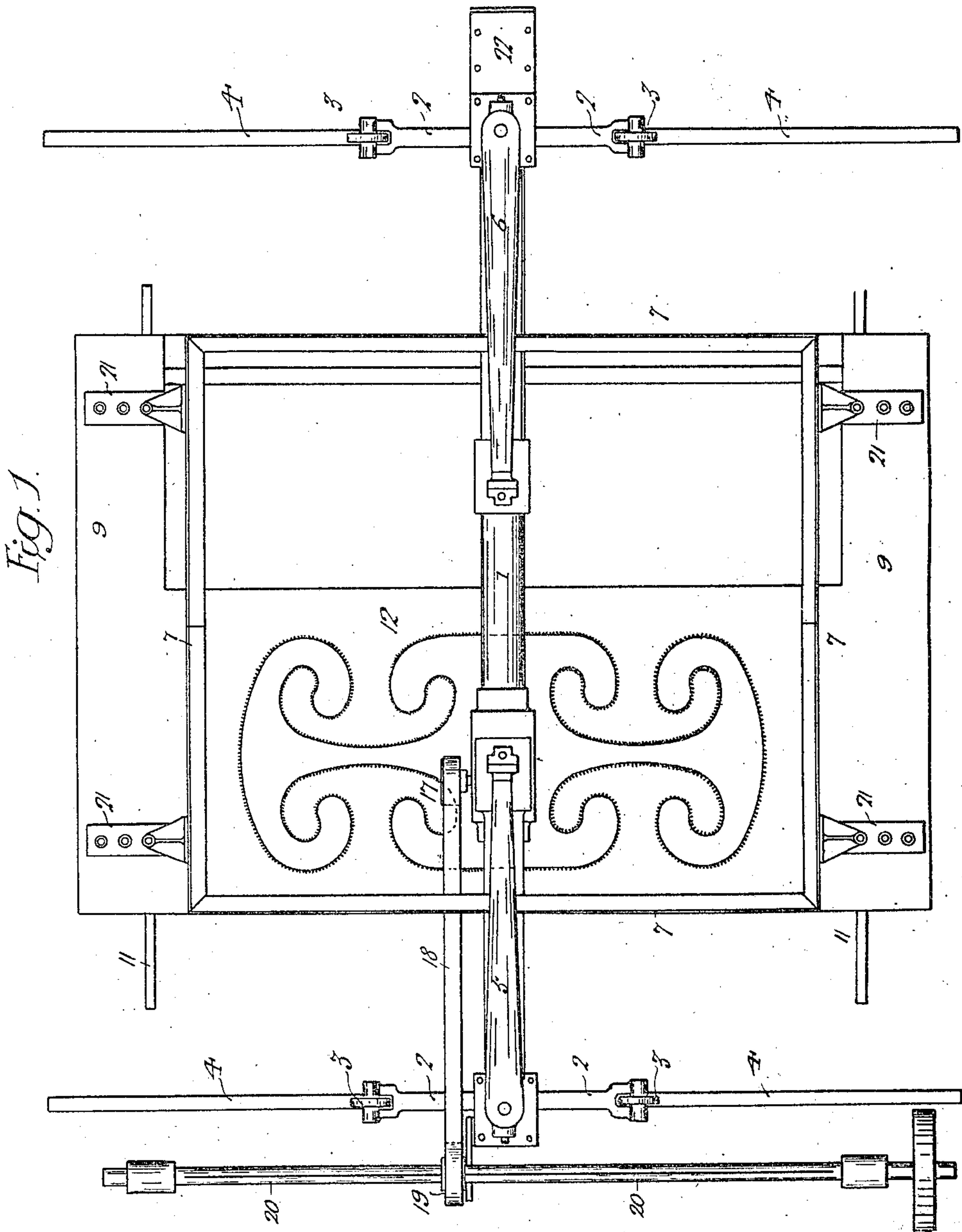
No. 825,850.

PATENTED JULY 10, 1906.

W. H. LUTZ.
QUILTING MACHINE.

APPLICATION FILED MAR. 20, 1905.

2 SHEETS—SHEET 1.



WITNESSES:

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INVENTOR

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2 SHEETS—SHEET 2.

Fig. 2.

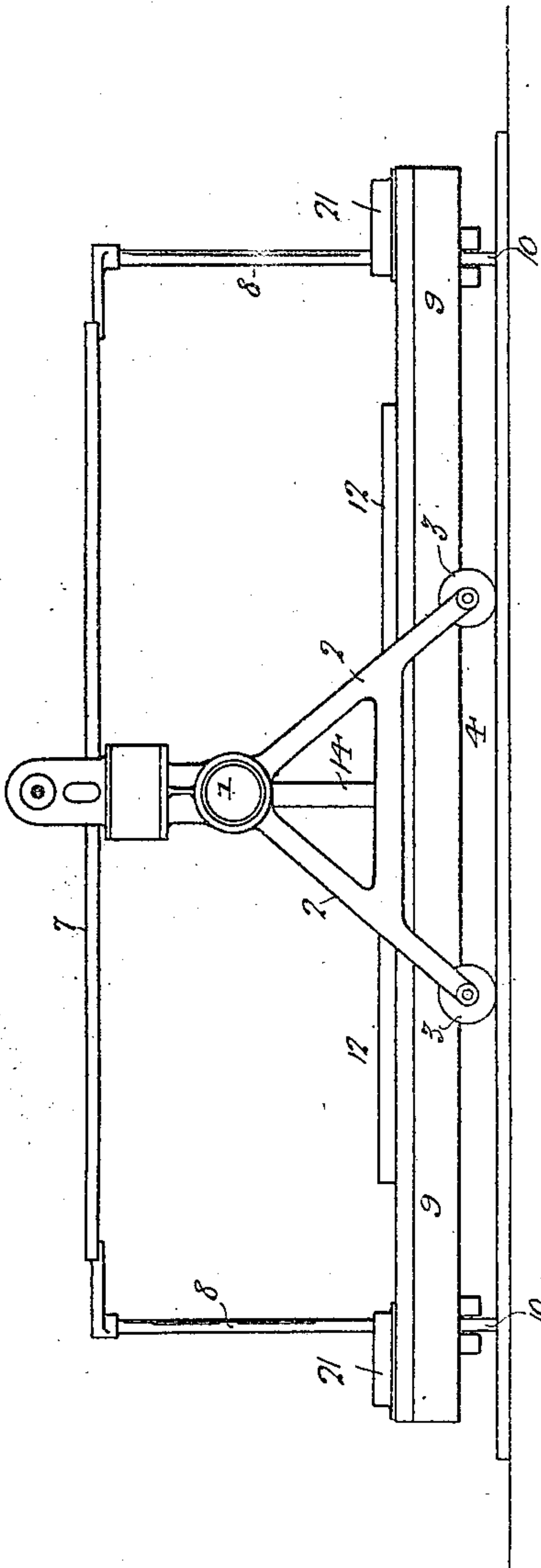
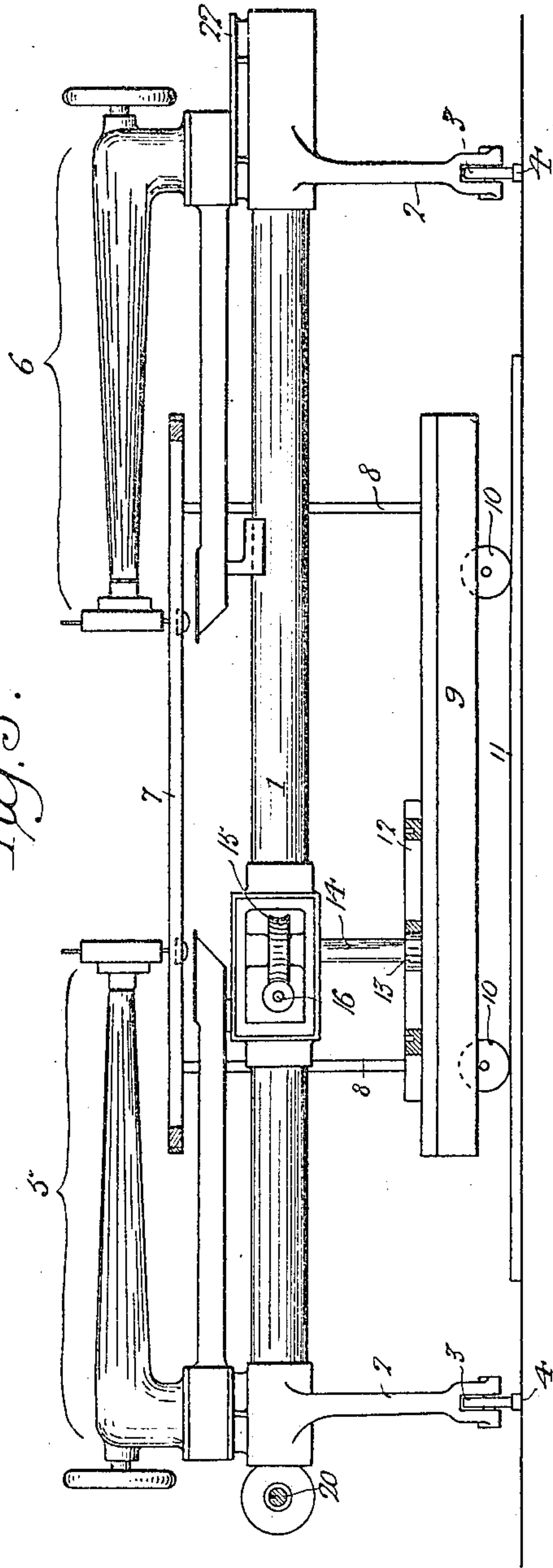


Fig. 3.



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WILLIAM H. LUTZ, OF PHILADELPHIA, PENNSYLVANIA.

QUILTING-MACHINE.

No. 825,850.

Specification of Letters Patent.

Patented July 10, 1906.

Application filed March 20, 1905. Serial No. 251,184.

To all whom it may concern:

Be it known that I, WILLIAM H. LUTZ, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Quilting-Machines, of which the following is a specification.

The object of my invention is to so construct a quilting-machine as to materially expedite the operation of the same and simplify and reduce the size of the pattern-rack, whereby the movements of the parts are governed. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a quilting-machine constructed in accordance with my invention. Fig. 2 is an end elevation of the same, and Fig. 3 is a side elevation.

The machine comprises a tubular bar or frame 1, having at each end depending legs 2, which are provided at the lower ends with rollers 3, running upon rails 4 upon the floor of the room or apartment in which the machine is contained.

The bar or frame 1 carries two long-arm sewing-machines 5 and 6, whose heads face each other, each of these machines being of such character as to overlap throughout one-half of its lateral extent the frame 7, in which is mounted the web of fabric to be quilted, said frame being mounted, by means of corner posts or standards 8, upon a carriage 9, which has rollers 10 running upon rails 11, said rollers being disposed at right angles to the rails 4, upon which the sewing-machine structure is guided.

The carriage 9 has secured to it a pattern-rack 12, with which engages a pinion 13 on a vertical shaft 14, the latter being mounted in bearings in the frame 1 and being provided with a worm-wheel 15, which meshes with a worm 16, likewise mounted in bearings in said frame 1 and provided at one end with a pulley 17, which receives a belt 18 from a pulley 19 on a driving-shaft 20, whose axis is parallel with the direction of movement of the sewing-machine structure, said shaft being mounted in suitable fixed bearings at one end of the said sewing-machine structure and being grooved for the reception of a spline in the hub of the pulley 19, so that the latter may be carried by the sewing-machine structure and may move with the same. When, therefore, the said shaft 14 and its pinion 13 are rotated, the engagement of said pinion

with the pattern-rack 12 will cause movement of the sewing-machine structure 1 and pattern-carriage 9, respectively, in the directions in which movement of the same is permitted. Hence the sewing devices carried by the respective machines 5 and 6 will form lines of stitches in the web of fabric mounted upon the frame 7, one machine forming its stitches on one side of the center of said web and the other machine forming corresponding courses of stitches on the opposite side of the center of the web, the lines of stitches, if desired, overlapping at the center and each line of stitches following a course determined by the character of the pattern-rack 12.

While the general construction and operation of the aforesaid quilting-machine is similar to those in previous use, there is this essential difference, that in prior machines but one sewing mechanism was employed, the sewing-machine arm having an overhang of sufficient extent to reach from one side of the web-carrying frame to the other, the stitches produced by the single machine covering the entire web of fabric carried by the frame. By reason of the use of two independent sewing-machines, each covering but half of the area of the web of fabric, the time necessary to complete the quilting operation is reduced by one-half, and instead of providing a pattern-rack of a size sufficient to cover the entire area of the quilt a pattern-rack of only one-half of such size is required. The construction of the machine is thereby simplified and cheapened to that extent, in addition to the increased rate of production permitted by the use of two independent sewing mechanisms instead of one.

The web-carrying frame 7 is split midway of each side of the same, so as to provide for increasing its dimensions both laterally and longitudinally, and the carriage 9 has strips 21, each with a plurality of sockets for receiving the lower ends of the posts 8, as may be required by the longitudinal adjustments of the frame 7.

In order that the sewing-machines may be adjusted to accord with the varying widths of the web-carrying frame, the base of the machine 6 is adjustable laterally on the bar 1 and on a table 22 at the outer end of said bar, being secured in position after adjustment by suitable bolts engaging the outer portion of the base and the table 22.

Having thus described my invention, I

claim and desire to secure by Letters Patent—

1. The combination in a quilting-machine of a plurality of simultaneously-acting long-arm sewing-machines having heads facing each other, and a web-holder, with means for causing bodily movement of said web-holder in one line, and bodily movement of the sewing-machines in a line at right angles to said first line, substantially as specified.

2. The combination in a quilting-machine of a web-holder and a plurality of long-arm sewing-machines overlapping opposite sides of the web-holder and having heads facing each other, with means for operating said elements whereby the machines are respectively caused to form stitches in any portion of predetermined fractional areas of the quilt, said means including two sets of tracks at right angles to each other and respectively serving to support the sewing-machines and the web-holder, substantially as specified.

3. The combination in a quilting-machine, of a web-holder, a plurality of long-arm sew-

ing-machines having heads facing each other, said machines overlapping opposite sides of the web-holder, and means for effecting movement of said web-holder in one direction, and of the machines in a direction at a right angle thereto, substantially as specified.

4. A sewing-machine having a movable support, a plurality of heads provided with sewing mechanisms carried by said support, a carriage movable relatively to said support, a pattern and a fabric-holder supported and moved by said carriage, and means connected with said pattern for operating said support and carriage so that the sewing mechanisms will stitch the configuration desired upon the fabric.

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

WILLIAM H. LUTZ.

Witnesses:

E. R. LOUGHERY,
JOS. H. KLEIN.