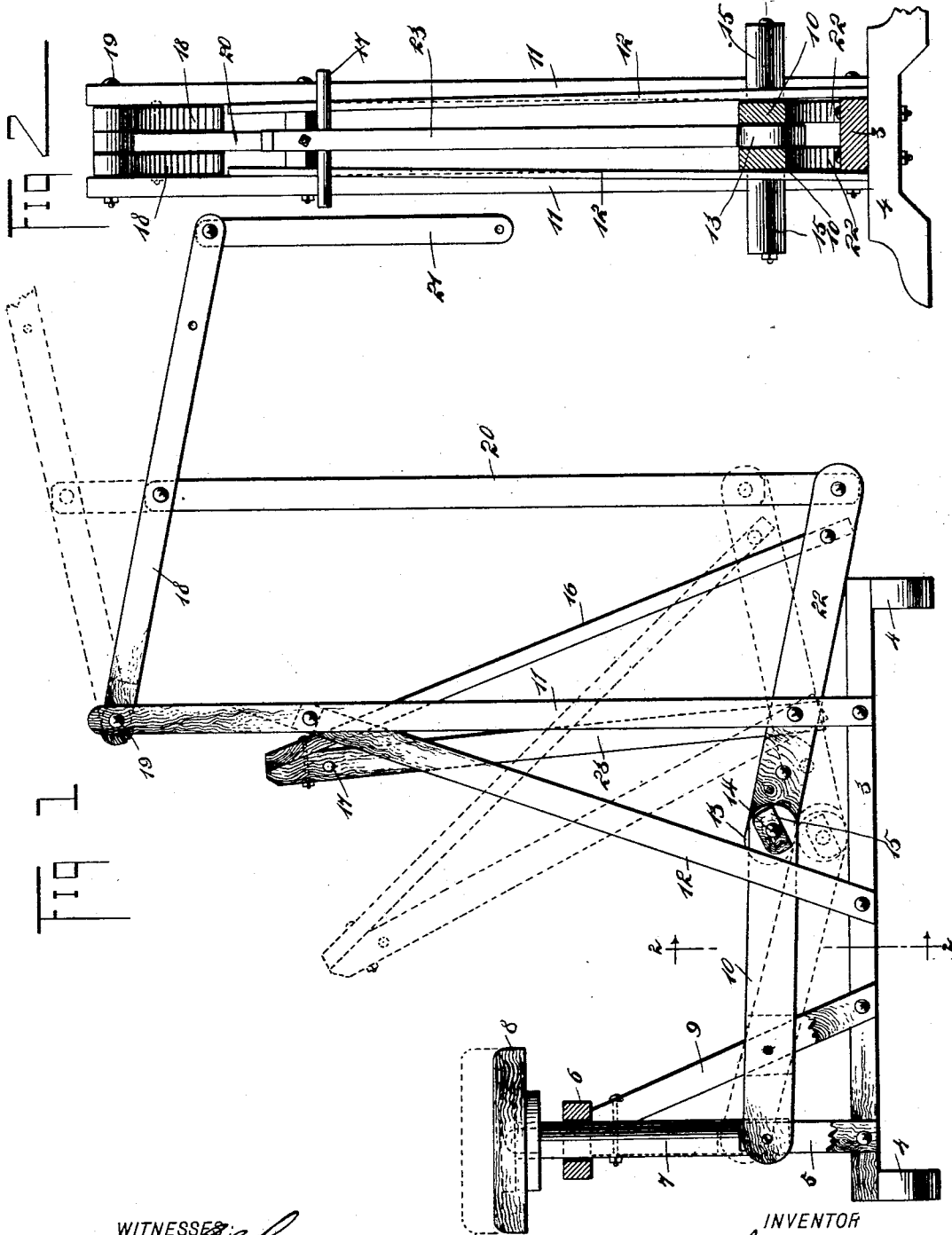


(No Model.)

J. MANIGOLD.
MECHANICAL MOVEMENT.

No. 586,445.

Patented July 13, 1897.



WITNESSES:
Geo. B. Chumy
Thos. B. Mearns

INVENTOR
J. Manigold.
BY *Wm. H. Mearns*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JULIUS MANIGOLD, OF DEXTER, NEW YORK, ASSIGNOR OF ONE-HALF TO
FRED J. MANIGOLD, OF SAME PLACE.

MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 586,445, dated July 13, 1897.

Application filed March 5, 1897. Serial No. 625,958. (No model.)

To all whom it may concern:

Be it known that I, JULIUS MANIGOLD, of Dexter, in the county of Jefferson and State of New York, have invented a new and useful Mechanical Movement, of which the following is a full, clear, and exact description.

This invention is a mechanical movement of that class which provide means for transforming and transmitting movement derived from manual sources. The said class of inventions is more specifically characterized by a movable stool and a swinging hand-lever, both mounted on certain means by which the motion from the stool and lever are synchronized and regularly transmitted from the apparatus.

This specification is a disclosure of the embodiment of the invention, while the claim defines the actual scope of my conception.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a side elevation of the apparatus with parts in section, and Fig. 2 is a sectional end elevation thereof.

The base-rail 3 is horizontally carried on two feet 4 and has two standards 5 rising from one end and carrying a block 6. Movable vertically in the block 6 and between the standards 5 is the stem 7 of the stool or seat 8. The braces 9 respectively extend downward and inward from the standards 5 and are attached to opposite sides of the rail 3. Fulcrumed between the braces 9 is a lever 10, which extends between the standards 5 and has the stem 7 pivotally stepped thereon, whereby to support the stem and seat. The lever 10 is bifurcated at its outer end to receive the stem 7.

Fixed on opposite sides of the rail 3 are two standards 11, respectively braced by guy-bars 12, running downward and inward to the rail 3. Fulcrumed between the lower portions of the standards 11 is a lever 22, formed of two rigidly-connected plates holding a tongue 13 at the inner end of the lever. The tongue 13 is received between the bifurcated inner end of the lever 10 and is pivoted thereto by a pin 14, running transversely beyond each side of the levers 10 and 22 and carrying at each

end a pedal 15. The ends of the arms formed by the bifurcation of the inner end of the lever 10 are rounded concentrically to the pin 14 and respectively fit into the correspondingly-concaved inner ends of the plates forming the lever 22, thereby forming a very snug joint between the two levers. The opening in the tongue 13, through which opening the pin 14 passes, is elongated to permit a slight sliding of the pin as the levers 10 and 22 swing in different arcs. Mounted between the plates forming the lever 22 is a bar 23, which extends upward between the guy-bars 12 and standards 11 and is braced by a bar 16, attached to its upper end and running downward and outward to the outer portion of the lever 22, to which the bar 16 is rigidly attached. A hand-pin 17 is passed transversely through the upper end of the bar 23, whereby said bar may be swung by the hands of the person using the apparatus.

A lever 18 is fulcrumed at one end on a pin 19, passing transversely between the upper ends of the standards 11. The lever 18 is formed of two rigidly-attached plates and extends outward from the standards 11. Pivoted between the plates forming the lever 18 is a rod 20, which runs down to the outer end of the lever 22 and is pivoted thereto. The free extremity of the lever 18 carries a link 21, which hangs pendent, as shown, and is particularly effective for driving reciprocal dasher-churns or for imparting motion to a rotary crank-shaft.

A person seated on the stool and grasping the pin 17 and bearing on the pedals 15 should rock back and forth, causing the stem 7 to reciprocate vertically and the levers 10 and 22 to rock. Power is applied at three points—namely, at the stool 8, the pin 17, and pedals 15. These diverse movements are concentrated in the lever 22, from which the regular swing of said lever is transmitted to the link 21.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of a base-rail, two standards rising from one end of the base-rail, a block held by the standards, a seat and stem, the latter being vertically reciprocal through

the block, two braces standing on the base-rail and attached to the standards, a lever fulcrumed between the braces and pivoted to the stem, two additional standards rising from
5 near the second end of the base-rail, two guy-bars respectively for the said additional standards, a second lever fulcrumed between the second standards and pivoted to the first lever, a pedal carried at the pivot between the
10 two levers, a bar rigidly carried on the second lever and extending upward between the

second standards, a brace attached to the upper end of the bar on the second lever and running downward to near the rear end of the second lever, a third lever pivoted between the second-named standards and at the upper ends thereof, and a link connecting the second and third levers. 15

JULIUS MANIGOLD.

Witnesses:

THOMAS J. STRAINGE,
H. O. GILMORE.