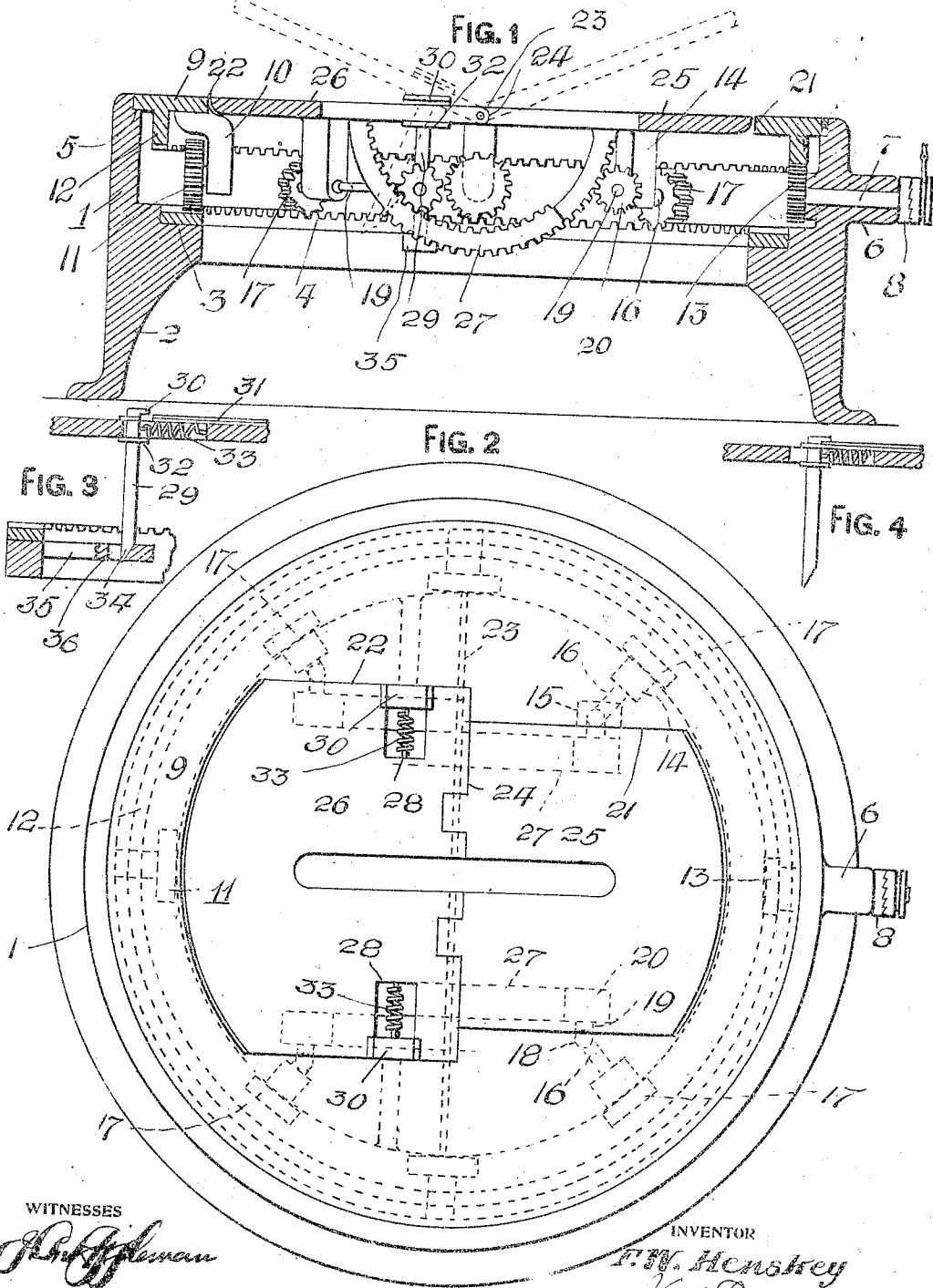


F. W. HENSKEY.
DOUBLING TABLE.
APPLICATION FILED MAY 4, 1912.

1,058,972.

Patented Apr. 15, 1913.



WITNESSES

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UNITED STATES PATENT OFFICE.

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DOUBLING-TABLE.

1,058,972.

Specification of Letters Patent.

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Application filed May 4, 1912. Serial No. 695,246.

To all whom it may concern:

Be it known that I, FREDRICK WILLIAM HENSKEY, a citizen of the United States of America, residing at Canonsburg, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Doubling-Tables, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to doubling tables and the primary object of my invention is the provision of positive and reliable means in connection with a table or other support for bending and doubling a piece of sheet metal, as tin.

Another object of this invention is to provide a doubling table that can be advantageously used in tin mills to expedite the production of tin and reduce the labor in connection therewith.

A further object of this invention is to provide a table of the above type embodying an oscillatory support that has foldable members upon which a sheet of tin is automatically clamped and held during the opening and closing of the foldable members of said support.

A still further object of this invention is to provide a doubling table that is inexpensive to manufacture, durable and highly efficient for the purposes for which it is intended.

With the above and other objects in view the invention resides in the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing wherein like numerals denote corresponding parts throughout the several views, in which:—

Figure 1 is a cross sectional view of the table in accordance with this invention. Fig. 2 is a plan of the same, Fig. 3 is a detail sectional view of a portion of the table, illustrating the automatic clamp, in a released position, and Fig. 4 is a similar view illustrating a sheet of metal held by the clamp.

A doubling table in accordance with this invention comprises a circular body 1 having legs or other supports 2. The circular body has an annular ledge 3 for a circular rack 4, and the upper inner edges of the body are cut away to provide an annular guide 5.

The rear side of the body 1 has a bearing 6 for a driven revoluble shaft 7 that has the outer end thereof provided with a clutch 8 of the ordinary and well known type. The shaft 7 can be driven by a motor or from any suitable source of power, and the clutch 8 is employed for controlling the operation of the shaft independent of the source of power.

Movably mounted in the body 1 of the table is a circular horizontal support 9 that has hangers 10 provided with revoluble pinions 11 that travel upon the rack 4. The support 9 slides upon the guide 5 and adjacent to said guide said support has a depending annular rack 12 meshing with a pinion 13 mounted upon the inner end of the driven shaft 7.

The support 9 has hangers 14 and bearings 15. Revolvably mounted in the hangers 14 are shafts 16 provided with pinions 17 meshing with the racks 4 and 12. The opposite ends of the shafts 16 are provided with universal couplings or joints 18 for shafts 19 provided with pinions 20 that are disposed at an angle relatively to the pinions 17.

The support 9 is provided with openings 21 and 22 the latter of a greater size than the former. The openings 21 and 22 are in communication and at their juncture there is a transverse pintle or pivot rod 23 carried by the support 9. Arranged upon the rod 23 are the barrels 24 of foldable members 25 and 26 arranged in and filling the openings 21 and 22 respectively. The foldable members 25 and 26 have depending segment racks 27 meshing with the pinions 20.

Oppositely disposed edges of the member 26 are slotted, as at 28, and extending through said slots are clamps 29 that have clamping heads 30 for engaging the edge of a sheet or plate 31 placed upon the member 26. The clamps 29 have guides 32 engaging the upper and lower surfaces of the member 26 and attached to said clamps are coiled retractile springs 33. The lower ends of the clamps 29 are beveled, as at 34 and are adapted to engage inwardly projecting brackets 35, carried by the annular ledge 3 of the table. The brackets 35 have openings 36 with a wall of each opening beveled and adapted to shift the clamp laterally in the slot 28.

In operation, the sheet or plate of metal to be folded is placed upon the members 25.

and 26 and with said members in a horizontal position the clamps 29 are retracted by reason of the lower ends thereof engaging the brackets 35. When the clutch 8 is thrown in the support 9 immediately starts to revolve by reason of the pinion 13 meshing with the rack 12. As the support 9 is revolved a rotary movement is imparted to the pinions 20 and the members 25 and 26 start to fold. As the member 26 moves out of the opening 22 the latches 29 are released and the heads 30 thereof are immediately placed in engagement with the sheet or plate 31 and the edge of said sheet or plate held upon the member 26. The folding of the members 25 and 26 occurs simultaneous with the revolving of the support 9 and said members are completely closed or folded when said support has made a quarter of a revolution. The movement of the shaft 7 is then reversed and consequently the operation of the support 9 and the members 25 and 26. The members 25 and 26 are unfolded or opened and assume horizontal positions as the support assumes its normal position. The clamps 29 are retracted and the folded sheet or plate released to be removed from the table. By reason of the member 26 being larger than the member 25, said members will start to open by gravity and the weight of said members, together with the folded sheet or plate, is sufficient to restore the support 9 to its normal position when the clutch 8 is disengaged.

From the foregoing it will be observed that the support 9 is oscillatory and that a novel mechanism is actuated thereby for folding a sheet or plate placed upon the table.

While in the drawing there is illustrated a preferred embodiment of the invention it is to be understood that the structural elements are susceptible to such changes, in the size, shape and manner of assemblage as fall within the scope of the appended claims.

What I claim is:—

1. A doubling table comprising a stationary support provided with a rack, an oscillatory support arranged within said stationary support, a rack and pinion for operating said oscillatory support, foldable members pivotally connected to said oscillatory support and movable therewith, racks carried by said foldable members, pin-

ions carried by said oscillatory support and engaging with the racks of the foldable members and with the rack of the stationary support for closing said foldable members during the travel of the oscillatory support.

2. A doubling table embodying an oscillatory support, a rack and pinion for oscillating said support, foldable members pivotally connected to said support and movable therewith, and means including racks and pinions for opening and closing said foldable members during an oscillatory movement of said support.

3. A doubling table comprising a body, a support movable therein, foldable members arranged in said support, clamps carried by one of said members, and means including racks and pinions for opening and closing said foldable members during a movement of said support.

4. A doubling table comprising a body, a horizontal oscillatory support movable in said body and provided with openings, foldable members arranged in the openings of said support and adapted to be opened and closed to fold a sheet placed upon said members, latches carried by one of said members and automatically actuated to clamp a sheet upon said member, and means including racks and pinions actuated by a movement of said support for opening and closing said members.

5. A doubling table comprising a stationary support provided with a rack, an oscillatory support arranged within said stationary support, a rack and pinion for operating said oscillatory support, foldable members pivotally connected to said oscillatory support and movable therewith, racks carried by said foldable members, pinions carried by said oscillatory support and engaging with the racks of the foldable members and with the rack of the stationary support for closing said foldable members during the travel of the oscillatory support, and latches carried by one of said members and automatically actuated to clamp a sheet upon said member.

In testimony whereof I affix my signature in the presence of two witnesses.

FREDRICK WILLIAM HENSKEY.

Witnesses:

N. LOUIS BOGAR,
HARRIET R. PURVIS.