

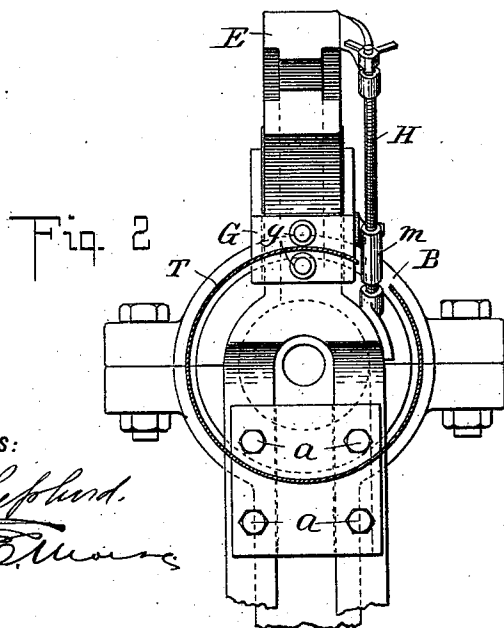
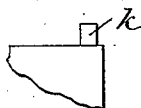
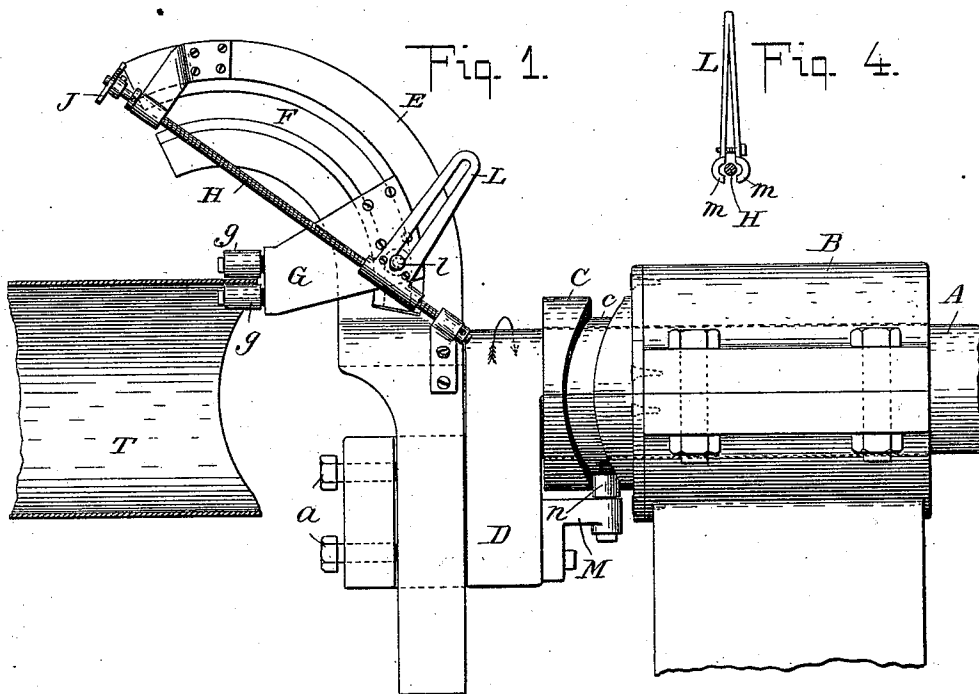
(No Model.)

2 Sheets—Sheet 1.

J. MISKOLCZY.
FLANGING MACHINE.

No. 536,437.

Patented Mar. 26, 1895.



WITNESSES:
W. B. Shepherd.
Geo. E. Moore

INVENTOR
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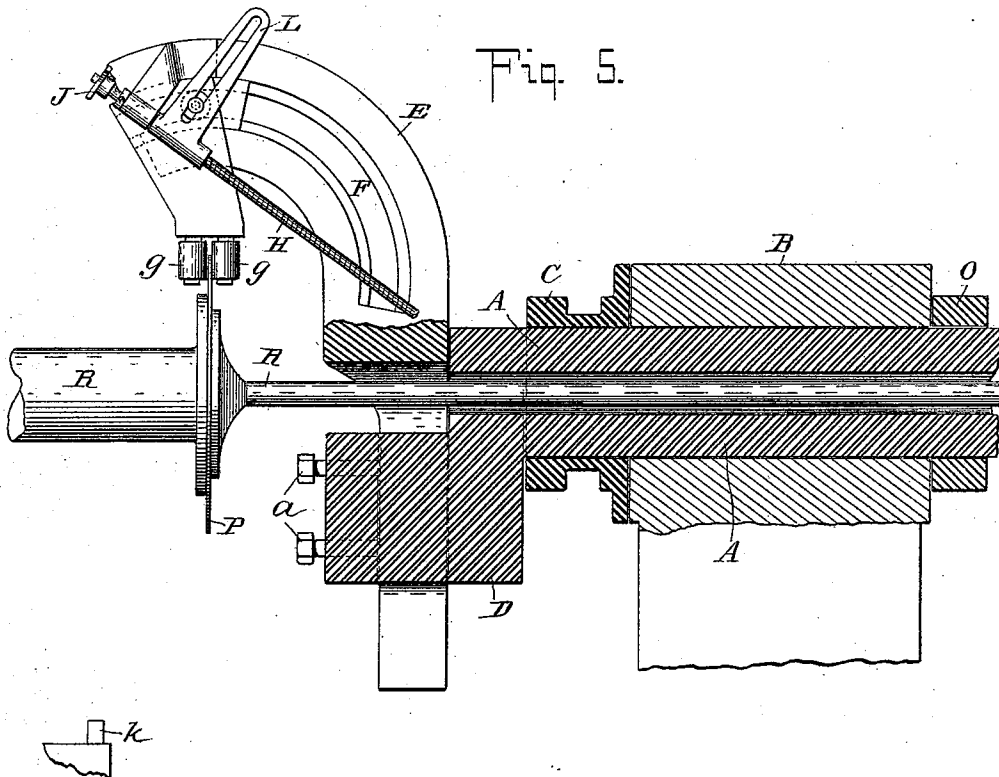
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2 Sheets—Sheet 2.

J. MISKOLCZY.
FLANGING MACHINE.

No. 536,437.

Patented Mar. 26, 1895.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOSEPH MISKOLCZY, OF NEW YORK, N. Y., ASSIGNOR OF THIRTY-ONE FORTIETHS TO THE GENERAL MANUFACTURING COMPANY, OF NEW JERSEY, AND JAMES J. MCINERNEY, OF BROOKLYN, NEW YORK.

FLANGING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 536,437, dated March 26, 1895.

Application filed August 25, 1894. Serial No. 521,295. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH MISKOLCZY, a subject of the Emperor of Austria-Hungary, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Flanging-Machines, of which the following is a full, clear, and exact description.

My invention relates to flanging machines and consists in the organization of apparatus hereinafter set forth and claimed.

My invention will be understood upon reference to the accompanying drawings, wherein—

Figure 1 is a side elevation of a machine embodying my invention. Fig. 2 is an end elevation thereof. Figs. 3 and 4 are details presently to be described, and Fig. 5 is a sectional side elevation of the machine slightly modified to adapt the same for a different purpose from that illustrated in the preceding figures all of which will be fully hereinafter set forth.

In the drawings A represents a shaft rotated by any suitable mechanism. This shaft is carried in a bearing B, and is provided with an arm D in which is carried a suitable head E. This head is adjustable in the arm and held in place by adjusting screws *a* or other analogous devices. The head E is provided with a suitable curvilinear track or counter-sunk way F, within which works a bracket G provided at or near its free end with gripping or bending devices shown in the present instance as rollers *g*, or I may use other suitable devices for bending in lieu of the rollers *g*.

Carried in bearings on the head is a screw-rod H provided at one extremity with a star or wiper wheel J, which wiper wheel co-operates with an abutment *k* as the head is revolved by the rotation of the shaft. Carried also by the screw-rod is a slotted plate L which engages a stud *l* on the bracket G, and is provided with gripping jaws *m m*, which embrace the screw-rod H.

Secured to the bearing is a sleeve C provided with a cam groove *c*, within which groove works a bracket M carried by the arm D. This bracket is adjustable on the arm in

order that its roller *n* may be brought into engagement with the cam slot or removed entirely from engagement with the cam slot. This constitutes the reciprocating mechanism for moving the flanging device on lines parallel to its axis of revolution, but other and analogous mechanism may be used.

The operation of the device is as follows: A tube T is brought up to the machine and the edge entered between the grippers. The shaft is now rotated in the direction of the arrow in Fig. 1 and the grippers traveling around the edge of the mouth of the tube. Once in each rotation of the shaft the wiper wheel will engage one of its teeth with the abutment *k* and the screw-rod will be turned through one hundred and twenty degrees as shown in Fig. 3, but, of course, it will be understood that the wiper wheel may have any desired number of arms. So therefore it will be apparent, that as the rotation of the shaft continues the bracket G will be moved in its curvilinear path and the grippers carried by its free end will gradually turn up a flange on the end of the tube. These operations take place when it is desired to turn up a flange on a tube and to have all the parts of the flange lie in the same plane. When, now, it is desired that the parts of the flange should lie in a warped surface, as, for instance, when it is desired to turn up a flange on a tube to construct a boiler cupola, the bracket M will be made to engage its cam, so that in addition to a rotary motion the head and flanging device will also receive a reciprocatory motion on account of the reciprocation of the shaft by the interactions of the bracket M and cam C. It will be quite evident, therefore, when this mode of operation is resorted to that the end of the tube and the flange will not lie in the same plane, but will lie in a warped or curved surface, so that the tube may be seated on end on a tubular boiler.

In the form illustrated in Fig. 5 the bracket M is dispensed with, the shaft being held from reciprocating by a collar O. This form of machine is designed for flanging plates, and similar letters of reference refer to parts similar to those in the first figure. The plate P, which is to be flanged, is held in position

by headed gripper rods R or other analogous gripping devices. In this form, the edge of the plate is entered between the grippers and as the shaft rotates the bracket carrying the grippers is caused to traverse its track and to bend up a flange on the plate, the operations being similar to the operations of the machine illustrated in the first figure, the shaft A in this case rotating in an opposite direction to that in the operation described in connection with Fig. 1.

While I have particularly described certain machinery and have set forth in positive terms the form, arrangement and interaction of the parts, I would have it specifically understood that I do not mean to thereby limit myself to the construction herein thus rigidly described, as other and analogous means may readily suggest themselves to those who may desire to enjoy the fruits of my invention.

What I claim is—

1. In a flanging machine, the combination of a revolving head, a movable flanging device carried thereby, automatic mechanism for moving the flanging device at an angle to the axis of revolution of the head, and reciprocating mechanism for reciprocating the flanging device on lines parallel to its axis of revolution, substantially as described.

2. In a flanging machine, the combination of a rotating shaft, a head carried thereby, a movable flanging device carried by the head, and automatic mechanism for moving the

flanging device at an angle to the axis of the shaft, and a cam device co-operating with the head to reciprocate the same on lines approximating the axis of the shaft, substantially as described.

3. In a flanging machine, the combination of a rotating shaft, a head carried thereon, and adjustable angularly to the axis of the shaft, and a flanging device carried by the head and adjustable relatively thereto, substantially as described.

4. In a flanging machine, the combination of a revolving head a flanging device carried by the head and moving thereon in a curvilinear path, and adjusting mechanism for moving the flanging device in its curvilinear path, consisting of a screw rod provided with a wiper wheel adapted to co-operate with an abutment in its path, substantially as described.

5. In a flanging machine, the combination of a rotating shaft, a head carried thereby, a bracket carried by the head and movable therein, gripping devices carried by the bracket a slotted plate engaging with the bracket, a screw-rod engaging with the slotted plate, a wiper wheel carried by the screw-rod and an abutment engaging with the wiper wheel, substantially as described.

JOSEPH MISKOLCZY.

Witnesses:

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GEO. E. MORSE.