

No. 753,844.

PATENTED MAR. 8, 1904.

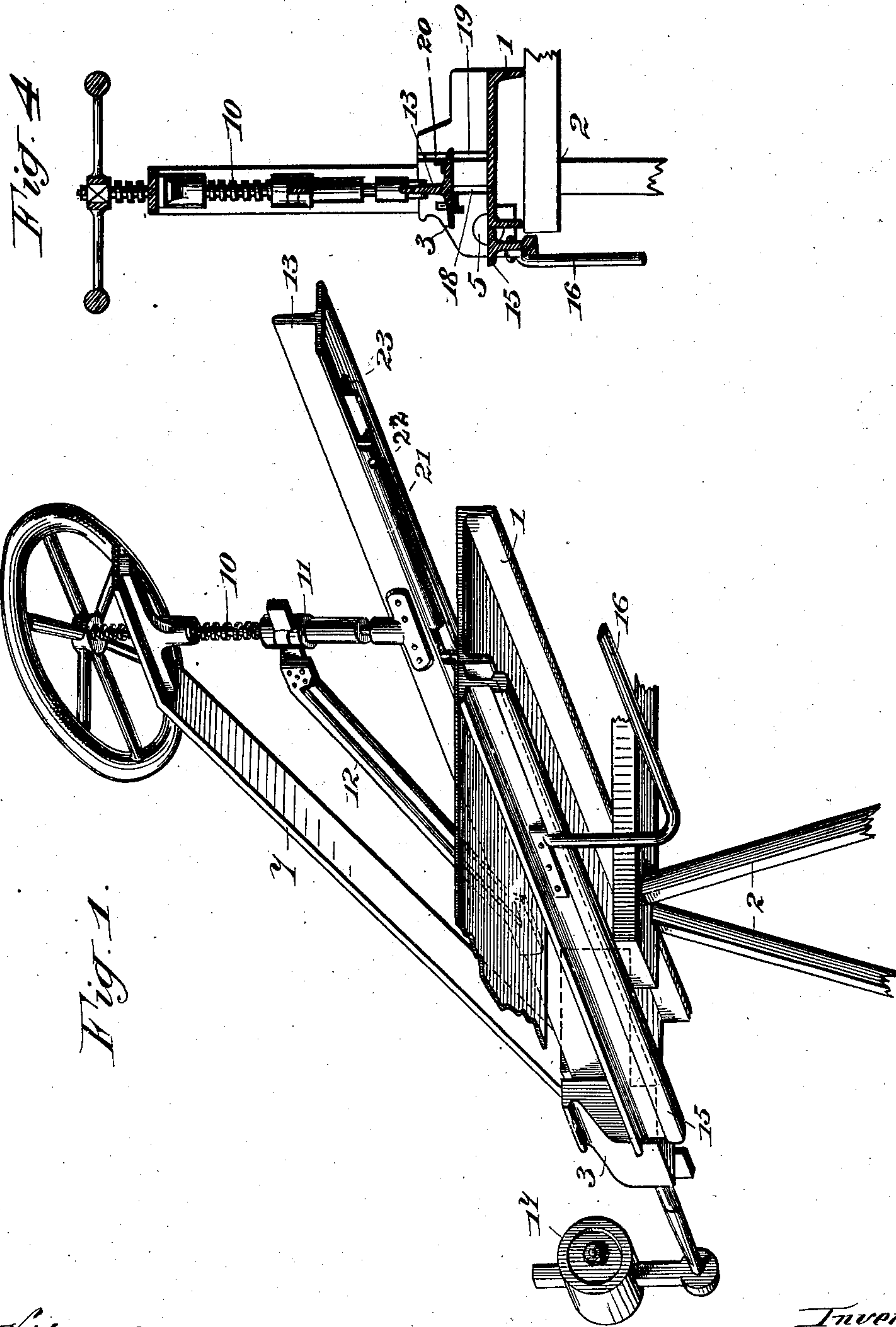
A. H. BIF.

PORTABLE MACHINE CAPABLE OF BENDING OR MOLDING SHEET ZINC.

APPLICATION FILED MAR. 31, 1902.

NO MODEL.

3 SHEETS—SHEET 1.



Witnesses:
E. Hamsche.
L. Waldman

Inventor:
Auguste Hubert Bif
per W. Singer.
Attorney

No. 753,844.

PATENTED MAR. 8, 1904.

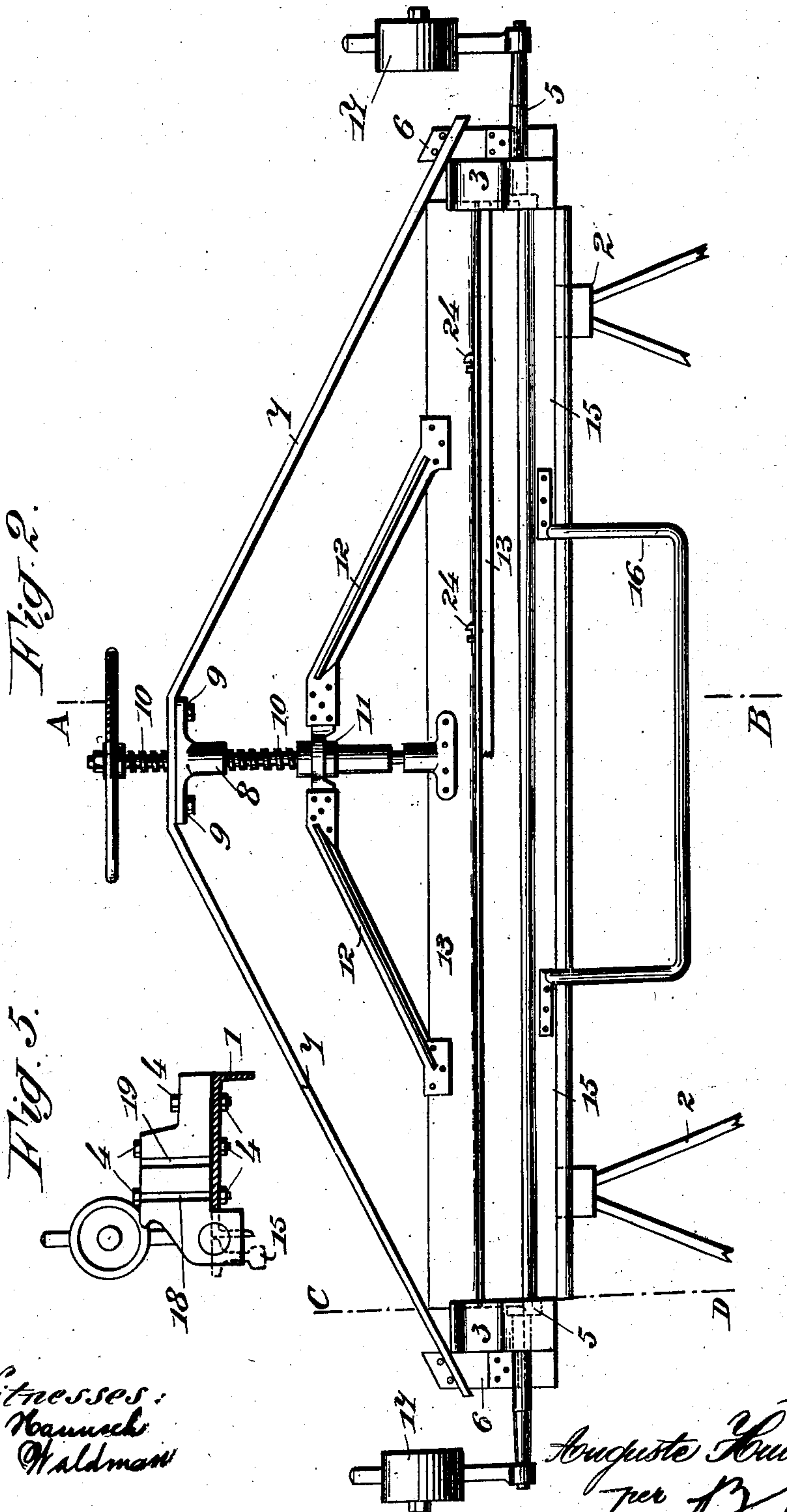
A. H. BIF.

PORTABLE MACHINE CAPABLE OF BENDING OR MOLDING SHEET ZINC.

APPLICATION FILED MAR. 31, 1902.

NO MODEL.

3 SHEETS—SHEET 2.



Witnesses:
E. Haunack
L. Waldman

Inventor:
Auguste Hubert Bif
per J. J. Singer
Attorney

No. 753,844.

PATENTED MAR. 8, 1904.

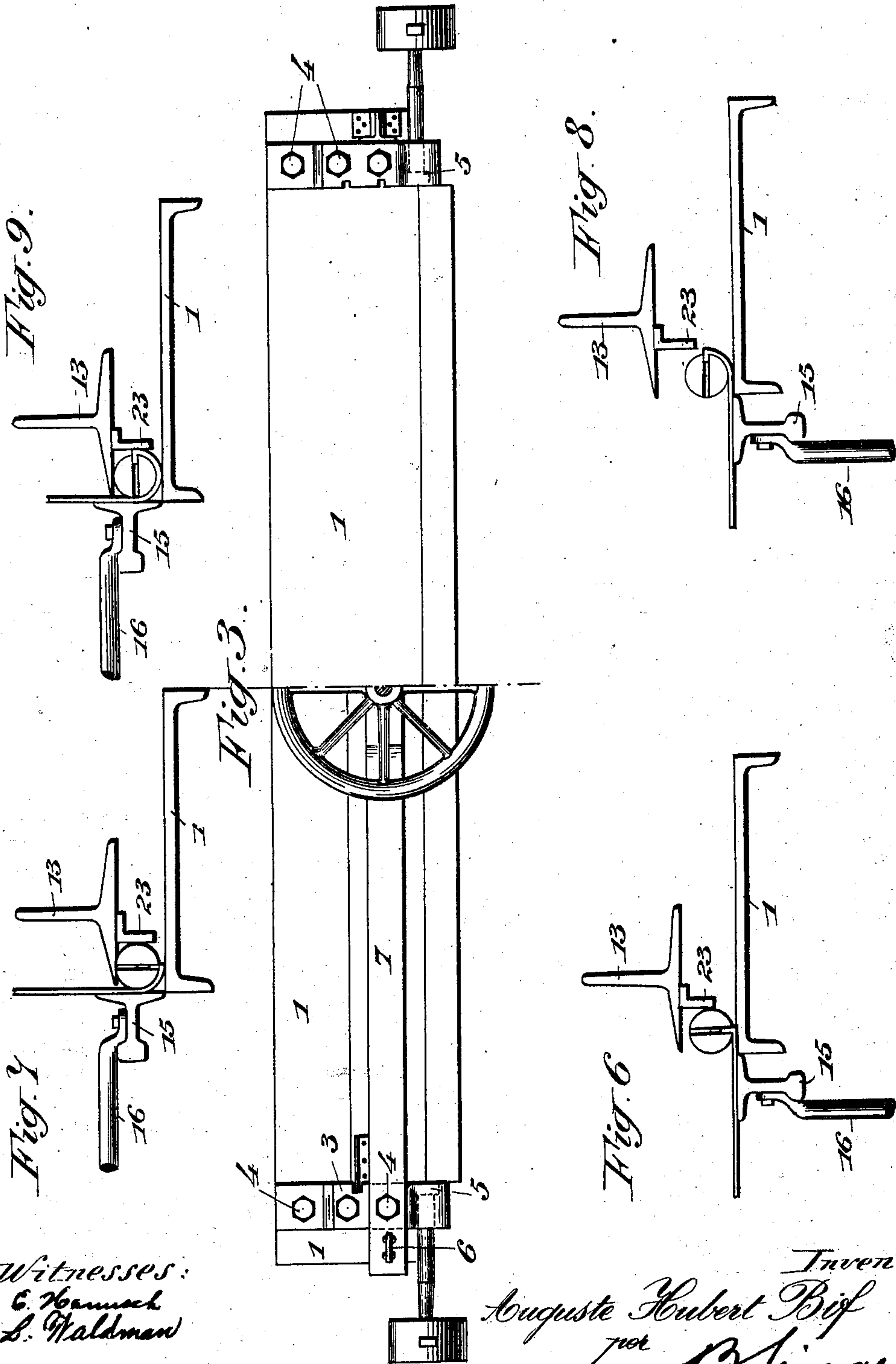
A. H. BIF.

PORTABLE MACHINE CAPABLE OF BENDING OR MOLDING SHEET ZINC.

APPLICATION FILED MAR. 31, 1902.

NO MODEL.

3 SHEETS—SHEET 3.



Witnesses:
E. Hamisch
L. Waldman

Inventor:
Auguste Hubert Bif
per J. J. Singer.
Attorney.

UNITED STATES PATENT OFFICE.

AUGUSTE HUBERT BIF, OF BOISGUILLAUME, NEAR ROUEN, FRANCE.

PORTABLE MACHINE CAPABLE OF BENDING OR MOLDING SHEET-ZINC.

SPECIFICATION forming part of Letters Patent No. 753,844, dated March 8, 1904.

Application filed March 31, 1902. Serial No. 100,724. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTE HUBERT BIF, a citizen of the French Republic, and a resident of Boisguillaume, near Rouen, France, have
 5 invented a new and useful Portable Machine Capable of Bending or Molding Sheet-Zinc and Sheet-Iron and of Making Tubing, of which the following is a specification.

In the drawings, Figure 1 is a partial perspective view of the machine. Fig. 2 is an elevation. Fig. 3 is in part a plan of the complete apparatus and in part a plan of the table and its accessories. Fig. 4 is a section from A to B in Fig. 2. Fig. 5 is a section from C
 15 to D in Fig. 2. Figs. 6, 7, 8, and 9 are sectional views showing the method of working the machine to make a round molding or torus or spouting.

A table 1 is provided supported on trestles
 20 2. At each end of the table there is secured a shoe 3, pierced by an opening in which is rotatably mounted a spindle 5, the latter at its extremities being provided with counterpoises 17. This spindle 5 supports a rail 15,
 25 which extends between the said shoes and is supported at a point adjacent one of the horizontal edges of the table, as can be more clearly seen from Figs. 6 and 9 of the drawings. For the purposes of imparting motion to the rail
 30 I provide an operating-lever 16, which may be conveniently secured by its ends, as seen in Fig. 2. The motion of this rail is limited to a rotary one, the axis of rotation coinciding with said horizontal edge of the table, the
 35 base of the rail when in its normal position extending in the same horizontal plane as the surface of the table, as can be seen in Figs. 6 and 8. At the extremities of the table and beyond the shoes are secured irons or sup-
 40 ports 6, which receive the ends of supporting-arms 7, the latter being inclined upwardly and supporting between their upper ends the interiorly-threaded socket 8, provided with feet 9, which permit of its securement to the
 45 said arms. A threaded shaft 10 passes through the socket and carries at its upper end a hand-wheel 14 for the purpose of rotating the shaft 10. At the lower end of the shaft is mounted a sleeve 11, within which the said shaft may
 50 freely rotate, this sleeve having angularly-

disposed arms 12 affixed thereto, the latter at their lower ends being secured to the inverted T-iron 13. The T-iron 13 has its horizontal flanges adjacent the extremities thereof cut away, enabling the said ends to be received
 55 in guide-grooves 18, formed on the inner face of the said shoes. The horizontal flange of the said iron 13 is provided with guides 20, which are received within guide-grooves 19, formed on the inner faces of the shoes 3 and
 60 adjacent and in parallel alinement with the guide-grooves 18 thereof, thus preventing any motion of the iron 13 save a purely vertical one.

In operation the sheet-iron or other metal
 65 is placed on the table 1, the one side thereof being fastened to the table by bringing the iron 13 down to engage the upper face of the metal, at which time the rail 15 is rotated by means of the lever 16 and the bend formed
 70 to according to whatever angle is desired, the rotation of the rail being limited to this desired angle. If it is desired to make a round molding, a mandrel 21 is employed consisting of two half-circular irons connected together,
 75 but slightly separated to allow the edge of the sheet metal to be introduced therebetween. An aperture is made toward the end of the mandrel, and by the insertion of tongs or the like the material may be removed after the
 80 molding has been formed. After the material has been inserted in the mandrel, as stated, the iron 13 is brought down to secure the mandrel between the table and its under face, as seen in Fig. 6, an angle 23 in this instance be-
 85 ing employed secured to the under face of the iron 13, which limits any rearward movement the mandrel might have a tendency to make, as illustrated in Figs. 7 and 9 of the draw-
 90 ings. Pins 24, such as illustrated in Fig. 2 of the drawings, may be employed to secure the angle-iron to the iron 13, thus permitting said angle-iron to be readily removed.

Having now fully described my invention, what I claim as new, and desire to secure by
 95 Letters Patent, is—

The combination with the table of shoes secured adjacent the ends thereof, a spindle journaled in the shoes with a rail supported by the spindle, a lever for operating the rail, a
 100

screw-threaded socket secured above the table
with arms connected to the socket and to the
table for supporting the socket, a threaded
shaft extending through the socket, the inner
5 faces of the shoes having guide-grooves formed
therein, an iron having its ends extending in
said grooves, a sleeve on the shaft connecting
the shaft to the said iron whereby the said
iron will be raised and lowered by the opera-
10 tion of said screw-threaded shaft, and coun-
terpoises on the ends of the said spindle, and

an angle-iron detachably secured to the under
face of said first-named iron, said rail having
its base normally lying in horizontal align-
ment with the surface of the table. 15

In testimony whereof I have hereunto set
my hand in presence of two witnesses.

AUGUSTE HUBERT BIF.

Witnesses:

PAUL MUNN,
LOUISE MAUGER.