

No. 677,056.

Patented June 25, 1901.

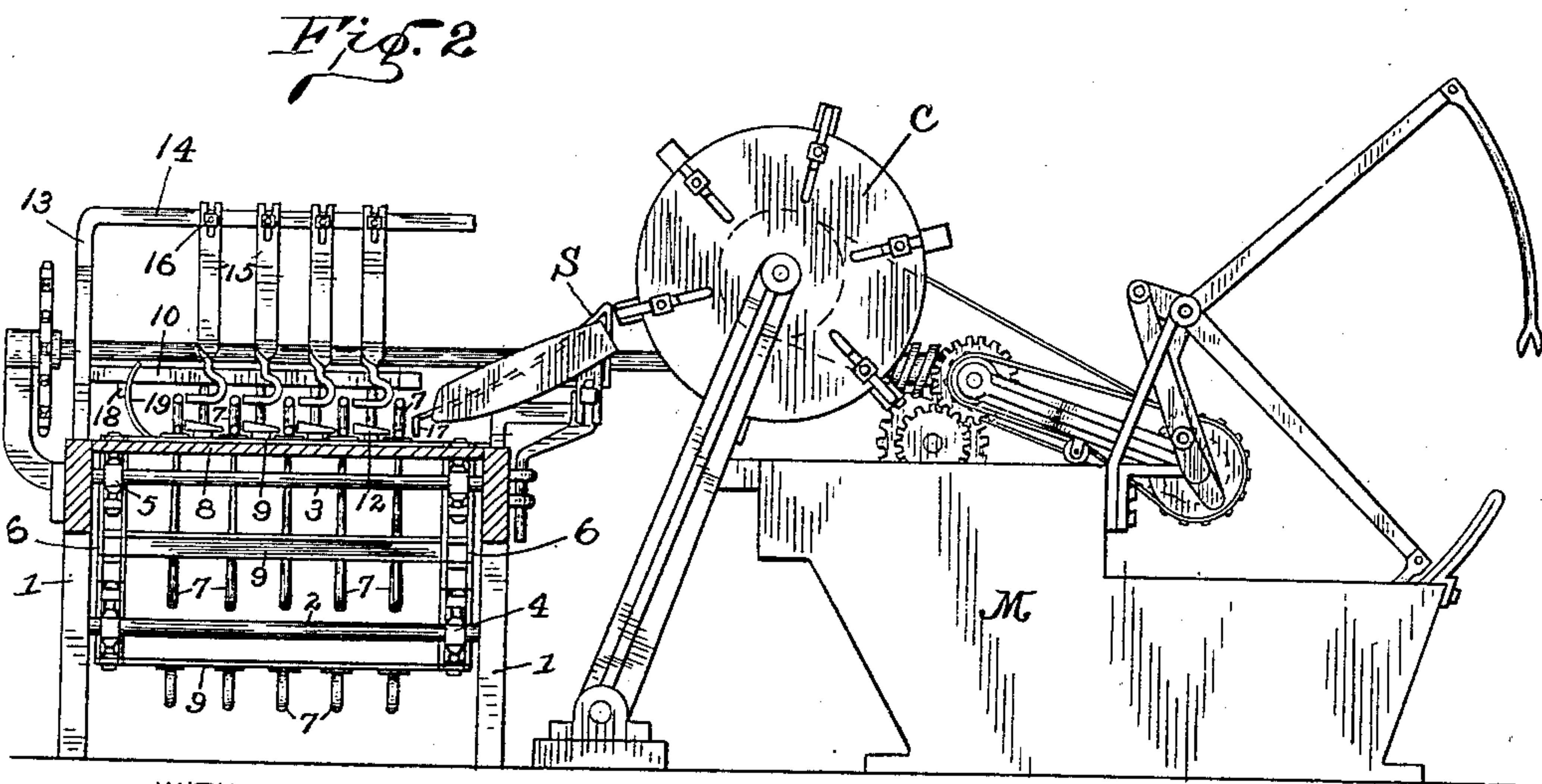
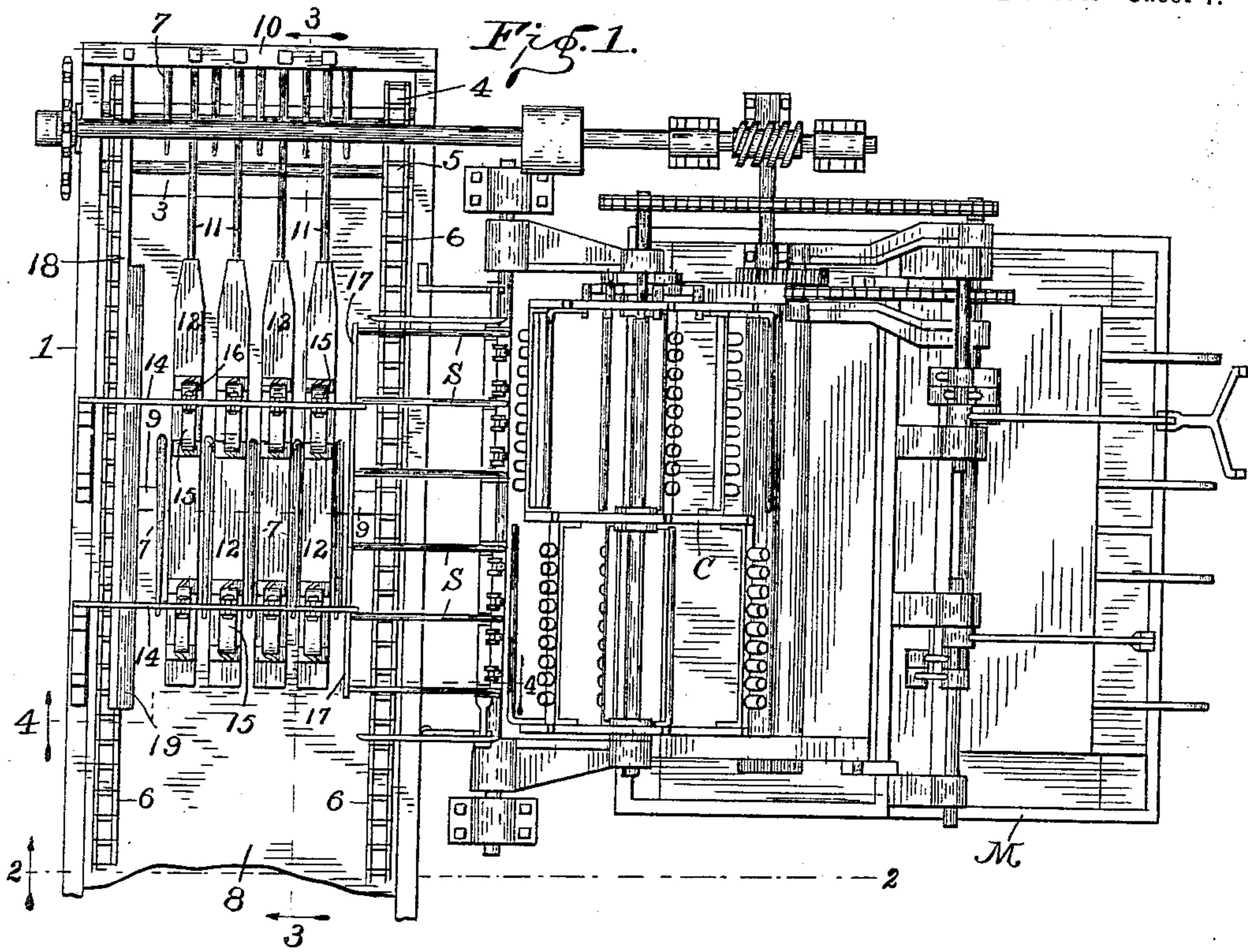
C. W. BENNETT.

CARRYING-OFF TABLE FOR METAL PLATES.

(Application filed Oct. 22, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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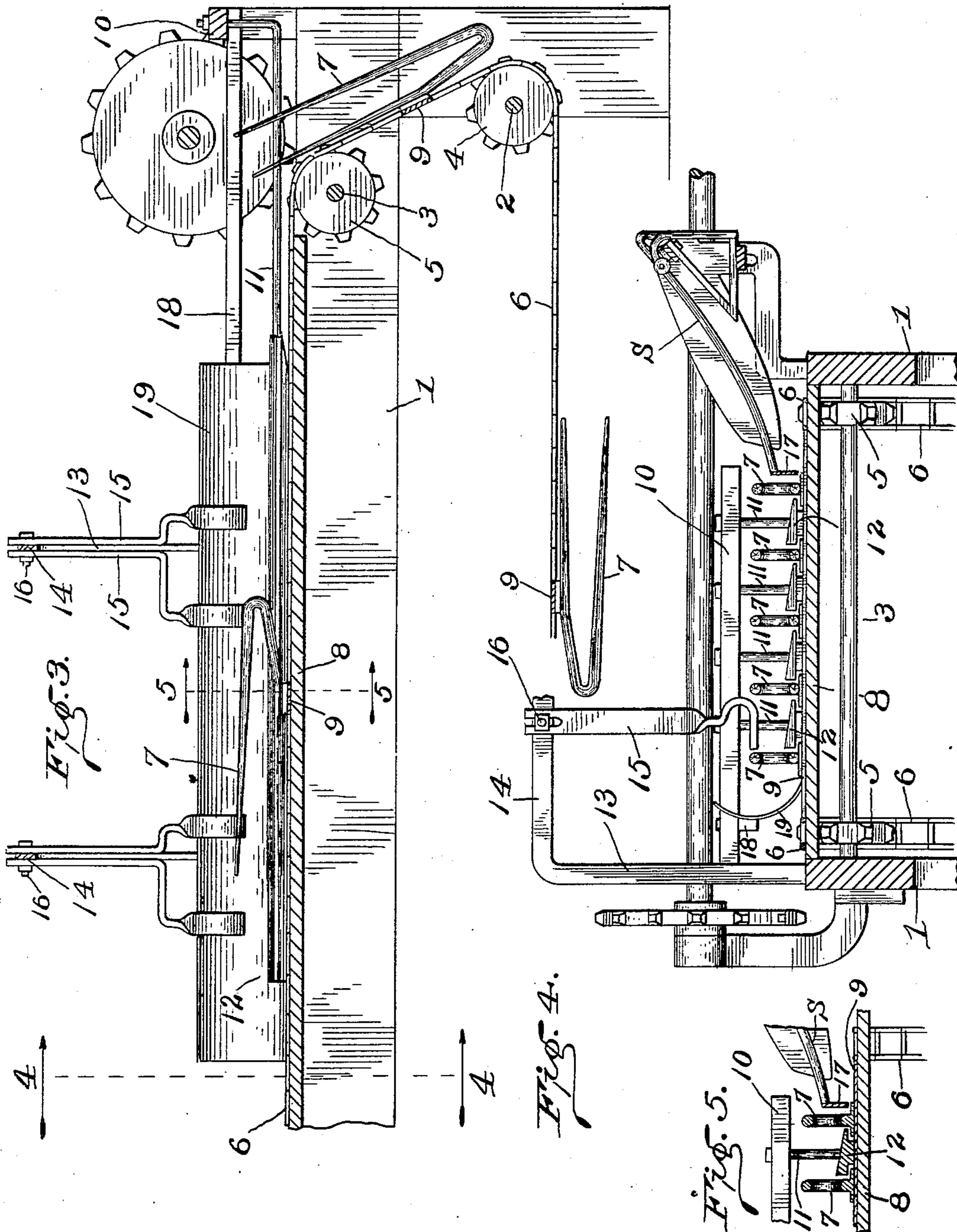
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CARRYING-OFF TABLE FOR METAL PLATES.

(Application filed Oct. 22, 1900.)

(No Model.)

2 Sheets—Sheet 2.



UNITED STATES PATENT OFFICE.

CHARLES W. BENNETT, OF ELWOOD, INDIANA, ASSIGNOR TO THE AMERICAN
TIN PLATE COMPANY, OF SAME PLACE AND NEW YORK, N. Y.

CARRYING-OFF TABLE FOR METAL PLATES.

SPECIFICATION forming part of Letters Patent No. 677,056, dated June 25, 1901.

Application filed October 22, 1900. Serial No. 33,989. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. BENNETT, a citizen of the United States, residing at Elwood, in the county of Madison and State of Indiana, have invented certain new and useful Improvements in Carrying-Off Tables for Metal Plates, of which the following is a specification.

The object of my said invention is to provide an improved table for carrying off plates or sheets, such as tin plates, as they come from machines, such as plating or shearing machines, where they have been plated, sheared, or otherwise treated.

A machine embodying my said invention will be first fully described, and the novel features thereof then pointed out in the claims.

Referring to the accompanying drawings, which are made a part hereof, and on which similar reference characters indicate similar parts, Figure 1 is a top or plan view of a tinning-machine, an automatic catching and delivering device, and a carrying-off table therefor, which said table embodies my present invention; Fig. 2, a transverse sectional view of the table, together with a side elevation of the tinning-machine and catcher, as seen from the dotted line 2 2 in Fig. 1; Fig. 3, a detail longitudinal vertical sectional view of the carrying-off table, on an enlarged scale, as seen from the dotted line 3 3 in Fig. 1; Fig. 4, a detail transverse sectional view of said table as seen from the dotted line 4 4 in Fig. 3, the same being in most respects similar to a portion of Fig. 2, but on an enlarged scale; and Fig. 5, a detail sectional view as seen from the dotted line 5 5 in Fig. 3.

The tinning-machine M and the automatic catcher C are or may be of any desired construction. As the same form no part of my present invention, being shown merely for purposes of illustration they will not be further described herein except incidentally in describing said invention. It may be said generally, however, that the assemblage of machines shown is that used by me in the manufacture of tin-plate, where the plates are tinned or plated in the machine M, seized when they emerge from the rolls of such machine by the catcher C, and by said catcher

delivered to the slides S, and thence to my improved carrying-off table, which receives said sheets or plates and disposes of them in the manner which will be hereinafter described. The mechanism of this table is mounted upon a suitable frame 1, which is provided with bearings for the carrier-belt shafts 2 and 3, (of which only those of one end of the table are shown,) which shafts carry sprocket-wheels 4 and 5, over which a link belt 6 runs, which link belt carries hooks 7, which engage with and carry away the sheets or plates. At its operative point the link belt 6 runs over the table-bed 8, the transverse bars 9 on said link belt, to which the hooks 7 are immediately connected, resting directly on said table-bed. At the front end of the table there is a transverse bar 10, to which a number of rods 11 are connected, which extend down over and just above the table-bed 8, and the transverse bars 9 on the link belts 6 pass between said rods and said table-bed, while the hooks 7 pass up between said rods. These rods are prolonged to past the point where the sheets are delivered onto the table, and the sheet-receiving portions 12 are widened out and tapered transversely, as is best shown in Fig. 5. The thin edges of these parts 12 point toward the direction from which the sheets come and extend below the upper surface of the lower prongs of the hooks 7, while the thicker edges extend to above said surfaces. By this means, as will be readily understood by an inspection of the drawings, especially Fig. 4, the sheets are caused to slide across the extensions 12 of the rods 11 without coming in contact with the hooks 7, so that they rest on said rods free from the carrier-belt until the hooks come along and draw them away.

On the opposite side of the table from that where the sheets are delivered thereto are standards 13, having arms 14, which extend out over the table, and from these arms extend downwardly and develop into feet and are adjusted to positions between the hooks 7, with their lower surfaces just below the lower surfaces of the upper prongs of said hooks, at the highest point of said prongs. These foot-like lower ends serve to prevent the edges of the sheets of tin being delivered

to the table from raising up between the several hooks. In other words, those portions of the bars 11 which are wedge-shaped in cross-section and the feet on the lower ends of these bars 15 confine the sheets within the space where they are designed to go before being drawn away by the hooks, and said sheets are thus held in position to be properly engaged by said hooks. The bars 15 are adjustable on the arms 14 by means of bolts 16, as will be readily understood upon an examination of Fig. 4 of the drawings.

The slides S are so positioned as to receive the sheets from the catcher C and deliver them onto this table, and at the lower end of said slides a side board 17 is connected thereto, which holds the sheets to the position to which they are delivered on the table. At the opposite side, carried by a frame piece or bar 18, is another side board 19, preferably curved somewhat in cross-section, as shown, and the lower edge of which extends down to below the level of the lower prong of the hooks 7, which side board is designed to stop the sheets from sliding too far. In other words, the sheets when on the table must rest between the side boards 17 and 19 so long as they are on the parts 12. After they are drawn off said bars they are sufficiently held in place by frictional contact with the hooks 7.

I thus provide means for receiving and guiding the sheets onto the table which insure that the sheets shall pass to the place desired without any possibility of the edges or corners catching in any of the adjacent parts and so that they shall be regularly and successively engaged by the traveling carrier and drawn off to the "branner" or elsewhere, as may be desired, without attention on the part of the operator and without danger of the sheets becoming bent or marred.

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

1. The combination, in a carrying-off table for metal sheets, of the table structure, an endless carrier provided with hooks passing over the same, receiving-bars extending down over the carrier and between the hooks to receive the plates the surfaces whereof are above the upper surfaces of the lower prongs of the hooks, and arms arranged above the carrier having feet which extend down to below the lower surfaces of the upper prongs of the

hooks, whereby the sheets are guided to position to be engaged and drawn away by said hooks. 55

2. The combination, in a carrying-off table for metal sheets, of the table structure, a traveling carrier provided with hooks passing over said structure, and stationary bars extending down over said carrier between said hooks to receive the sheets as they are delivered onto the table, said bars being wedge-shaped in cross-section with their edges pointing in the direction from which the sheets come, substantially as set forth. 65

3. The combination, in a carrying-off table for metal sheets, of the table structure; an endless carrier traveling over the same, said carrier being composed of belts running along the edges of said table, transverse bars extending between the same and hooks mounted on said bars; and stationary bars extending down over the transverse bars of the carrier between the hooks thereof and forming the receiving portion of the table onto which the sheets are automatically delivered and from which they are drawn by the hooks of the carrier. 75 80

4. The combination, in a carrying-off table for metal sheets, of the table structure, an endless carrier provided with hooks running over the same, and adjustable arms arranged above the carrier and provided with feet which extend down between the hooks to a point just below the under side of the upper prongs thereof, whereby the sheets as they are delivered onto the table are prevented from rising up over said upper prongs as they are sliding across the carrier, substantially as set forth. 85 90

5. The combination, in a carrying-off table for metal sheets, of the table structure, an endless carrier passing over the same, supporting devices extending over said table structure above the body of the carrier, and guiding devices for the sheets being handled arranged above and at the sides of said carrier, substantially as and for the purposes set forth. 95 100

In witness whereof I have hereunto set my hand and seal at Elwood, Indiana, this 17th day of October, A. D. 1900.

CHARLES W. BENNETT. [L. S.]

Witnesses:

F. M. STRONG,
G. A. HUZZEY.