

1,252,562.

C. FASSINGER.
FEEDING APPARATUS.
APPLICATION FILED MAY 26, 1917.

Patented Jan. 8, 1918.

2 SHEETS—SHEET 1.

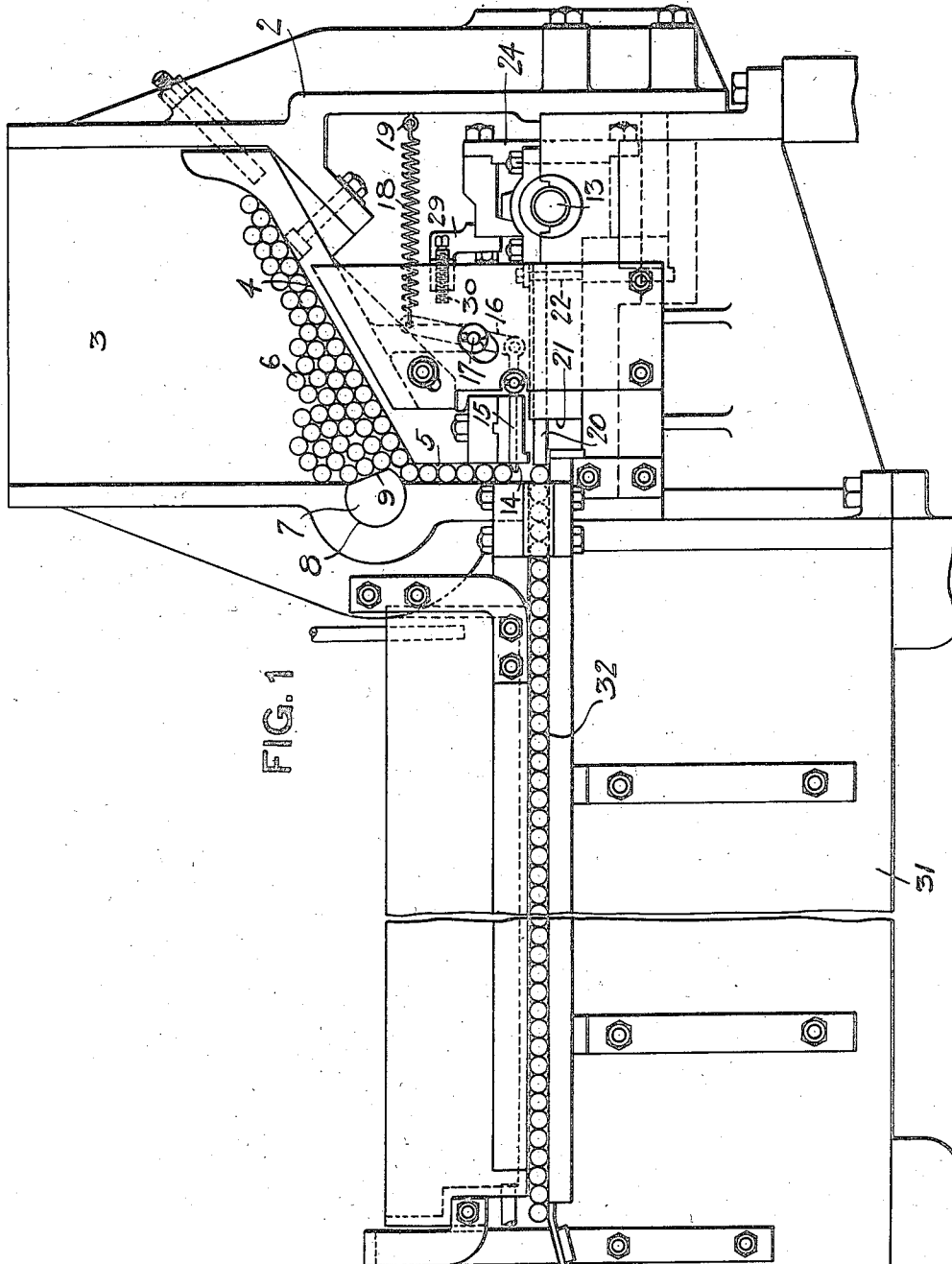


FIG. 1

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FIG. 3

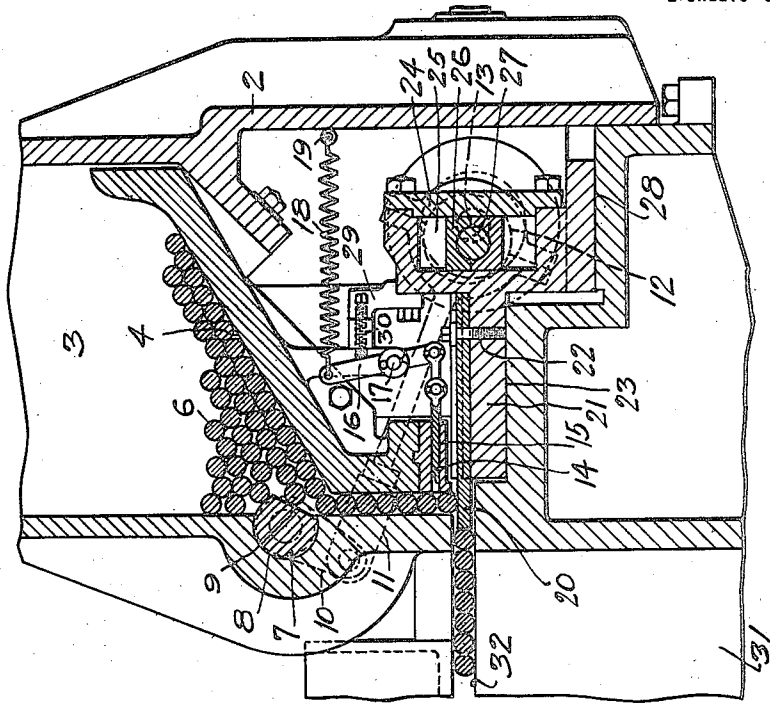
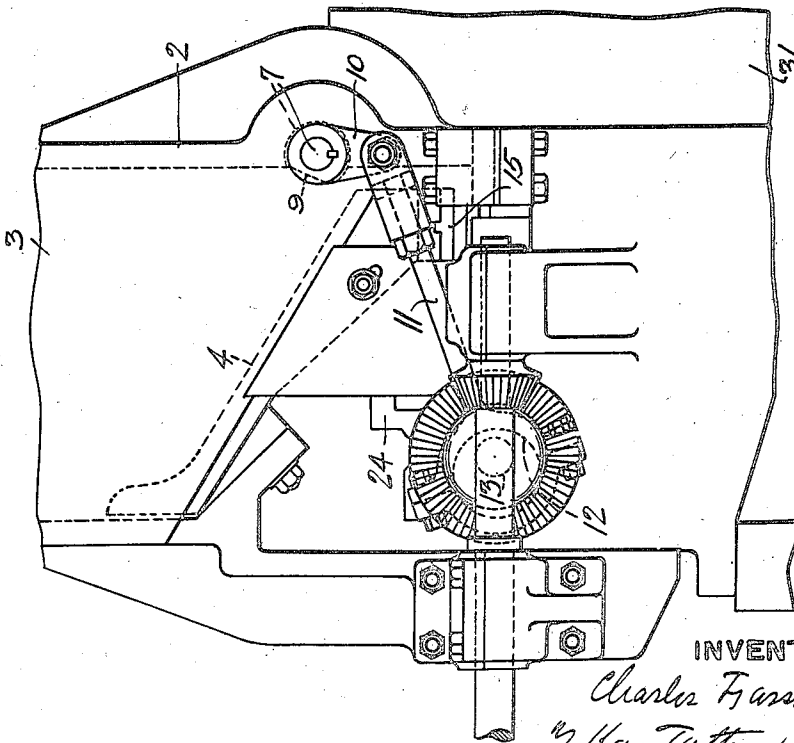


FIG. 2



INVENTOR

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UNITED STATES PATENT OFFICE.

CHARLES FASSINGER, OF PITTSBURGH, PENNSYLVANIA, ASSIGNOR TO OLIVER IRON & STEEL COMPANY, OF PITTSBURGH, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

FEEDING APPARATUS.

1,252,562.

Specification of Letters Patent.

Patented Jan. 8, 1918.

Application filed May 26, 1917. Serial No. 171,186.

To all whom it may concern:

Be it known that I, CHARLES FASSINGER, a citizen of the United States, and resident of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Feeding Apparatus; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to feeding apparatus, and more particularly to the feeding of round metal bars from a hopper where the bars are to be fed singly from the hopper to a passageway communicating therewith to be delivered to apparatus for performing certain operations on said bars.

The object of the invention is to provide for the proper delivery of the bars one by one from the hopper into said passageway and to prevent their congestion around the mouth of said passageway so as to prevent their being properly delivered thereto.

To these ends my invention comprises the novel features hereinafter set forth and claimed.

In the accompanying drawing, Figure 1 is a side elevation partly in section, of my invention as applied in connection with a blank-heating furnace; Fig. 2 is a side view; and Fig. 3 is a vertical sectional view.

In the drawing, the numeral 2 designates a suitable frame which carries a hopper 3. This hopper is provided with the inclined bottom 4. At the foot of the inclined bottom 4 is the passage 5 of just sufficient width to admit of one of the round bars or blanks 6. Arranged adjacent to the bottom of the hopper is the combined agitator and guide 7, which is circular in form and fits in the correspondingly shaped recessed seat 8 in the rear wall 3^a of the hopper. This agitator 7 extends preferably the entire width of the hopper and is provided with the flat face 9 adapted to engage the bars contained within the hopper and keep them in proper alignment so as to allow them to be delivered one by one to the passage 5. Accordingly, the agitator 7 is so located with reference to the inclined bottom 4 that the space between the lower edge of the flat face of said agitator and the inclined bottom will only permit of the passage of one blank at a time to the passage 5.

In order to impart oscillating movement to the agitator 7, the end of the agitator is

connected up by the crank-arm 10 with the pitman 11, which is connected to the eccentric 12 mounted on the shaft 13. It will be observed that the agitator 7 is so arranged with reference to the inclined bottom 4 of the chute that there will be room for one of the bars 6 to pass clear of or under the agitator, as clearly indicated in Figs. 1 and 3. In this manner only one bar at a time can be in position to enter the passage, and in this way clogging up of the passage or interference of the bars with one another in passing to said passage is obviated.

Extending into the passage 5 is the temporary supporting shelf 14, which is adapted to slide back and forth in the guide 15, said shelf being connected at its inner end to the lower end of the lever 16 pivoted at 17. A spring 18 is connected to the upper end of the lever 16 and to the frame as at 19.

A pusher 20 is provided at the lower end of the passage 5 which is in position to advance the bars as they pass down through the passage 5. This pusher is mounted on the guide-block 21, being secured thereto by the screws 22. This guide-block 21 moves on the guide 23, and said guide-block forms part of the reciprocating frame 24. This frame 24 has the opening 25 within which is the bearing-block 26, which engages the crank 27 on the shaft 13. The frame 24 is adapted to move back and forth on the guide 28.

A bracket 29 is connected to the frame 24, and said bracket carries the finger 30, which is adapted to engage the upper end of the lever 16 when the frame 24 is advanced, as indicated in Fig. 3.

I have illustrated my invention in connection with the feeding of blanks to a furnace, which is indicated at 31, said furnace being provided with the slotted opening 32 through which the blanks or bars 6 are moved by the action of the pusher 20. As the furnace, however, forms no part of the present invention, it is not deemed necessary to illustrate or describe the same in detail.

In operation, the bars 6 are delivered to the hopper 3, and when power is applied to rotate the shaft 13, an oscillatory movement is imparted to the agitator 7, and as said agitator oscillates it moves the lot of bars contained within the hopper and its action will be to move said bars so that they are gradually brought into position on the in-

clined bottom 4 of the hopper so as to move one by one into the passage 5 from the said hopper, the space between the inclined bottom and the lower edge of the flat face 8 of the agitator being just sufficient to admit of the passage of a bar, as clearly indicated in Figs. 1 and 3; and in this way, only the bars moving down the inclined bottom 4 can get into the passage 5 and the bars on top are shuffled or moved back and forth until they in turn drop onto the bottom 4 and roll down into the passage 5.

The shelf 14 forms a temporary support for the bars in the passage 5, and supports the bars while one is being advanced by the pusher 20. Just as soon as the pusher starts to advance, the shelf withdraws and a bar drops down on top of the pusher in its advanced position, as clearly shown in Fig. 3, whereupon by the withdrawal of the pusher, the bar supported therein drops down into position in front of the pusher while the shelf advances at the same time to support the bars in the passage, as clearly indicated in Fig. 1.

The withdrawal of the supporting shelf is effected by the engagement of the finger 30 with the lever 16 when the frame 24 carrying the pusher is advanced, and when the said frame is withdrawn the spring 19 advances the shelf to support the bars.

By my invention I provide a very simple and effective form of feeding device by means of which the bars are fed from the hopper one by one and are so distributed

within the hopper as to prevent their interfering with each other in passing from the hopper, and only one bar at a time can enter the delivery passage.

What I claim is:

1. In a feeding apparatus, the combination of a suitable hopper having an inclined bottom, a passage communicating with said hopper at the lower end of said bottom, and a rounded agitator fitting in a correspondingly-shaped seat at the lower end of said hopper and extending across the same, with a space between the cylindrical surface of said agitator and said bottom for the passage of only one article at a time to said passage, and means for oscillating said agitator.

2. In a feeding device, the combination of a hopper having an inclined bottom and a passage communicating with said hopper at the lower end of said bottom, and an oscillatory rounded agitator fitting in a recess in the rear wall of said hopper extending across said hopper and having a flat face, the lower edge of said flat face extending beyond said recess and forming a space between said bottom sufficient for the passage of only one article at a time to said passage.

In testimony whereof, I the said CHARLES FASSINGER, have hereunto set my hand.

CHARLES FASSINGER.

Witnesses:

ROBT. D. TOTTEN,
JOHN F. WILL.