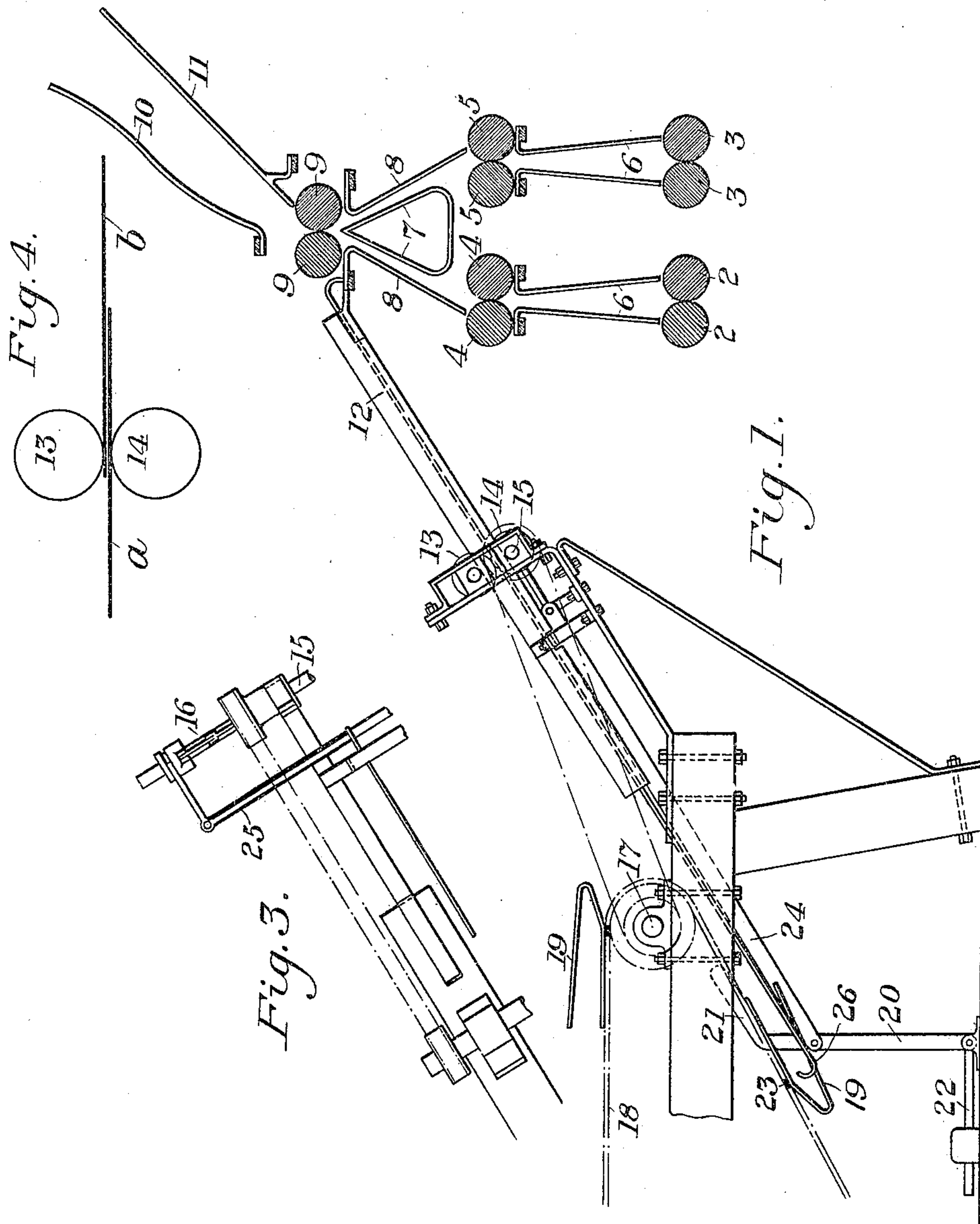


No. 822,699.

PATENTED JUNE 5, 1906.

L. C. STEELE.
BRANNER FEEDING DEVICE.
APPLICATION FILED SEPT. 5, 1905.

2 SHEETS—SHEET 1.



WITNESSES
R. A. Balderson
G. B. Blumling

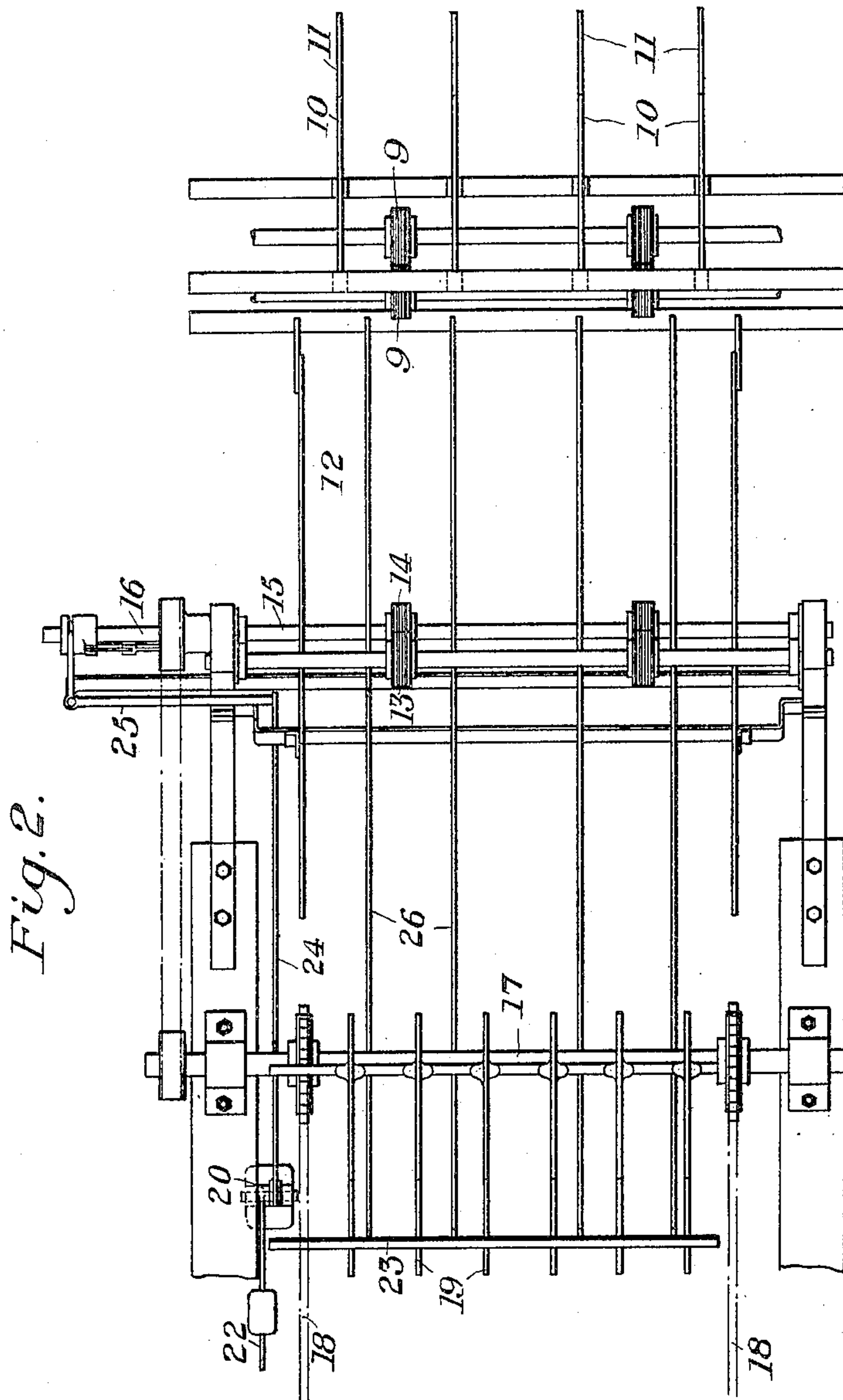
INVENTOR
L. C. Steele
by R. A. Balderson & Co.
his attys

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WITNESSES

R. A. Alderson.
G. B. Blumling

INVENTOR

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UNITED STATES PATENT OFFICE.

LAWRENCE C. STEELE, OF WHEELING, WEST VIRGINIA, ASSIGNOR TO
AMERICAN SHEET & TIN PLATE COMPANY, OF PITTSBURG, PENN-
SYLVANIA, A CORPORATION OF NEW JERSEY.

BRANNER FEEDING DEVICE.

No. 822,699.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed September 5, 1905. Serial No. 276,948.

To all whom it may concern:

Be it known that I, LAWRENCE C. STEELE, of Wheeling, Ohio county, West Virginia, have invented a new and useful Branner Feeding Device, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a sectional side elevation of apparatus constructed in accordance with my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a detail view of the clutch mechanism, and Fig. 4 is a diagrammatic view showing the manner of feeding.

My invention relates to the feeding of sheets from a tin-plate catcher into a branner, and is designed to provide a simple and effective mechanism for delivering a sheet singly and successively to the branner-hooks.

The apparatus is more especially designed for a duplex tin-plate catcher, though it may be employed with different types of catchers.

In the drawings, 2 2 and 3 3 represent the tinning-rolls of a duplex tinning-pot, and 4 4 and 5 5 the corresponding catcher-rolls, which are provided with disks of soft material. Guide-fingers 6 direct the rising sheets upwardly between the catcher-rolls. From the catcher-rolls 4 and 5 the sheets are directed inwardly and upwardly by the guides 7 and 8 to the upper catcher-rolls 9 9, which are also preferably provided with disks faced with soft material. The successive sheets pass upwardly through the rolls 9, feed up between the inclined guides 10 and 11, and thence slide down the inclined chute 12. This chute is preferably provided with a grated or skeleton bottom, and intermediate of its length are placed the disk rolls 13 and 14. The shaft 15 of the lower roll is extended and positively driven through a clutch connection 16, while the upper roll is driven by friction. These disk rolls are also preferably faced with soft material, though they may be provided with hard disks, if desired. Over the lower end of the chute is the shaft 17, carrying the sprocket-wheels for the chains 18, to which the branner-fingers 19 are secured. The branner-hooks pass between the bars of the table in their movement. At the lower end of the chute is mounted a lever 20, having a bent upper portion 21 and normally held in vertical position by a weighted arm

22. The cross-bars 23, to which the hook-fingers are secured, are arranged to press upon the lever 20 and depress it as long as the cross-bar contacts with the part 21 of the lever. During this period the lever 20 acts, through link 24 and bell-crank 25, to force the clutch 16 into engagement, and thus drive the rollers 13 and 14. After the bar 23 passes the cam-lever 21 the weight 22 will return the lever and withdraw the clutch, thus stopping further movement of the disk rolls.

In the operation of the device the sheets rise alternately through the pairs of catcher-rolls 4 and 5 and slide successively down the chute 12. The sheet sliding down enters the rolls 13 14 and is stopped thereby until the hook-bar acts upon the cam-lever to turn the rolls as the hook takes out the sheet, which is dropped down into the stationary hooks 26. This serves to feed the sheet downwardly through the rollers for about one-half its length. It will then stop at the position shown at *a* in Fig. 4. The next sheet (marked *b*) will then slide down into the nip of the rollers and stop until the next cross-bar on the branner feed acts upon the cam-lever 20. The rollers will then again be turned, feeding the sheet *a* downwardly, so that it slides into the bottom stationary hooks, while the sheet *b* is fed forward about one-half of its length. This action is repeated during the operation of the machine.

The advantages of my invention result from the simple and positive device for preventing two sheets from entering the same branner-fingers. The device is not liable to get out of order and will efficiently handle the ready output of a duplex machine.

Many changes may be made in the form and arrangement of the parts without departing from my invention.

I claim—

1. In a branner feeding device, an inclined chute, a pair of rollers intermediate of its length, and means for intermittently rotating the rollers; substantially as described.

2. In a branner feeding device, an inclined chute, a pair of rollers intermediate of its length, a branner-chain, and connections controlled by the branner-chain for intermittently rotating the rollers; substantially as described.

3. In a branner feeding device, an inclined

chute having stationary hooks at its lower end, rollers located at an intermediate part of the chute, a branner-feed having hooks moving between the stationary hooks, and a
5 clutch-drive for the intermediate rollers controlled by the movement of the branner-hooks; substantially as described.

4. In a branner feeding device, an inclined chute, a pair of feed-rolls therein, and means

for rotating said rolls to feed a sheet a part of its length only; substantially as described.

In testimony whereof I have hereunto set my hand.

LAWRENCE C. STEELE.

Witnesses:

S. H. WILDEBUSCH,
E. L. QUIMBY.