

S. C. COX.
SLUG OR LINOTYPE DISTRIBUTER FOR ADDRESSING MACHINES.
APPLICATION FILED SEPT. 12, 1907.

1,054,393.

Patented Feb. 25, 1913.

3 SHEETS—SHEET 1.

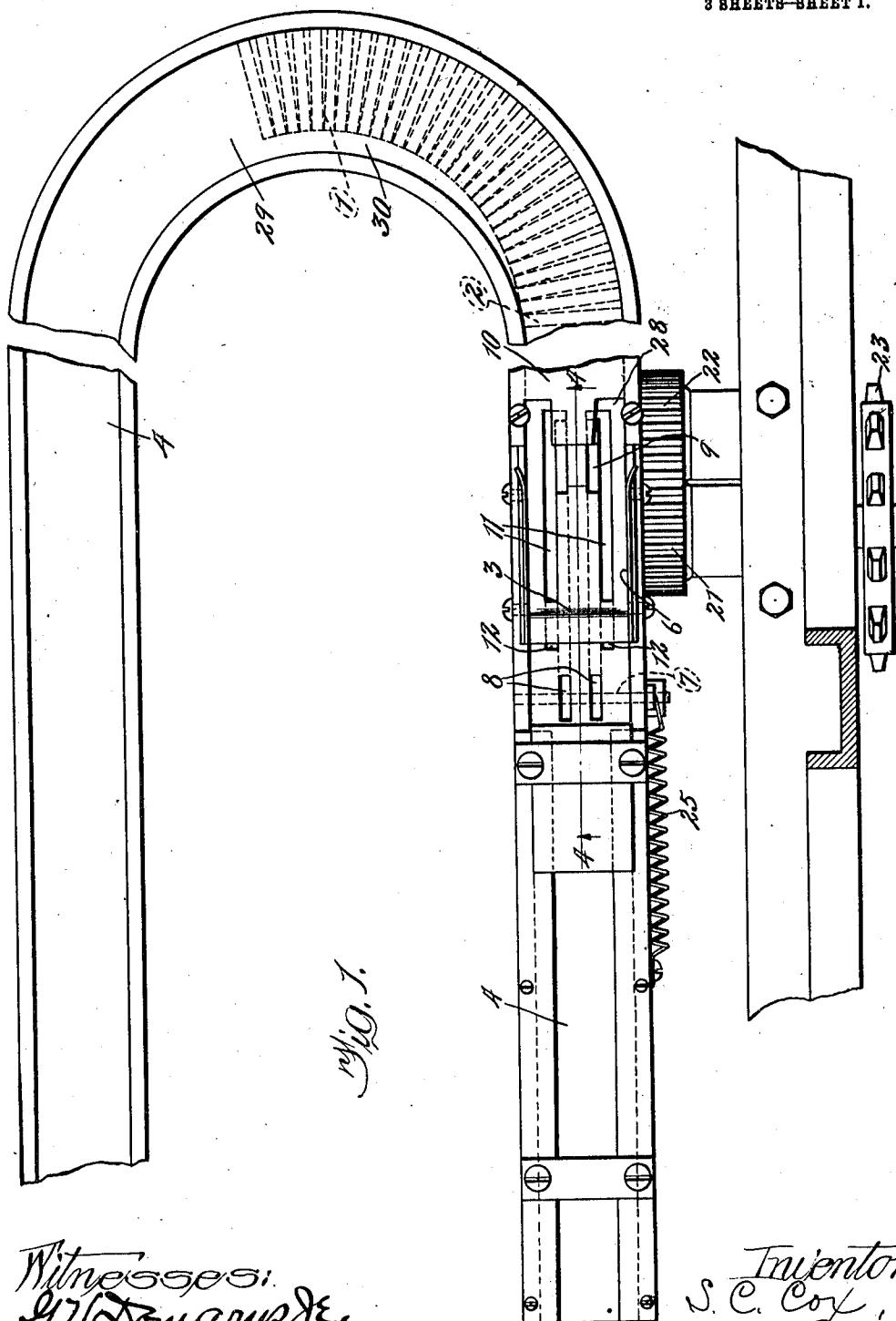


Fig. 1.

Witnesses:
L. V. Domaruz Jr.
J. Gochum, Jr.

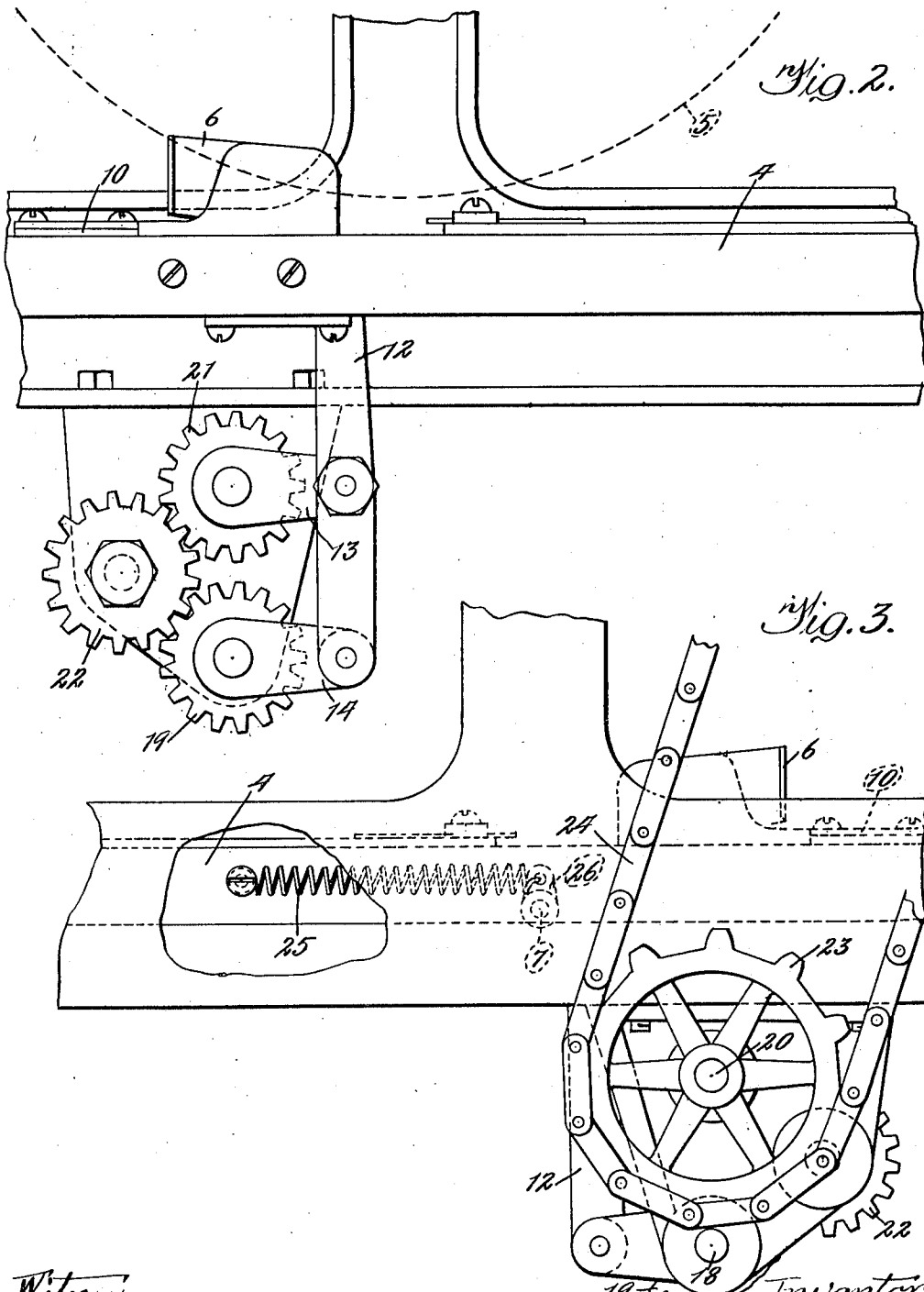
Inventor:
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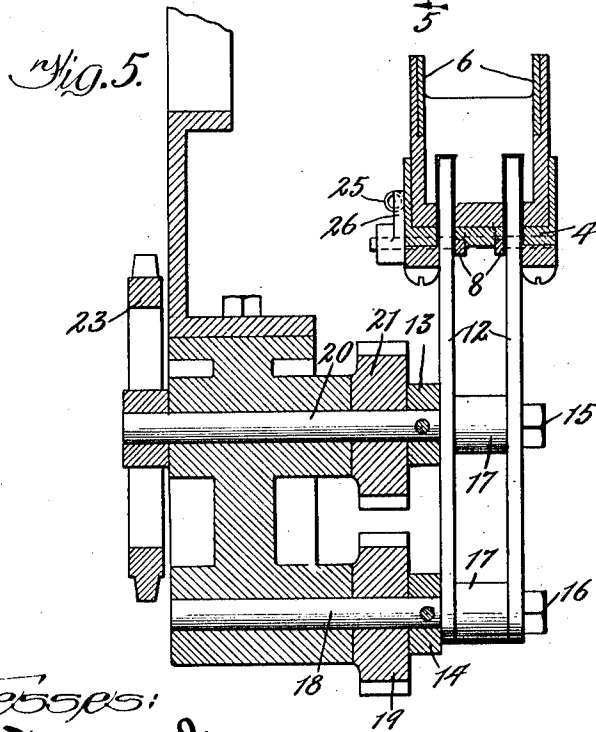
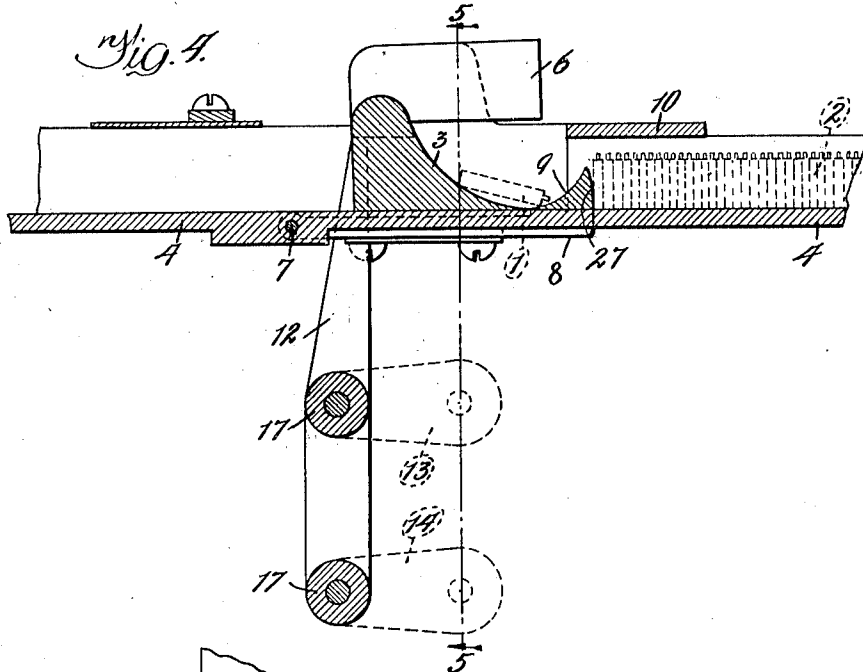
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

SANDFORD C. COX, OF BROOKLINE, MASSACHUSETTS, ASSIGNOR TO COX MULTI-MAILER COMPANY, OF AUGUSTA, MAINE, A CORPORATION OF MAINE.

SLUG OR LINOTYPE DISTRIBUTER FOR ADDRESSING-MACHINES.

1,054,393.

Specification of Letters Patent.

Patented Feb. 25, 1913.

Application filed September 12, 1907. Serial No. 392,431.

To all whom it may concern:

Be it known that I, SANDFORD C. COX, a citizen of the United States, residing at Brookline, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Slug or Linotype Distributers for Addressing-Machines, of which the following is a specification.

10 The present invention is designed as an improvement upon the addressing machine shown and described in my application for United States Letters Patent, Serial No. 195,869, filed February 29th, 1904, in which
15 the newspapers or other articles have the addresses imprinted thereon from slugs or linotypes which are carried in the slug carrier or drum during the printing operation and are thereafter dropped out of the drum
20 or carrier and are replaced or distributed in their proper order in a receiving galley ready to be again placed into the machine for use, and this invention has for its primary object to provide an improved and
25 efficient means for thus distributing or replacing the slugs in the receiving galley accurately and positively.

The further object is to provide an improved form of receiving galley whereby the
30 used slugs may be removed from the same end of the machine into which the new slugs are placed for use.

A further object is to provide an improved form of receiving galley having a return
35 bend of a greater width than the width of the remaining portion of the galley.

To the attainment of these ends and the accomplishment of other new and useful objects as will appear, the invention consists
40 in the features of novelty in the construction, combination, and arrangement of the several parts hereinafter more fully described and claimed and shown in the accompanying drawings illustrating an exemplification of the invention, and in
45 which—

Figure 1 is a plan view of an improved slug distributor and galley constructed in accordance with the principles of this invention, Fig. 2 is a detailed side elevation
50 thereof, Fig. 3 is a detailed side elevation looking from the opposite side; Fig. 4 is a detailed sectional view on line 4—4 of Fig. 1, and Fig. 5 is a transverse sectional view
55 on line 5—5 of Fig. 4.

The used slugs, some of which are shown at 1, 2, are allowed to fall upon an incline or chute 3, which is arranged in one end of the receiving galley 4. The means for thus dropping the slugs upon the chute or incline 3 constitutes no part of the present invention, and a description thereof is not necessary since the operation of the distributor would be the same if the slugs were
60 dropped upon the incline by hand, but the curved dotted line 5 nevertheless may represent the sweep of the slug drum or other means in which the slugs are carried and dropped upon the chute, which is provided
65 with side plates 6, if desired, to insure that the slug will properly lodge in the chute. Secured to the rocker shaft 7 under the chute 3 are two arms 8 arranged in a horizontal position and provided at their free ends with
70 inclines or curved projections 9 which are preferably formed on a gradual curve extending upwardly from the extreme lower end of the chute toward the top of the galley 4 and situated above these projections 9 is a
75 plate 10 which is secured across the galley at such an elevation from the bottom thereof as to permit the slugs 2 to pass under it. The bottom of the chute 3 is provided with
80 two longitudinal slots 11 into which the upper ends of two slug pushing fingers 12 project upwardly, which fingers are preferably arranged perpendicular to the bottom of the galley. These fingers 12 are
85 given a revolving motion toward and from the inclines or projections 9 by any suitable means such, for instance, as a pair of crank arms 13—14, to which the fingers 12 are
90 secured by pins 15, 16, and held apart by suitable spacers 17. One of these crank arms is mounted upon a shaft 18, to which is secured a pinion 19, and the other upon a shaft
95 20 to which is secured a pinion 21, and the two pinions are geared together by an idler 22. The shaft 20 is provided with a sprocket 23 so that it may be driven by chains 24 or
100 by any other suitable driving means so that as the shaft 20 is rotated, the fingers 12 will produce a revolving movement toward and from the inclines or projections 9 and will push the slugs along the chute 3 and up said
105 inclines 9, the slugs being dropped into the chute with their printing faces downward, so that as they are pushed along the chute and up the inclines 9 by the fingers 12, they will be turned face upwardly in the galley 110

4, the combined action of the fingers 12 and the inclines 9 upon the slug being to push the end of the slug up into the corner produced by the last slug in the galley 4 and the plate 10, which serves as a stop for the upward movement of the slug, and then as the upward movement of the slug is thus arrested by the plate 10 and the last slug, the fingers 12 continue to push the lower end of the slug into the galley 4, and thereby depress the projections 9 into a position below the bottom of the galley, allowing the slug to assume a perpendicular position in the galley 4 at a point beyond the ends of the projections 9. The fingers 12 maintain contact with the lower end of the slug until it has entirely passed over the projections 9 so that when this occurs, the projections 9 are again raised by any suitable means, such as a spring 25 attached to the crank arm 26 on the rocker shaft 7, the forward ends of the projections 9 being preferably curved on an arc 27 concentric with the shaft 7, so that the projections may rise in close relation to the last slug after the fingers have pushed such slug entirely over them, and also pushed all of the other slugs along the galley 4 a distance equal to the width of the last slug introduced.

With the means described, it will be seen that inasmuch as the revolution of the fingers 12 may be gradually and definitely timed with relation to the mechanism, whatever that may be, for dropping the slug into the chute 3, the fingers may be caused to engage the slugs one at a time as they fall into the chute and gradually place each one in its proper position in the galley 4, it being understood that the movement of the fingers 12 in one direction into the galley 4 is above the bottom of the chute 3 so as to engage the slug resting thereon, while its return movement is preferably beneath such bottom so as to avoid engaging the slug should it arrive in the chute before the fingers complete their return movement.

As shown in Fig. 1 of the drawings, the stop plate 10 is provided with slots or notches 28, for the passage of the fingers 12 beyond the edge of the plate 10 in order to enable them to push the slug beyond the projection 9.

The receiving galley 4, as shown in Fig. 1, is provided with a return bend 29 so that the direction of movement of the slugs induced by the action of the fingers 12 will be reversed and the slugs may be removed from the galley 4 from the same end of the machine in which they were introduced, assuming that end to be the left hand end, as shown in Fig. 1.

The slugs 1 are deposited in the receiving end of the galley 4 on one end, and in such position that the side faces thereof will be in contact with each other and the slugs will

extend substantially across the galley. In order to permit the slugs to be properly advanced, and to assume the proper position to pass through the return bend 29, the bend is of a width slightly greater than the width of the remaining portion of the galley. As the slugs advance through the bend 29, the edges along one side of the slugs will impinge against each other, while the opposite ends of the slugs will be slightly separated as shown in Fig. 1. The slugs advancing through this portion of the galley will engage and move against the outside wall of the galley and will be slightly spaced from the inside wall thereof, as shown at 30 in Fig. 1 of the drawing.

In order that the invention might be fully understood by those skilled in the art, details of the foregoing embodiment thereof have been thus specifically described, but what I claim as new and desire to secure by Letters Patent is—

1. In a machine for the purpose described, the combination of a galley for receiving the slugs, a depressible incline at the bottom of the galley, a stop for the slugs above said incline, and means movable upwardly into and downwardly from said galley for pushing the slugs lengthwise of the galley and over said incline.

2. In a machine for the purpose described, the combination of a galley for receiving the slugs, means movable upwardly into and downwardly from the said galley for engaging the slugs and pushing them along the galley, and means acting in conjunction with said pushing means during the time the latter is pushing the slugs, and in advance of the said pushing means for directing the slugs into and properly positioning them in the galley.

3. In a machine for the purpose described, the combination with a galley for receiving the slugs, a finger revolving in a plane perpendicular to and below the galley, the extremity of the finger being movable into the galley and through the bottom thereof for engaging the slug and pushing it along the galley, and means acting in conjunction with said finger during the time the finger is pushing the slugs and in advance of the finger for directing the slugs into and positioning them in the galley.

4. In a machine for the purpose described, the combination of a galley for receiving slugs, a depressible incline at the bottom of the galley, a stop for the slug above said incline, and means movable upwardly into and downwardly from said galley for pushing the slug lengthwise of the galley over said incline, and positively acting means for moving the last said means in both directions or toward and from the incline.

5. In a machine for the purpose described, the combination of a galley for receiving

slugs, a depressible incline at the bottom of the galley, a top stop for the slugs above said incline, a slug pushing finger projecting upwardly from the lower end of said incline, and means for revolving said finger in a vertical plane lengthwise of the incline.

6. In a machine for the purpose described, the combination of a galley for receiving slugs, a depressible incline at the bottom of the galley, a top stop for the slug above the incline, a chute leading downwardly to said incline, a pushing finger projecting upwardly through the bottom of said chute for engaging the slugs resting in the chute, and means for revolving said finger in a vertical plane lengthwise of the chute.

7. In a machine for the purpose described, the combination of a galley for receiving slugs, a depressible incline at the bottom of the galley, a top stop for the slug above the incline, a chute leading downwardly to the incline for receiving the slugs, a pushing finger projecting upwardly through the bottom of the incline for engaging the slug thereon, parallel cranks to which said finger is pivoted, and means for revolving said cranks in the same direction.

8. In a machine for the purpose described, the combination of a slug receiving galley having a return bend of a width greater than the width of the remaining portion of the galley, and means at one end of the galley for placing the slugs thereinto and forcing them therealong around said bend.

9. In a machine for the purpose described, the combination of a slug receiving galley having a return bend of a width greater than the width of the remaining portion of the galley and means at one end of the galley for placing the slugs thereinto with their side faces adjacent and in contact with each other, and for forcing them therealong and around said bend.

10. In a machine for the purpose de-

scribed, the combination of a galley for receiving slugs, upwardly curved depressible members arranged in the bottom of the galley and over which the slugs are adapted to be pushed, and means movable upwardly into and downwardly out of the galley for pushing the slugs past said members.

11. In a machine for the purpose described, the combination of a galley for receiving slugs, a chute in said galley upon which the slugs are adapted to fall, a deflectable upwardly turned inverting device in said galley adjacent to said chute and means movable into and out of the galley through the bottom thereof and past said chute for pushing the slugs upwardly over said device and deflecting the latter.

12. In a machine for the purpose described, the combination of a galley for receiving slugs, a downwardly deflectable member curved on one side for holding the slugs upright in said galley, the other side of said member being inclined, and means movable upwardly into and downwardly out of the galley for pushing the slugs up said incline and depressing said member.

13. In a machine for the purpose described, the combination of a galley for receiving slugs, an upwardly inclined depressible member in said galley, means movable upwardly into and downwardly out of said galley for forcing the slugs up said incline, and depressing said member, and a stop arranged at the upper edge of the galley over said incline for limiting the upward movement of the slugs.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 28th day of August A. D. 1907.

SANDFORD C. COX.

Witnesses:

VIRGINIA B. COX,
ALICE R. KELLY.