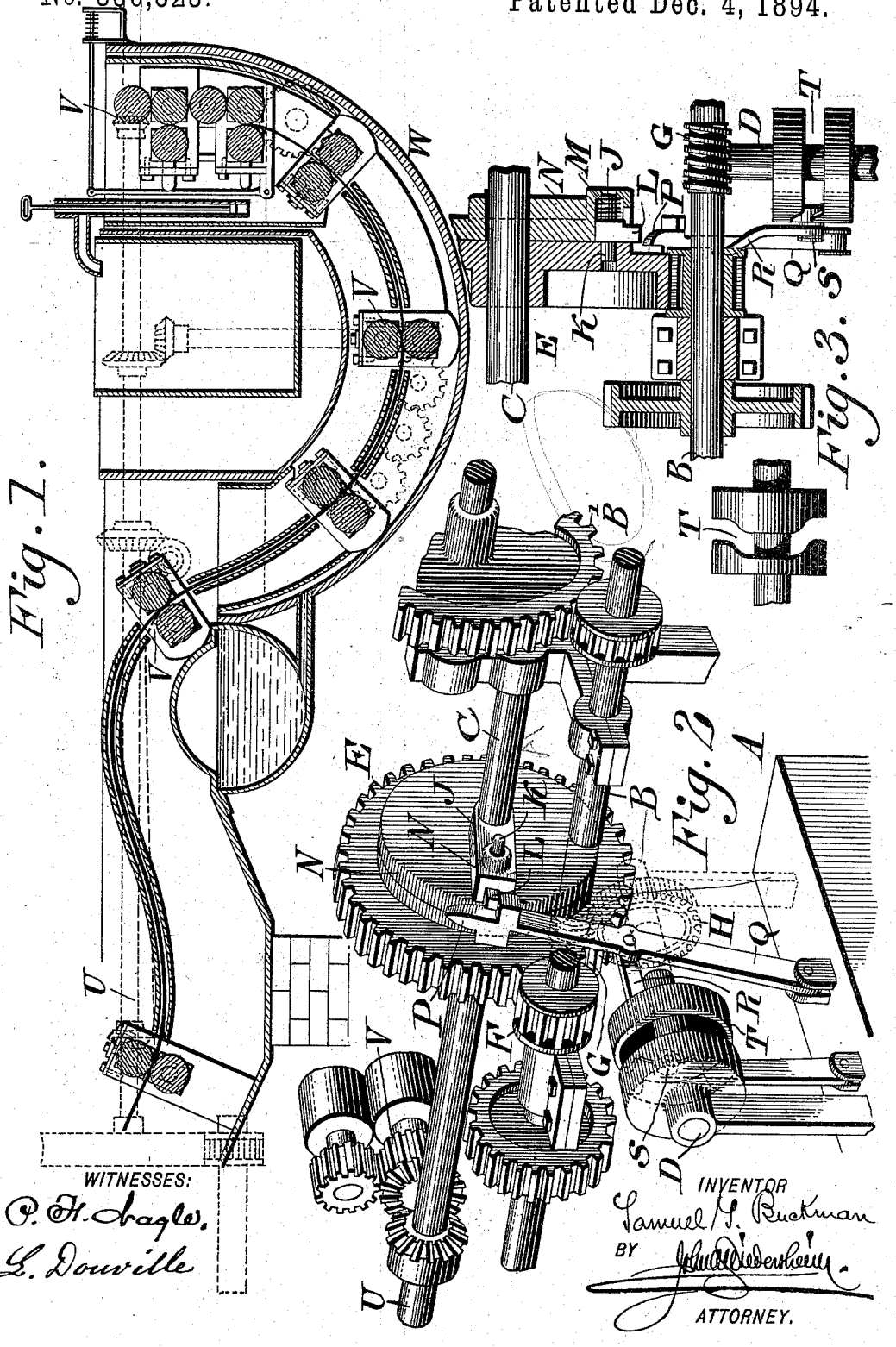
(No Model.)

S. Y. BUCKMAN.

FEEDING DEVICE FOR APPARATUS FOR COATING METAL PLATES.

No. 530,323. Patented Dec. 4, 1894.



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FEEDING DEVICE FOR APPARATUS FOR COATING METAL PLATES.

SPECIFICATION forming part of Letters Patent No. 530,323, dated December 4, 1894.

Application filed June 13, 1894. Serial No. 514,409. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL Y. BUCKMAN, a citizen of the United States, residing at Pottstown, in the county of Montgomery, State of Pennsylvania, have invented a new and useful Improvement in Feeding Devices for Apparatus for Tinning or Coating Sheet-Metal Plates, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of means for feeding sheet metal plates after being edged and connected, into a pot for coating the same with tin or the alloys of the same, or other metal, the feed being at intervals, so that time is afforded for the edging and connecting operation.

Figure 1 represents a longitudinal vertical section of a tinning or coating apparatus embodying my invention. Fig. 2 represents a perspective view of the clutch mechanism of the apparatus on an enlarged scale. Fig. 3 represents a partial top view and partial horizontal section thereof.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings: A designates portions of the frame of the device, on which are mounted the driving shaft B, and the counter shafts C and D.

On the shaft C is the loose toothed wheel E, with which meshes the pinion F on the shaft B, the latter also carrying the worm G, with which engages the worm wheel H on the shaft D.

J designates a clutch on the shaft C, the same consisting of a sliding pin K, which carries a head L against which presses the spring M, said pin being mounted in a block N, which is connected with the shaft C, and adapted to enter an opening in the wheel E'. The head L projects from the outer end of the block N, so as to be engaged by the cam or wedging head P of the swinging arm Q, which is mounted on the frame A, and has pivoted to it the arm R, the outer end of which carries a roller S, which plays in the groove of a cam T, the latter being secured to the shaft D, whereby motions may be imparted in opposite directions to the arm Q. The head P is thus caused to advance to and recede from the head L of the pin K, and thus causes the clutch J to be operative at intervals, whereby intermittent motion is imparted to the line of shafting U, which is continuous of the shaft C, and consequently to each of the feed rollers V, which are geared with said shafting, thus providing intervals for the edging and connection of the plates prior to the subjection of said plates as connected, to the tinning or coating action in the pot W.

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

1. In a device for intermittently feeding sheet metal plates after being edged and connected, into a pot of a tinning or coating apparatus, a shaft having gearing adapted to mesh with gearing on the feed rolls of said apparatus, a driving shaft having a pinion meshing with a loose wheel on said first shaft, a clutch mechanism on said first shaft, a counter shaft geared with said driving shaft, a swinging arm operating a spring-controlled pin in said clutch mechanism, an arm pivoted to said swinging arm and carrying a roller, and a cam with grooves on said counter shaft, said parts being combined substantially as described.

2. A device for intermittently feeding sheet metal plates to an apparatus for tinning or coating the same, consisting of the driving shaft B, the counter shaft D, and the intermediate gearing G, H, the cam T on said shaft D, the arm R with the roller S engaging said cam, the swinging arm Q having the head P thereon, the counter shaft C, a clutch on said shaft which is adapted to be disengaged by said head, the loose gear wheel E on said shaft C and meshing with the pinion F on the shaft B, and the shafting U which is connected by gearing with the feed rolls of the aforesaid apparatus, said parts being combined substantially as described.

3. A driving shaft with a pinion thereon, a second shaft having a loose wheel thereon meshing with said pinion, a third shaft having gearing meshing with gearing on said driving shaft, a cam on said third shaft, a clutch mechanism on said second shaft, a swinging arm with head engaging said clutch mechanism, and a reciprocating arm pivoted to said swinging arm and operated by the rotations of said cam, said parts being combined substantially as described.

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