(No Model.)

W. SCOTT.

SHEET DELIVERY APPARATUS.

No. 368,734. Patented Aug. 23, 1887.

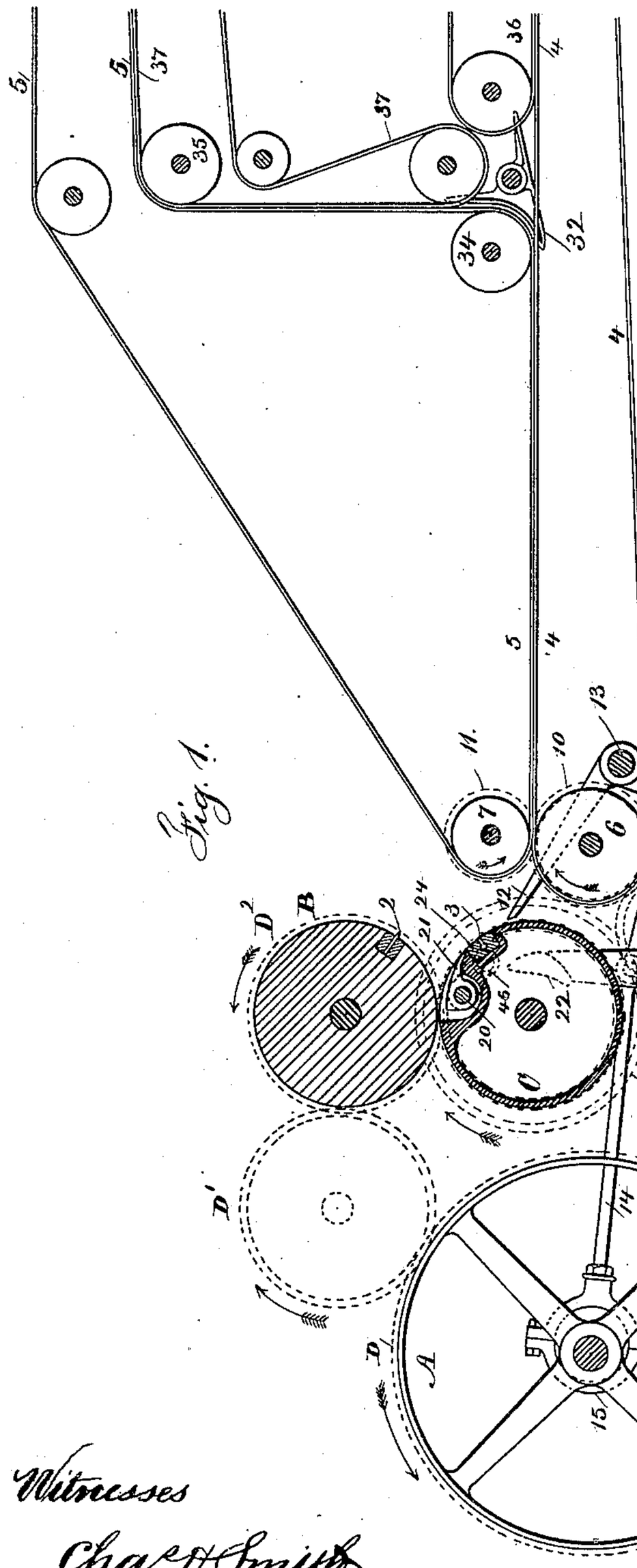

Fig. 1.

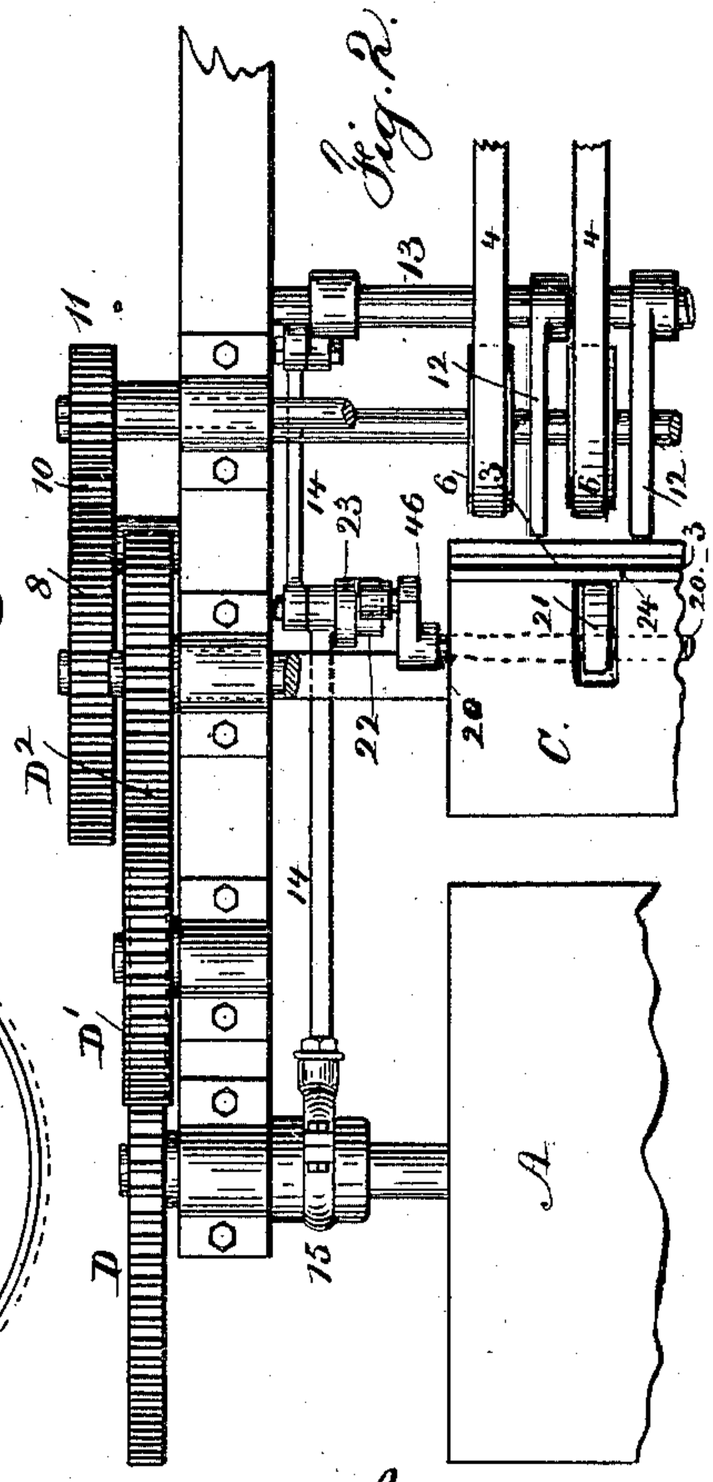

Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

WALTER SCOTT, OF PLAINFIELD, NEW JERSEY.

SHEET-DELIVERY APPARATUS.

SPECIFICATION forming part of Letters Patent No. 368,734, dated August 23, 1887.

Application filed August 25, 1886. Serial No. 211,789. (No model.)

To all whom it may concern:

Be it known that I, WALTER SCOTT, of Plainfield, in the county of Union and State of New Jersey, have invented an Improvement in Sheet-Delivery Apparatus, of which the following is a specification.

In my present improvements there are impaling-pins behind the groove in the female cutting-cylinder, so that two or more sheets can be assembled around the cutting-cylinder, and in this cutting-cylinder there are a shaft and throw-off fingers that are moved by a cam and lift the sheets off the pins, so that they pass along upon bridge-bars to delivery-tapes; and the parts are constructed in such manner that each sheet can be delivered separately when so desired, or two or more sheets may be assembled around the female cutting-cylinder.

In the drawings, Figure 1 is a vertical section representing my improvements, and Fig. 2 is a partial plan view of the same.

A represents the impression-cylinder, and B the male cutting-cylinder, and D D′ D² the gears connecting them together.

C is the female cutting-cylinder, 2 the cutting-knife, and 3 the groove into which the knife enters.

4 and 5 are the belts for conveying away the sheets; 6 and 7, the sectional rollers or pulleys around which the belts pass.

8, 9, 10, and 11 are the gear-wheels by which the belts are driven. The gears 8 should be larger than the diameter of the cylinder C, so that a greater surface speed is given to the belts than to the cutting-cylinders.

The bridge-bars 12 project from the shaft 13, and this may be moved by the connection 14 to the eccentric 15 to swing the ends of the bars 12 nearer to or farther from the cylinder C, or these bridge-bars may remain in a fixed position.

Upon the female cutting-cylinder C is the shaft 20, from which project the throw-off fingers 21, and there is a cam, 22, on an arm, 23, which acts against the crank-arm 46 at the end of the shaft 20 at the proper time, and where the cylinder C receives two sheets that are imposed one upon the other and held at the advancing ends by the pins 24, the throw-off fingers are operated every second sheet to deliver the sheets upon the bridge-bars 12, so that such sheets will slide down these bridge-bars and in between these belts 4 and 5.

The eccentric 15 gives motion to the lever 23 and cam 22, so as to bring the cam 22 into the path of the crank-pin on the end of the shaft 20 at the end of every second revolution of the cutting-cylinder, or, when three or more sheets are imposed, the cam 22 will be moved at the proper time. The shaft 20 is provided with a spring to return the throw-off fingers 21 to place as soon as the cam 22 ceases to act upon the arm 46.

The belts 4 and 5 are driven at a greater speed than the surface of the cutting-cylinders, and this may be effected by the gear-wheel 8 being of larger diameter than the cutting-cylinder C, as aforesaid, and gearing to the wheels that drive the rollers 6 and 7; hence the sheets as delivered will pass in between the belts 4 and 5 and be carried off sufficiently fast to allow for the action of the switch 32 in directing one sheet or pair of sheets up around the roller 34 and over the roller 35, between the belts 5 and 37, to the folding or other delivery apparatus, and then allowing the next sheet or pair of sheets to pass along on the belts 4 and beneath the switch 32 when the same is raised, and reach the folding or delivery apparatus between the belts 4 and 36. This switch 32 is moved periodically by any suitable mechanism.

The bridge-bars, in consequence of the swinging movement, are farther away from the sheet when the same is being wrapped around the female cutting-cylinder, and the ends of such bars are moved closer to the cylinder when the sheet or sheets are being delivered.

I claim as my invention—

The combination, with the male and female cutting-cylinders, of impaling-pins behind and adjacent to the slot in the female cut-

ting-cylinder, throw-off fingers 21, for removing the sheets from the pins, bridge-bars 12, and a shaft, 13, for the same, a cam, 22, and arm 23, for operating the throw-off fingers 21, an eccentric and connection, 14, to the arm 23 and shaft of the bridge-bars 12, and delivery-rollers 6 and 7, substantially as specified.

Signed by me this 20th day of August, A. D. 1886.

WALTER SCOTT.

Witnesses:
WILLIAM G. MOTT,
WALLACE L. SERRELL.