

No. 677,678.

Patented July 2, 1901.

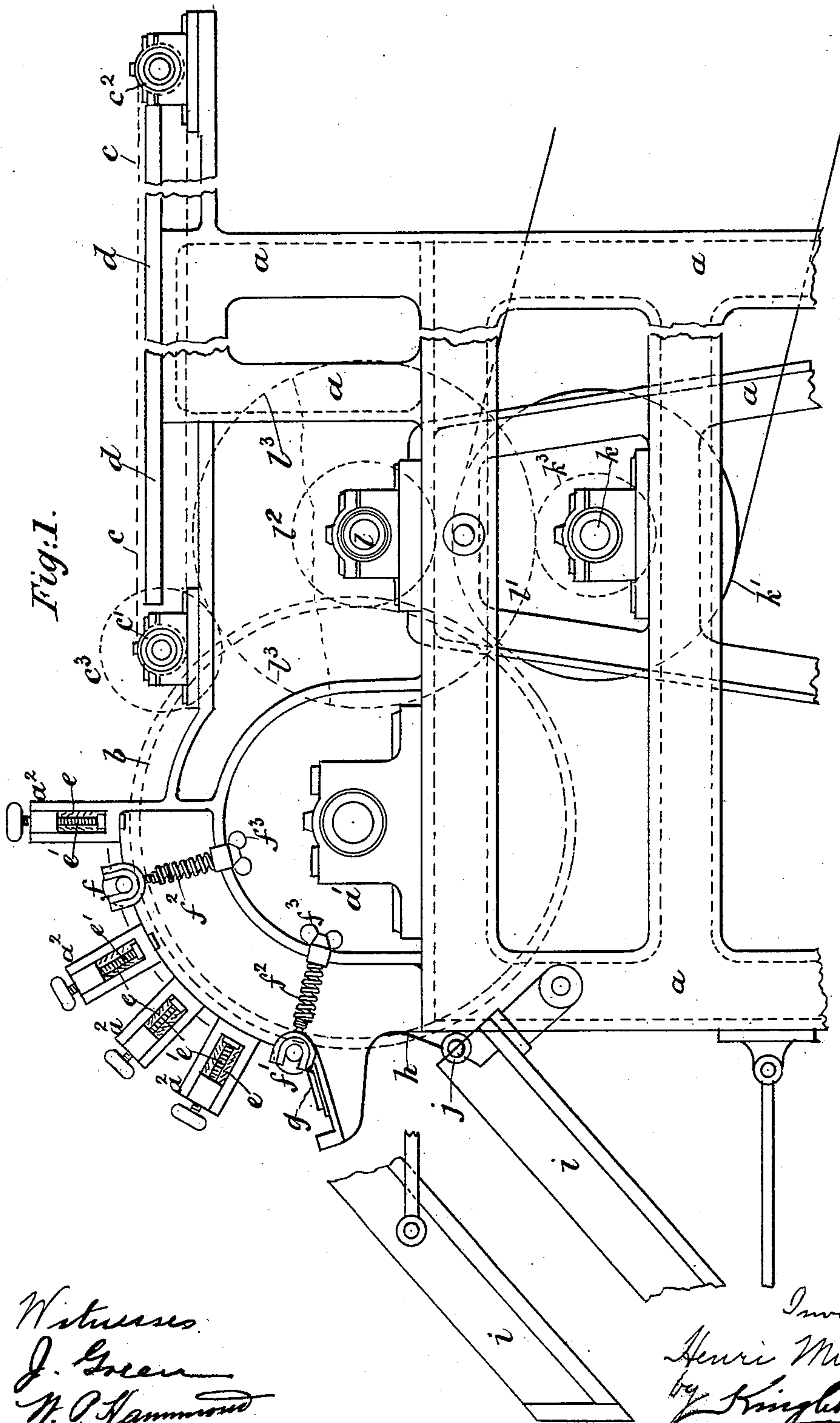
H. MICHAUD.

MACHINE FOR COLORING OR POWDERING LITHOGRAPHIC OR OTHER TRANSFER SHEETS.

(Application filed Nov. 20, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:
J. Green
W. O. Hammond

Inventor:
Henri Michaud
by Knight Bros.
Atty.

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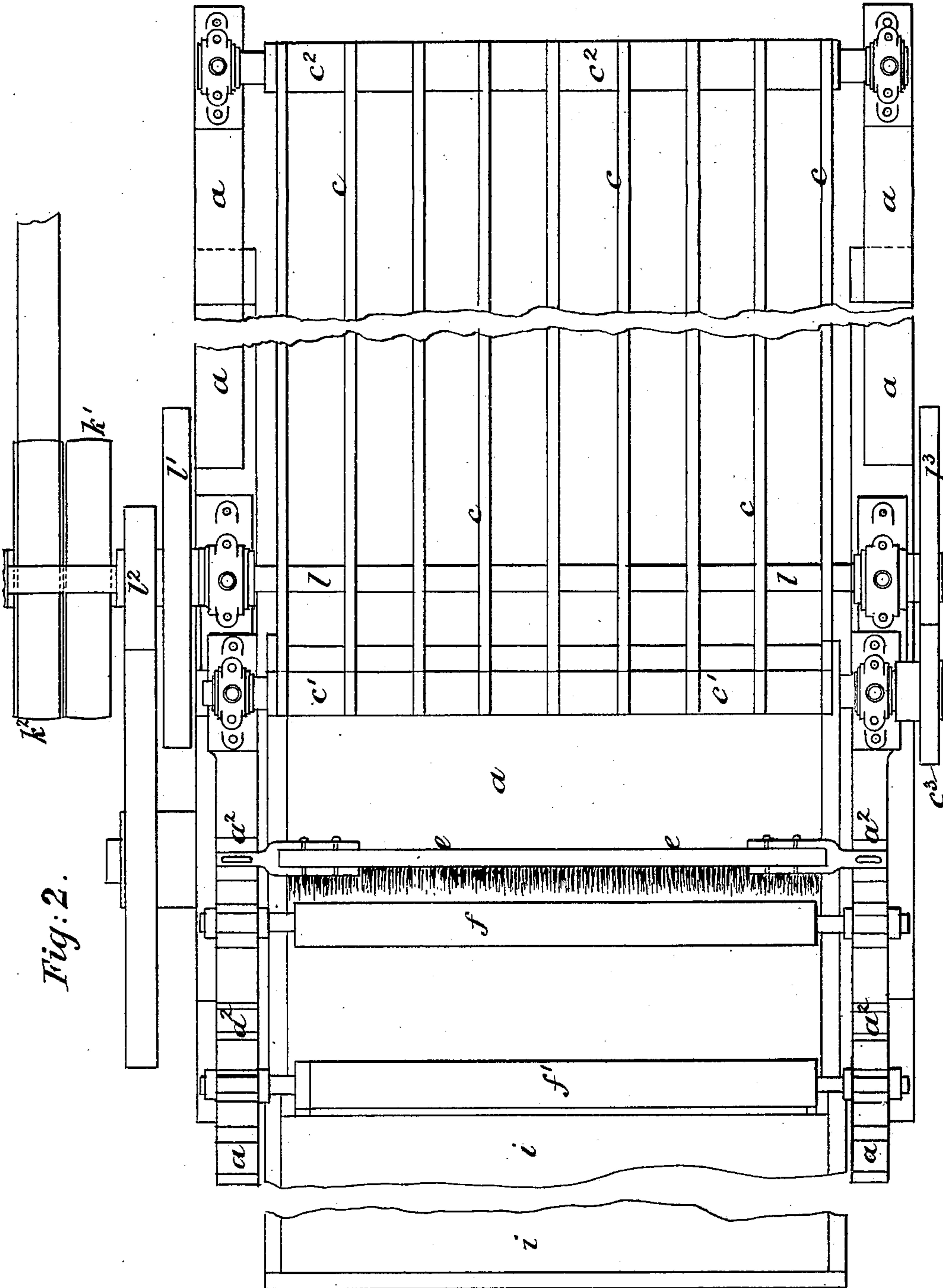


Fig: 2.

Witnesses:
J. Green.
H. P. Hammond.

Inventor:
Henry Michaud
by Knights Pross Atty

UNITED STATES PATENT OFFICE.

HENRI MICHAUD, OF LIMOGES, FRANCE, ASSIGNOR TO THE POTTERS DECORATIVE SUPPLY COMPANY, LIMITED, OF HANLEY, ENGLAND.

MACHINE FOR COLORING OR POWDERING LITHOGRAPHIC OR OTHER TRANSFER SHEETS.

SPECIFICATION forming part of Letters Patent No. 677,678, dated July 2, 1901.

Application filed November 20, 1900. Serial No. 87,126. (No model.)

To all whom it may concern:

Be it known that I, HENRI MICHAUD, a citizen of France, residing at St. Léonard, Limoges, France, have invented a new and useful Machine for Coloring or Powdering Lithographic or other Transfer Sheets, of which the following is a full, clear, and exact description, and for which I have made application for patent in France on the 9th day of May, 1900, and my assignees have made applications for patents in Great Britain on the 18th day of October, 1900, and in Germany on the 29th day of October, 1900.

Chromo-lithographic or other transfer sheets employed in the decoration of pottery are powdered by hand with the aid of brushes, which have the grave inconvenience of diffusing in the atmosphere a powder which is dangerous for the health of the operatives. In order to obviate this inconvenience, on the one hand, and to effect a great industrial production, on the other hand, a machine having continuous action has been devised, which is constructed and operates in the following manner.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side view, and Fig. 2 is a plan, of the machine.

a is the machine-framing.

b is a wood cylinder which receives and draws forward the sheets of chromo-transfers. This cylinder is mounted in bearings *a'*, carried by the machine-frame.

c c are endless tapes or bands which are carried by and caused to revolve around two rollers *c' c'*, preferably of wood. These tapes or bands move at the same surface speed as that of the cylinder *b*. The sheets of chromo-transfers are placed by hand on these tapes or bands and are fed by the latter to the cylinder *b*.

d is a wood table fixed within the space enclosed by the tapes or bands *c c*.

e e are a series of color-retaining brushes, the supports or backs of which are mounted in fixed guides *a''* and are capable of adjustment in the latter by means of screws *e'*.

f f' are elastic rollers, preferably of gelatin, which are caused to press the transfer-sheets upon the cylinder *b* with elastic pres-

sure obtained and regulated by means of springs *f''* and nuts *f'''* acting upon their screw-threaded carriers.

g is a steel blade or doctor which bears against the roller *f'* to collect the excess of color on the surface of said roller.

h is one of a number of springs, the free ends of which bear against the surface of the cylinder *b* and act to detach the transfer-sheets therefrom and cause them to pass into the box or receiver *i*.

j is a wood roller rotating in the same direction as the cylinder *b*, but preferably at a slightly-greater surface speed than the latter. This roller *j* receives the sheets immediately they are detached from the cylinder *b* and prevents them from buckling.

k is the main driving-shaft, which is fitted with fast and loose pulleys *k' k''* and a toothed wheel *k'''*. This latter gears with a toothed wheel *l'*, fixed on a counter-shaft *l*, which by a toothed wheel *l''*, gearing with a toothed wheel *c'''*, gives motion to the roller *c'*, and consequently to the tapes or bands *c* and roller *c''*. A toothed wheel *l'''*, fixed on the counter-shaft *l*, gives motion to the cylinder *b*.

The machine operates in the following manner: The transfer-sheets are placed in succession on the tapes or bands *c c* in such manner that the first sheet covers the second by a few centimeters, and so on. When the machine is in motion, the sheets are in succession drawn forward by the action of the gelatin rollers *f f'* acting by spring-pressure against the cylinder *b*. The first brush *e* furnishes the mass of powder, and the succeeding brushes equalize it and retain the excess, the surplus being collected by the steel blade or doctor *g*. The gelatin rollers *f f'* become impregnated with powder and fix it energetically on the drawings on the sheets to be powdered. The transfer-sheets are in succession detached from the cylinder *b* by the springs *h*. Said sheets are then acted upon by the roller *j* to prevent buckling and are automatically delivered to the box or receiver *i*.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a machine for powdering transfer-

10 sheets, the combination of a rotating cylinder, a number of fixed brushes arranged across said cylinder to spread the powder on the sheets, a spring-pressed elastic roller arranged intermediate of a pair of said brushes, 5 and a spring-pressed elastic roller arranged beyond the last brush, such elastic rollers acting against the cylinder to draw forward the sheets and press the powder on the latter, 10 substantially as set forth.

2. In a machine for powdering transfer-sheets, the combination of a rotating cylinder and spring-pressed elastic rollers acting against such cylinder to draw forward the 15 transfer-sheets, revolving endless tapes or bands passing around rollers to feed the trans-

fer-sheets to the cylinder, a series of brushes to apply and spread the powder over such sheets, a steel blade or doctor to collect the excess of color on the surface of the last elastic 20 roller, a series of springs acting against the cylinder to detach the sheets therefrom, a roller to prevent the buckling of said sheets, and a box or receiver into which the sheets are automatically and continuously delivered, 25 substantially as herein set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HENRI MICHAUD. [L. S.]

Witnesses:

IMBERTHABONNILLE,
LEONET, A.