

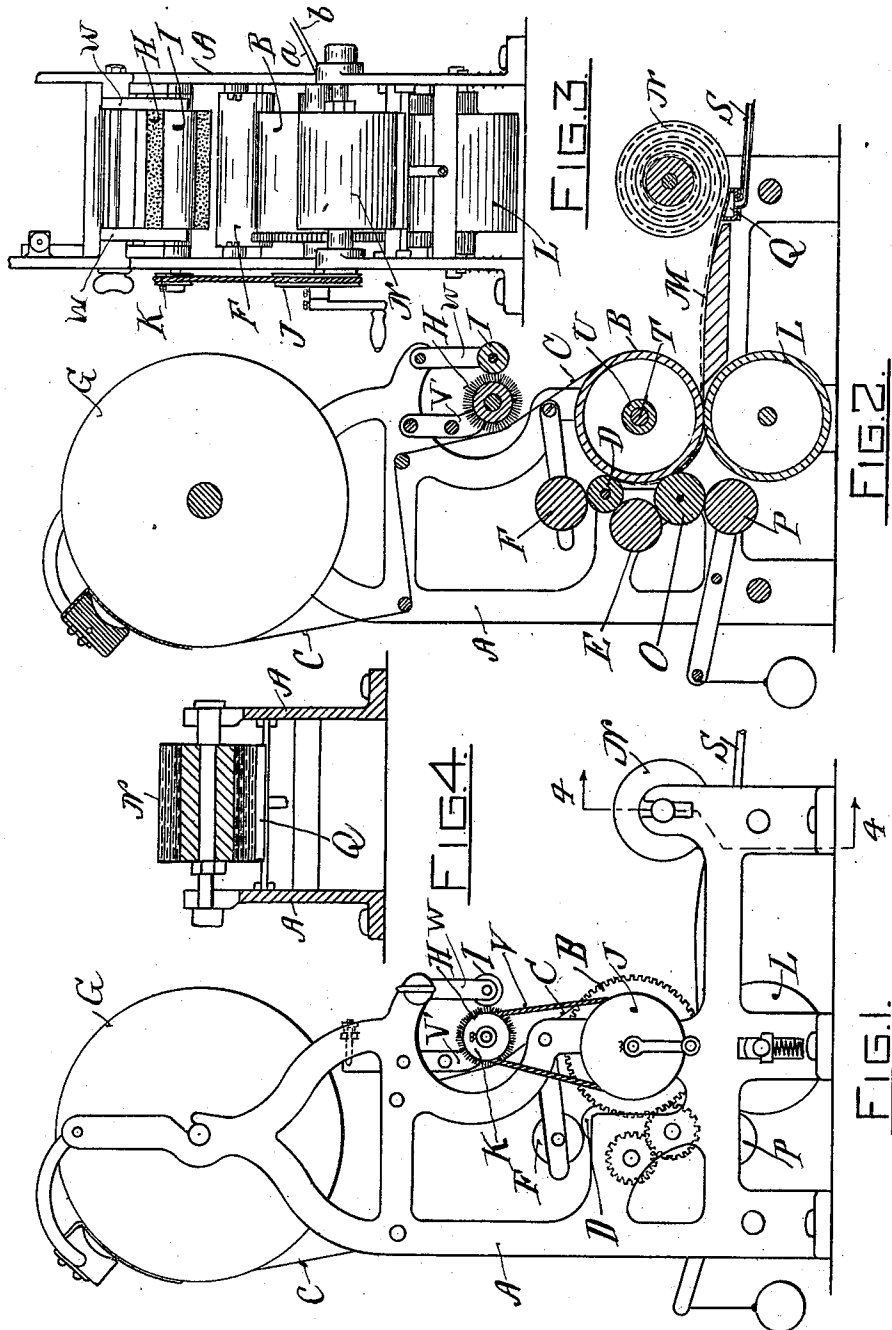
C. E. SMITH.

MACHINE FOR PACKAGING METALLIC LEAF IN ROLLS.

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981,700.

Patented Jan. 17, 1911.



WITNESSES

Emery Kinnecom
Albert E. Pogorzelski

INVENTOR

Charles E. Smith
per S. Scholfield
ATTORNEY

UNITED STATES PATENT OFFICE.

CHARLES E. SMITH, OF OAK LAWN, RHODE ISLAND.

MACHINE FOR PACKAGING METALLIC LEAF IN ROLLS.

981,700.

Specification of Letters Patent.

Patented Jan. 17, 1911.

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To all whom it may concern:

Be it known that I, CHARLES E. SMITH, a citizen of the United States, residing at Oak Lawn, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Machines for Packaging Metallic Leaf in Rolls, of which the following is a specification.

My invention relates to that class of machines in which the metallic leaf has first been wound with a supporting paper strip into a preliminary roll, to be then transferred onto the surface of a paper strip with which it is to be spirally wound into a commercial package roll.

It also relates to improved means for applying wax or similar adhesive material to the surface of the paper strip to cause the adherence of the metallic leaf thereto, and its removal from the surface of the paper strip of the preliminary roll.

My invention also consists in the employment of suction to prevent the metallic leaf from winding up at the back of the preliminary roll during the process of unwinding.

It also consists in heating the feeding bed in order to cause the adhesion of the metallic leaf to the paper strip while passing upward around the periphery of the said bed.

In the accompanying drawings:—Figure 1 represents a side elevation of a machine for packaging metallic leaf embodying my improvement. Fig. 2 represents a central vertical section. Fig. 3 represents a front end view. Fig. 4 represents a section taken in the line 4 4 of Fig. 1.

In the accompanying drawings, A, A, represents the side frames of the machine, B the feeding bed over which the packaging paper strip C passes to the packaging core D, which rotates between the peripheries of the feeding bed B and the rolls E and F, as is common in such machines. The packaging paper strip C passes from the supply roll G to contact with the periphery of the rotary brush H which is caused to rotate in contact with the surface of a bar of wax I so that through the rotation of the brush by means of the pulleys J and K and the belt V, a light coating of wax will be imparted to the surface of the paper strip, to cause the desired adhesion of the sheets of metallic leaf thereto.

The rotary brush H is held in a pendent adjustable frame V', pivoted to the side

frames of the machine, and the bar of wax I is likewise held in an adjustable pendent frame W, whereby both the brush H and bar of wax I are made capable of conjoint adjustment relatively to the paper strip, to the surface of which the wax is to be applied.

The spring actuated pressure feed roll L and the feeding bed B operate together for simultaneously drawing forward both the packaging paper strip C and the paper strip M of the preliminary roll N, in connection with which the lapped sheets of metallic leaf are primarily wound, and when these two strips pass between the said pressure roll L and feeding bed B, the metallic leaf will be caused to leave the paper strip M of the preliminary roll, and pass to the paper strip C of the package roll.

After passing between the feeding bed B and the pressure feed roll L, the paper strip M from which the metallic leaf has been removed passes to and is rolled up on the core O, which rotates between the peripheries of the rolls E and P and the feeding bed B, the said core O being held up against the roll E and the feeding bed B, by means of the movable weighted roll P.

When the preliminary roll N is being rapidly unwound there is great danger of having the metallic leaf run up at the back of the unwinding roll instead of following along upon the surface of the unwound paper strip, and in order to prevent this injurious result a suction box Q upon which the said preliminary roll rests, is arranged at the outer side of the unwinding paper strip, whereby the partial vacuum caused at the point of unwinding, will serve to retain the metallic leaf properly upon the surface of the said strip. The suction box Q, is to be connected with a suction blower for constant action by means of the suction pipe S.

In order to cause an attraction between the surface of the paper strip C, and the metallic leaf which has been taken up from the paper strip M, so as to avoid danger of having it leave the paper strip in its passage to the core of the package roll O, from the pressing point between the feeding bed B and the roll L, an electric cartridge T is inserted into the hollow shaft U of the feeding bed B, as shown in Fig. 2, electric connection being made therewith by means of the wires a, b, shown in Fig. 3, and by this means the paper strip will become so heated

as to cause the desired attraction of the metallic leaf. The heat of the feeding bed B will also be effective within the chamber of the winding up mechanism.

5 I claim as my invention:

1. In a machine for packaging metallic leaf in rolls, the combination of a preliminary roll of metallic leaf, means for drawing the supporting strip and metallic leaf
10 of the said preliminary roll forward, means for winding up the supporting strip of the preliminary roll upon another core for renewed winding with metallic leaf and continued use in the machine, and suction means
15 for preventing the adhesion of the metallic leaf to the back of the unwinding preliminary roll.

2. In a machine for packaging metallic leaf in rolls, the combination of means for
20 drawing the supporting strip forward, means for feeding the metallic leaf onto the supporting strip, a rotary brush held in an adjustable frame, means for rotating the said brush in contact with the surface of
25 the supporting strip, and a bar of wax held in an adjustable frame, and applied to the surface of the brush for the deposit of wax thereon.

3. In a machine for packaging metallic leaf in rolls, the combination of means for
30 winding up the supporting strip and metallic leaf into a package roll, means for feeding the metallic leaf onto the supporting strip, the feeding bed which forms a part
35 of the winding up mechanism, and means for heating the feeding bed, whereby heat will be transmitted to the metallic leaf at the point of its attachment to the supporting strip and also at a point within the rolling chamber of the winding up mechanism
40 and the manufacture of the package rolls be facilitated.

4. In a machine for packaging metallic leaf in rolls, the combination of means for
45 unwinding a package roll of metallic leaf, with a suction box located at the outer side of the unwinding paper strip, whereby the partial vacuum caused at the point of unwinding will serve to retain the metallic
50 leaf properly upon the surface of the said strip.

CHARLES E. SMITH.

Witnesses:

SOCRATES SCHOLFIELD,
BENJAMIN L. DENNIS.