

E. H. & M. H. SWIFT.
ROLL FOR HOLDING METALLIC FILMS FOR PRINTING.
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1,150,156.

Patented Aug. 17, 1915.

Fig. 1.

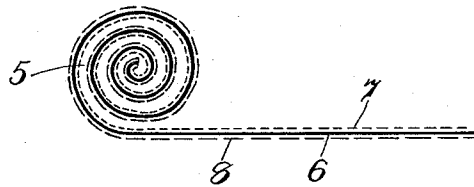
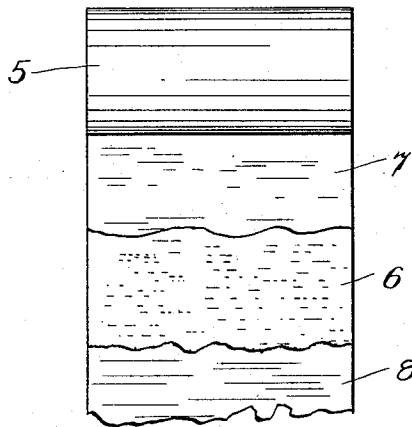


Fig. 2.



WITNESSES:

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ERNEST H. SWIFT AND MATTHEW H. SWIFT, OF HARTFORD, CONNECTICUT, ASSIGNORS
TO M. SWIFT & SONS, OF HARTFORD, CONNECTICUT, A FIRM COMPOSED OF MATTHEW
SWIFT, ERNEST H. SWIFT, AND MATTHEW H. SWIFT, ALL OF HARTFORD, CON-
NECTICUT.

ROLL FOR HOLDING METALLIC FILMS FOR PRINTING.

1,150,156.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, ERNEST H. SWIFT and MATTHEW H. SWIFT, each a citizen of the United States, and each a resident of
5 Hartford, in the county of Hartford and State of Connecticut, have invented a new and Improved Roll for Holding Metallic Films for Printing, of which the following is a specification.

10 Our invention relates to means for wrapping or packing strips or sheets of metallic film so that they may be readily used for their intended purpose, and the object of our invention, among others, is to provide such
15 means for wrapping or packing such film that it may be readily employed for printing purposes and with a minimum waste.

A form of package embodying our invention, and in the use of which the object above
20 mentioned, as well as others, may be attained, is illustrated in the accompanying drawings, in which—

Figure 1 is an end view of a roll embodying our invention, and in which the metallic
25 film is wrapped. Fig. 2 is a plan view of the same with parts broken away to show the construction.

The showing in Fig. 1 of the drawings has been distorted in order to clearly bring
30 out the construction, the several layers in the strip and in the roll being shown as separated, but it will be understood that in actual use the paper, fabric and film will lie one against the other, and the several layers
35 in the roll will also lie one against another.

It is customary in the manufacture of numerous articles at the present time to apply thereto characters or devices displayed by means of metal, these characters
40 or devices being formed from metallic film stamped upon fabric or other material as by means of dies. As an illustration of such use the manufacturers of hats frequently
45 apply to the inner side of the crown a piece of fabric upon which their name, trade mark, and the like are displayed in this manner.

Our invention contemplates a manner of putting up the film so that it may be employed for the purpose above described with
50 a minimum waste of the film, our invention also enabling the impression to be readily and quickly obtained.

In carrying out our invention a roll is

provided in which the metallic film is con- 55
tained, such a roll being shown in the accompanying drawings and denoted by the numeral 5. In putting up and constructing a roll of film embodying our invention we provide a base strip 6 composed of suitable
60 cloth or fabric and one face of this fabric is preferably sized, that is, treated with a material that when subsequently softened as by heat will cause the metallic film to adhere to its surface. The sizing upon the sur- 65
face of this base strip is thoroughly dried before the strip is used to form the roll, and the strip of metallic film 7 is laid upon the sized and dried surface of this base strip composed of fabric, the two strips having no
70 adherence at the time of forming and while composing the roll, and not until after the strip has been unwound and heat applied thereto. A shield 8 is laid under the base strip, this shield being preferably composed 75
of paper. In the drawings these strips, being of very thin material, are illustrated by lines in the edge view shown in Fig. 1, the base strip being shown by a full line, the metallic film 7 by a dotted line composed 80
of short dashes, and the shield 8 by a dotted line of comparatively long dashes. When the strips are thus laid together the whole is formed into a roll as shown in Fig. 1, the metallic film being on the inside of the roll 85
and the shield on the outside. This shield serves a double function. When incorporated in the roll it is interposed between the base fabric and the metallic film, so that as the roll is unwound the metallic film will
90 adhere to that surface of the base fabric on which it was placed before being rolled and will not stick to the opposite surface of said fabric, the interposed shield preventing such a result. 95

In using the film from our improved roll the strips are extended as shown in Fig. 1 and the shield 8 placed upon the bed of the press which is used in obtaining the impression. A die properly cut to produce the
100 desired character or figure is forced against the surface of the upper or inner strip, that is, against the strip of metallic film, the parts being suitably heated in any desired manner. The action of the die produces the
105 required character or figures from the film and at the same time the heated parts soften the sizing on the base fabric causing the

metal in which the shape of the figure is displayed to permanently stick or adhere to the surface of the base cloth or fabric. The paper now serves to prevent the base fabric or cloth from sticking to the base of the press, an action liable to result if the paper were not employed for the reason that the cloth or fabric being pervious the sizing when heated as described will penetrate through the base fabric.

It will thus be noted that the metallic film is put up in a package ready for immediate use, the base fabric on which a character or figure is to be displayed being rolled with the film, so that when the latter is unrolled it is in place on the base fabric and ready for the impression of the die. The paper shield also forms a part of the roll, being in its proper place when the latter is unrolled.

While we have shown and described herein one means to put our invention into effect, it will be noted that this may be departed from to a greater or lesser extent and yet embody the invention, and we do not therefore limit ourselves to the details herein illustrated and described, as we have found it possible to secure fairly good results by omitting an element or elements hereinbefore described. The metallic film need not necessarily be placed on the inside of the roll and the paper on the outside, as these may be reversed with good results, and other changes may be made within the spirit and intent of the invention.

We claim:—

1. A package for metallic films consisting of a strip formed in a roll, said strip including a base fabric, a metallic film located on one side of the fabric, and an independently and separately formed sheet or ply comprising a shield located upon the opposite side of said fabric.

2. A package for metallic films in the form of a roll wound from a strip composed of a base fabric, a metallic film located on one side of the fabric and a paper shield located on the opposite side of the fabric.

3. A package for metallic films in the form of a roll composed of a base fabric sized upon one surface the metallic film located on one side of the fabric and an independently and separately formed sheet or ply comprising a shield located on the opposite side.

4. A package for metallic films formed in a roll and composed of a base fabric, a metallic film located on the upper side of said fabric and inside of the roll when the latter is produced, and a shield composed of an integral strip of different material from the base and located on the underside thereof and on the outside of the roll when the latter is produced.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."