July 28, 1936. J. J. COYNE 2,048,841

STEREOTYPE BLANKET

Filed Oct. 8, 1934

Fig. 1

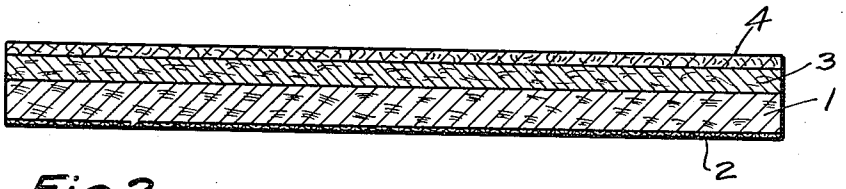


Fig. 2

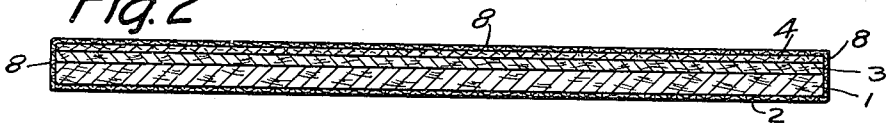


Fig. 3

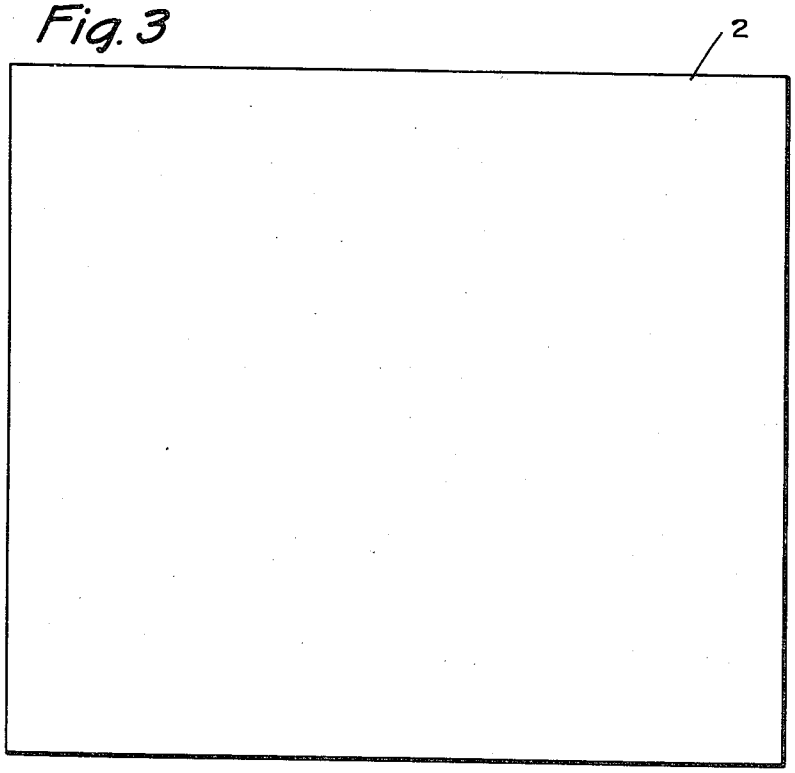


Fig. 7

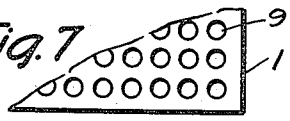
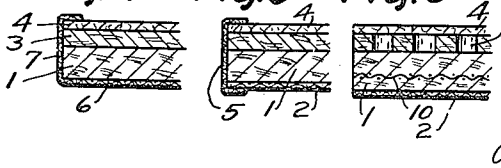


Fig. 4 Fig. 5 Fig. 6



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STEREOTYPE BLANKET

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Application October 8, 1934, Serial No. 747,302

5 Claims. (Cl. 154—54.5)

The purpose of this invention is to facilitate forming or taking impressions from the matrix used with printing presses, and particularly newspaper presses, by replacing the cork blanket with a laminated sheet of material having a comparatively stiff or hard upper surface and a yielding under surface, and also constructed to permit quick recovery of the parts thereof as the impression is made.

The invention is a stereotype or forming blanket having a comparatively heavy cork base with a thin facing and with a yielding backing, and in which the backing is held by a comparatively stiff sheet of material.

In making the impressions from the matrix a sheet of paper is placed upon the matrix, a blanket placed upon the sheet of paper, and a roller is passed over the blanket, forcing the paper against the matrix, so that an impression is made thereon. The sheet of cork is stretched and will stretch as much as ½'' as the roller is passed thereover, so that it is desirable to provide means for holding the cork and also limit the stretch to a minimum and provide quick recovery thereof. The cork often breaks and chips off of the edge, so that it is also desirable to provide a binder for the particles of cork and which will hold the cork together, thereby extending the life of the blanket and preserving its appearance and usefulness.

The object of the invention is, therefore, to provide a laminated stereotype or forming blanket, in which means is provided for holding the sheet of cork in usable condition.

Another object is to provide a binder for the sheet of cork of a forming blanket which causes quick recovery of the parts thereof as a load is passed thereover.

Another object is to provide a stereotype or forming blanket having a comparatively stiff upper surface.

A further object is to provide a steretotype or forming blanket having a combination backing permitting yielding of the working surface thereof and also having a comparatively stiff sheet of material forming a binder therefor.

And a still further object of the invention is to provide a combination stereotype or forming blanket comprising a plurality of layers of material, which is of a simple and economical construction.

With these ends in view the invention embodies a blanket formed with a comparatively thick pad having a fabric, cellophane or rubber facing, with a cork and rubber, or felt cushion on the back thereof, and with a substantially rigid fibre backing forming a cover therefor.

Other features and advantages of the invention will appear from the following description, taken in connection with the drawing, wherein:

Figure 1 is a cross section thru the blanket in the preferred design.

Figure 2 is a cross section thru the blanket showing the blanket provided with a continuous cover.

Figure 3 is a view showing a blanket of a rectangular shape and of an approximate size.

Figure 4 is a detail showing a binding at the edge of the blanket formed by extending the edges of the material forming a covering for the working surface thereof.

Figure 5 is a similar view showing a continuous tape forming a binding for the edges of the blanket.

Figure 6 is a view showing another alternate design, in which openings are provided in the resilient backing of the blanket.

Figure 7 is a plan view of a part of the blanket showing the resilient backing with the openings therein.

In the drawing the blanket is shown as it may be made wherein numeral **1** indicates the main layer, which is preferably of cork composition, and which is comparatively stiff and hard, numeral **2** a facing sheet that may be used on the working surface of the cork layer, numeral **3** a yielding or resilient backing for the cork layer, and numeral **4** a substantially stiff reinforcing fibre backing.

These sheets of material may be gummed, or secured together by an adhesive and the edges may be bound, as shown in Figures 4 and 5, with a strip of tape **5** that may extend across the edge and over the upper and lower surfaces of the blanket, as shown in Figure 5, or the facing member on the working surface of the cork **1**, which is indicated by the numeral **6**, may be made slightly larger, so that the edges thereof, which are indicated by the numeral **7**, may extend upward across the members **1**, **3**, and **4**, and the upper edges may fold over on the upper surface of the member **4**, thereby providing a complete binding for the edges, and this binding and also the tape binding shown in Figure 5, may extend continuously around the blanket. It will also be understood that any other type of binding may be used. It will also be understood that this member may extend continuously over the upper surface of the blanket, as shown in Figure 2, thereby forming a complete cover, which is

indicated by the numeral 8, and this cover may be made of any material, and may be secured to the blanket in any manner.

In the design shown in Figures 6 and 7, the resilient member 3 is provided with openings 9, which increase the cushioning effect, as they provide air pockets, which add to the resiliency of this member. It will be understood that these pockets may be of any size, shape or design, and may be arranged in the member 3 in any manner, or the member 3 may be made in a plurality of layers with pockets in all or some of the layers. It will also be understood that any other means may be used in the blanket for providing a greater cushioning effect, or more resiliency, and this means may be provided in any of the members.

In the design shown in Figure 6, the member 1 is also provided with a reinforcing fabric web 10, which may be made of mesh, fabric or any material, and this may be incorporated in the member 1 in any manner, or may be formed therein by any means. It will be understood that any form of web or reinforcing means embodied in the member 1, or added therein, will have a tendency of holding the particles of cork together and assisting the recovery of this member to its original shape as it is used. This reinforcing may also be in the form of wire strands, or strands of any material, and they may be placed longitudinally, transversally or diagonally as may be desired. In the design shown in Figure 6, this reinforcing is placed substantially close to the working surface, however, it will be understood that it may be located close to either side or in the center, or at any point. This reinforcing may also be installed or formed in the member 1 by forming the member 1 in a plurality of layers and compressing the layers around the reinforcing with a suitable binder for holding the layers together.

The section 1 may be considered as the foundation or main section of the blanket, and this is preferably made of a cork composition, however, this may also be made of layers of felt and cloth, or any suitable material may be used which has yielding or resilient qualities similar to cork, and which is adapted to be combined with the other materials used herein. This sheet of material may be of any width or length to fit a matrix of any size or shape and may also be of any thickness. It is preferred to use a composition cork of about ¼'' in thickness, and the under surface may be plain, or may be provided with a facing, preferably cellophane or a similar material, however, it will also be understood that the facing may be made of a thin sheeting of rubber or of canvas or duck, and this may be attached to the cork with adhesive, or by any means, and the edges thereof may terminate at the edges of the blanket or may extend beyond the edges thereof, and may be folded upward and secured to the edges to form a binding, as shown in Figures 4 and 5. It will be appreciated that the comparatively rough surface of the matrix formed of stereotypes of type, line cuts, or half tones, makes it necessary for the cork to give or stretch to different degrees, or different amounts at different points and, whereas the cork stretches, the cellophane, or other facing, functions as a binder to hold the particles of cork together, and the cellophane, in particular, provides a certain amount of spring which readily returns the indented portions of the surface to a flat plane. The essential feature of this composition blanket is the quick recovery which is not obtained by cork or felt and cloth used indepedently of the other materials and, therefore, the nature of the facing should be such that it forms a partial binder and also has sufficient toughness to reduce stretching in the crok to a minimum and, when stretching is present, return the cork to the original position, as quickly as possible. This facing is substantially thin and should be from $\frac{1}{32}$ to 1/64'', or even less than 1/64th.

On the opposite side of the member 1 is a layer of resilient material, such as a cork and rubber composition, or this may be made of felt, or any similar material. This layer of material provides a yielding backing for the member 1, permitting it to bulge or stretch, and at the same time, holding it to prevent distortion, and also providing quick recovery thereof to the original position or shape. Normally the member 1, which is generally made of cork,will stretch and, as hereinbefore stated, this stretch may amount to as much as ½'', and this makes it difficult to obtain an exact impression, whereas with the resilient backing 3, the cork is substantially held so that the stretch is reduced to a minimum, thereby making it possible to obtain a more exact impression, and also holding the blanket in its true shape and form.

In addition to the resilient backing 3, the blanket is provided with a substantially hard or stiff layer of material, preferably fibre, hard rubber, or bakelite, or any strong sheeting may be used which presents a substantially hard surface to a roller that is passed over the blanket when making the impression.

These layers of material are shown substantially thick in the drawing, however, the relative proportions of the different materials to the member 1 are somewhat correct, altho it will be understood that materials of any thickness may be used, and any number of layers of different materials may also be used in combination. These different layers of material or members may be held together by any suitable adhesive, or by any means, or any additional material may be used between the layers to obtain a better bind between the different materials.

It will be understood that other changes may be made in the blanket without departing from the spirit of the invention. One of which changes may be in the omission of the member 2, or of its use on the opposite side of the member 1, another may be in the use of reinforcing means in the member 1 or in combination therewith, as with this member made of composition cork, any suitable fabric or other webbing may be molded therein, or attached thereto, or used in combination therewith in any manner. The layers of material may also be blended or compounded, or molded together in any other manner, and may be arranged in any other position or positions in relation to each other. It will also be understood that any number of layers of these different materials may be used, and these may be comparatively thin or thick, as may be desired.

The construction of this blanket may readily be understood from the foregoing description. In use, the blanket may be provided as shown and described, and may be of any shape or size to correspond with the matrix of any size or shape. These blankets may be provided as separate and independent elements, and when making an impression from a matrix, the paper is placed thereon, the blanket over the paper, and a heavy roller is run over the blanket, which forces the paper into close contact with the matrix.

It will be understood that altho this blanket or

pad is shown and described as a stereotype or forming blanket, and particularly adapted to be used with a matrix in combination with printing presses, and particularly with newspaper presses, it will also be understood that it may be used for many other purposes, such as silencing pads, which may be used under machines or typewriters, or under many objects of different types. It will also be understood that many other uses may be found for a blanket or pad of this type.

One of which uses may be in acoustics, as it may be used for soundproofing walls of soundproof rooms, and another may be in isolation, as of vibrations, or the like.

Having thus fully described the invention, what I claim as new and desire to secure by Letters Patent, is:

1. A stereotype blanket comprising a body consisting of a relatively thick sheet of cork, a substantially stiff backing consisting of a relatively thin fiber sheet, and an intermediate layer of resilient material for absorbing the distortions of the cork body as said body is forced into uneven surfaces, said resilient layer adapted to return said cork body to its normal position, said body and layers of material secured together by an adhesive.

2. A stereotype blanket as described in claim 1 characterized by a relatively thin layer of resilient material providing a facing for said cork body for holding particles of the cork together and returning same to the normal position.

3. A stereotype blanket as described in claim 1, and a facing therefor consisting of a relatively thin sheet of material having resilient qualities secured to the exposed surface of said cork body for holding said cork together and for returning said cork body to the normal position after use thereof, and a binding extending around the edge of said device.

4. A stereotype blanket as described in claim 1 characterized by a reinforcing layer of fabric positioned adjacent the working face of said cork body and extending therethrough.

5. A stereotype blanket as described in claim 1 characterized by openings in said intermediate resilient layer.

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