

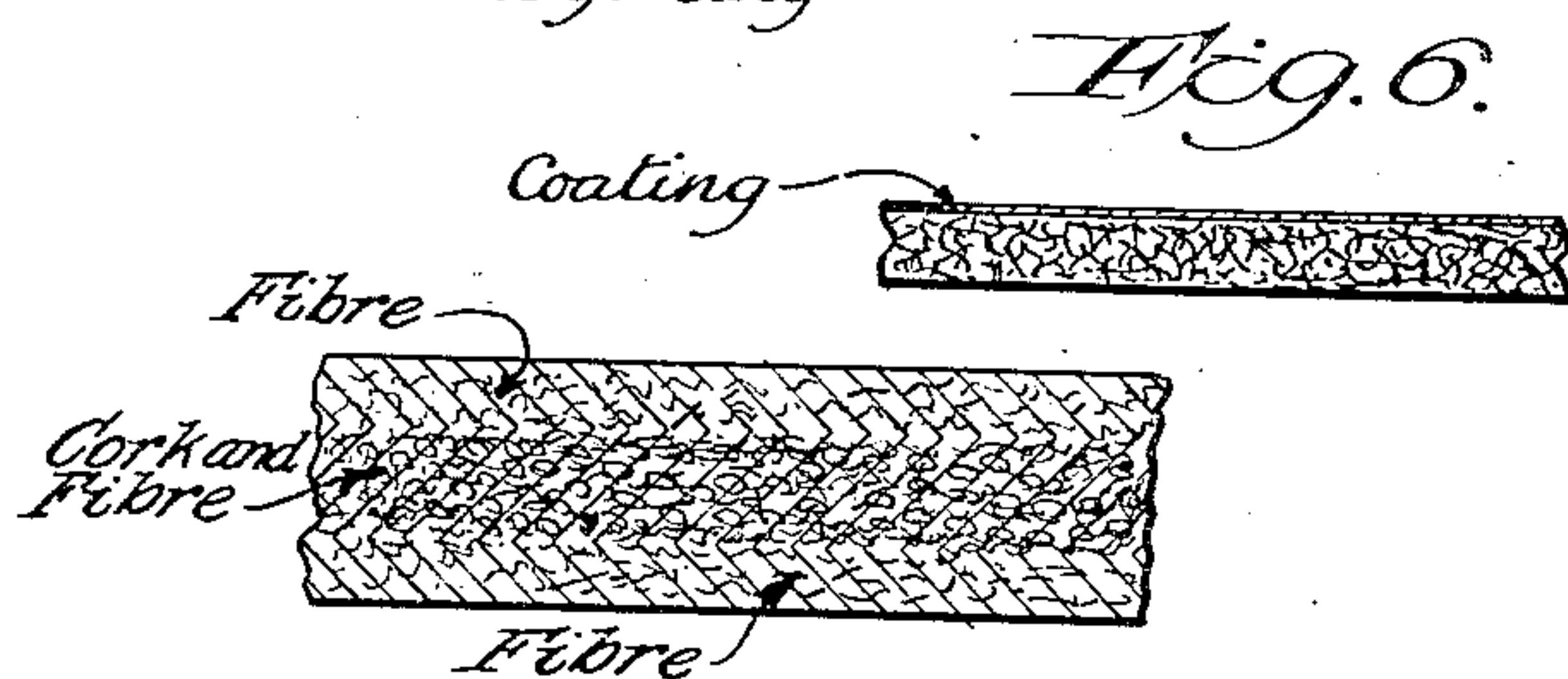
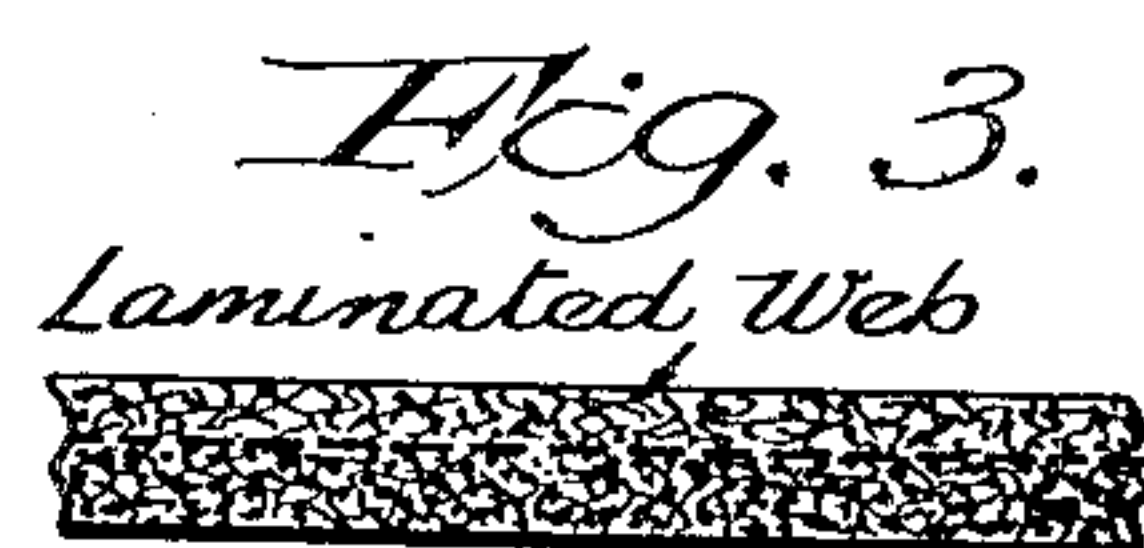
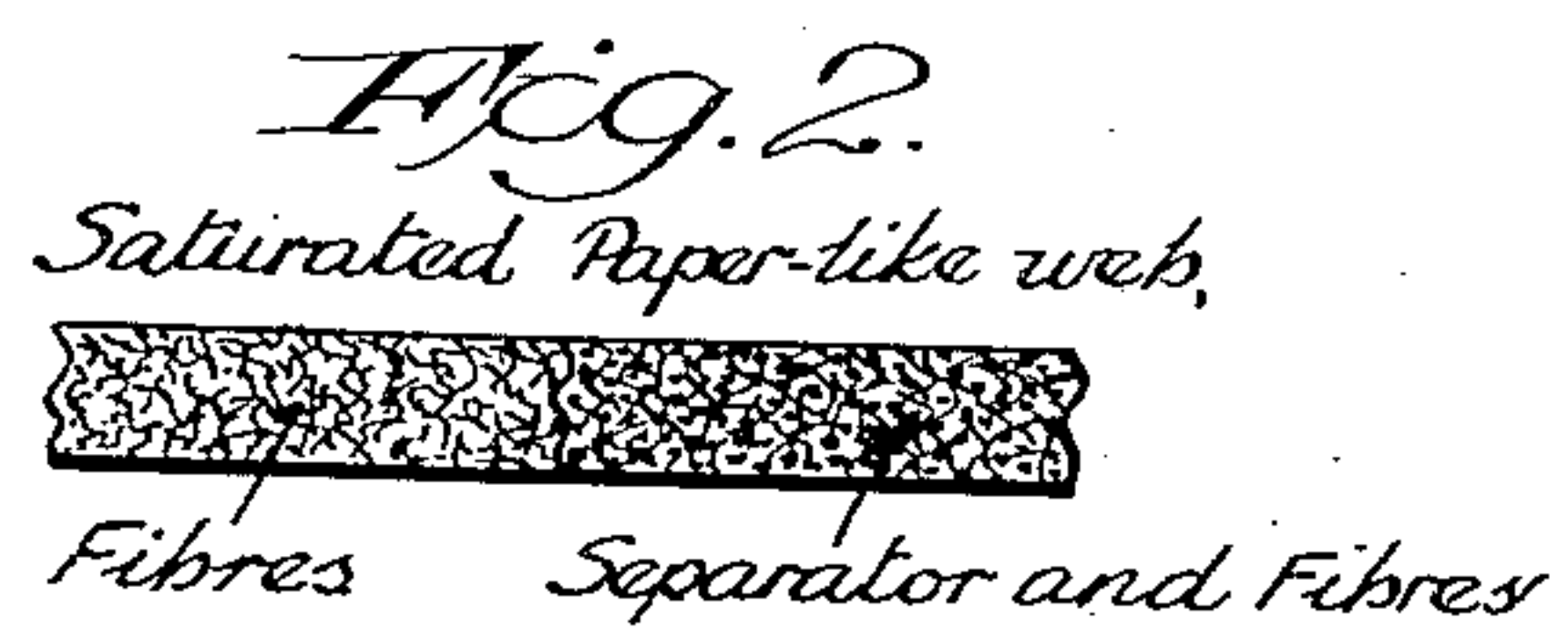
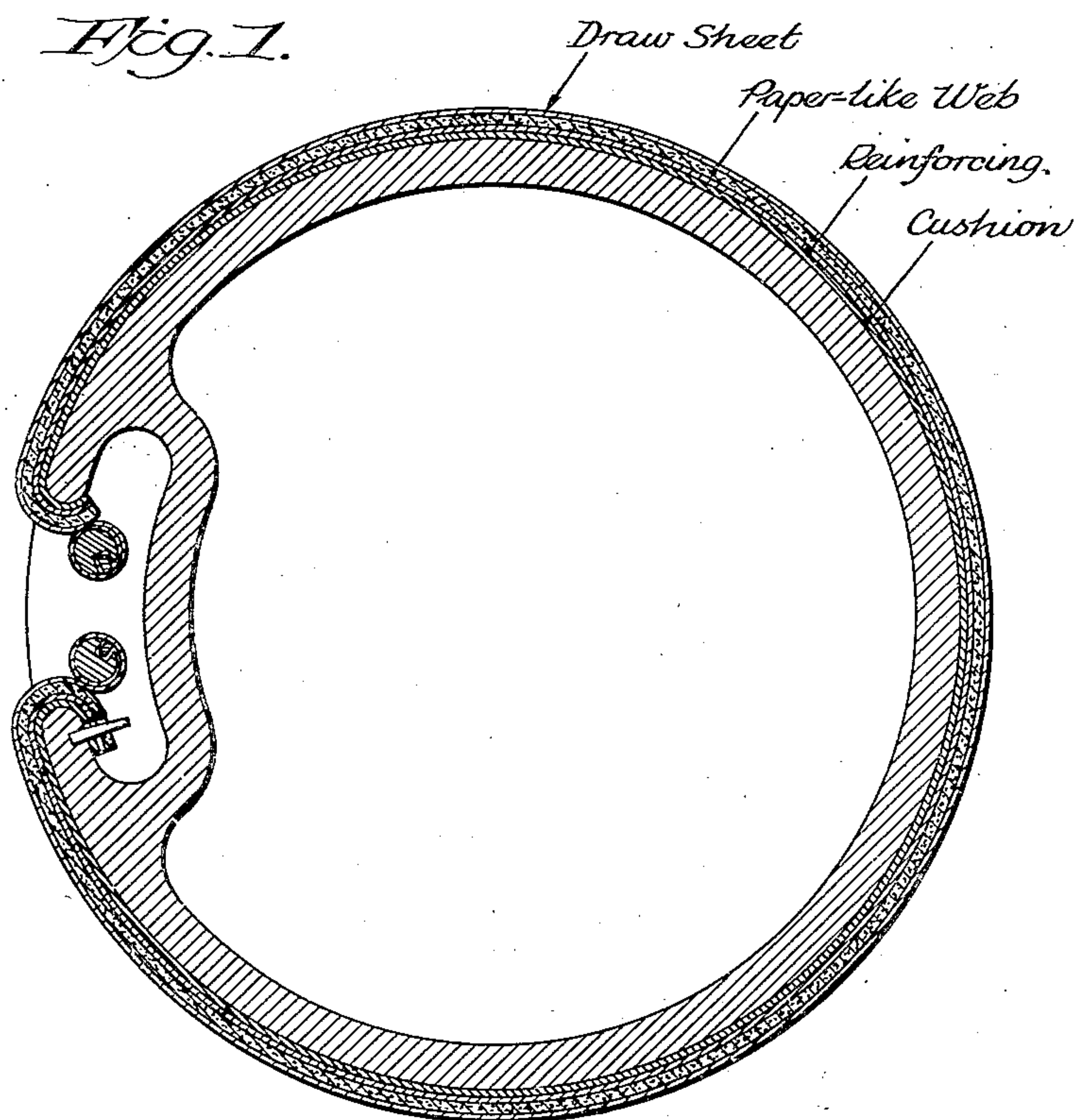
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E. C. SCHACHT

1,897,864

PRINTER'S BLANKET

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## UNITED STATES PATENT OFFICE

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## PRINTER'S BLANKET

Application filed November 21, 1932. Serial No. 643,765.

This invention is a press blanket or make-ready, and comprises in its various embodiments (1) a strong, flexible, resilient paper-like web of fibres, having included therein a  
5 flexible binder, (2) a strong, flexible and resilient paper-like web of fibres and separators also permeated with a flexible binder, and (3) a substantially integral laminated paper-like web composed of a layer or layers ex-  
10 clusively of fibres and one or more layers composed of separators and fibres, and likewise saturated with a flexible binder.

The above mentioned webs will be of uniform thickness and will preferably have  
15 united thereto a reinforcing layer or layers of preformed material such as paper, cloth or vulcanized fibre, and a coating of ink resistant and oil repellant material such as a nitrocellulose film.

20 The object of the invention is to provide a press blanket which will produce clean, clear-cut imprints; which will have long life, and will resist the action of printing inks and oils at the temperatures prevailing in press  
25 rooms, and particularly where the so-called high speed cylinder presses are employed.

I have found that a press blanket particularly adapted for use on impression cylinders can be made by saturating a paper-like  
30 web with a flexible binder such as tanned glue and a plasticizer. The paper-like web is formed on a suitable cylinder, or single or multiple Fourdrinier paper-making machine and subsequently impregnated with a  
35 binder. In the construction of the paper, long strong fibres are preferably employed and the resultant sheet is absorbent in order to facilitate subsequent saturation.

As a specific example, I make paper from  
40 a stock composed of rope or jute fibre which is passed through a bath of glutinous adhesive comprising for example, bone or hide glue, glycerine and water. Immediately after the excess solution has been removed, the web  
45 is passed through a cooling chamber in which the glue is jelled but not frozen and then through a bath of formaldehyde in order to tan the glue. The web is festooned on drying racks, dried and then wound into rolls.

50 In the above process, the paper web is

strengthened; the tanned adhesive is permanently and insolubly incorporated therein as to render the web resistant to the action of oil, inks, and water; and the resilience and flexibility of the web are enhanced. While  
55 the saturated paper web as above described is a satisfactory press blanket for an impression cylinder, I have found that a more acceptable product is obtained for some purposes by uniting the web with a reinforcing  
60 layer or layers on a suitable combining machine, the web and reinforcing layer being coextensive and one or both carrying a suitable adhesive. This reinforcing layer is combined with the body web, i. e., the saturated  
65 fibre web, usually by pressure and the adhesive employed is preferably ink and oil resistant. For the reinforcing layer, I employ such materials as paper, cloth or vulcanized  
70 fibre, (fish paper) of suitable flexibility and thickness, in order to increase the tensile strength and decrease the amount of stretch of the combined sheet.

The reinforcing layer may take the form  
75 (1) of a backing which is on the underside of the blanket, (2) a facing or impression surface which is on the exposed side, or (3) a core disposed between two layers of the saturated paper. Reinforcing layers will be  
80 employed on both sides of the web in some cases so as to provide both a facing and a backing on opposite sides. Likewise, a blanket may be formed in which a reinforcing layer has united to both of its sides, webs  
85 of the saturated paper which in turn have united to one or both of their exposed faces, a facing or a backing, or both. In this way, also a composite structure of any required  
90 thickness is built up having alternate reinforcing layers and saturated paper layers, and provided with a facing or backing or both.

While a web of the type which has been described in which a tanned adhesive is permanently and insoluble incorporated, is of itself  
95 ink and oil resistant, in some cases, and especially when a draw sheet is not employed, I provide the surface which comes in contact with the printing ink, i. e., the exposed surface, with a coating of a flexible material  
100



preferably of nitrocellulose base, which is ink and oil resistant and repellant.

The webs as described above consist of saturated paper alone or united with a layer or layers of reinforcing material and with or without an ink and oil resistant coating have been found to be acceptable press blankets giving clear cut impressions over a long period of time.

As a further development of this idea, I have discovered that a press blanket comprising a paper-like web of fibres and separators of which comminuted cork is one example, will have (1) increased flexibility and (2) enhanced resilience, while at the same time when saturated as hereinafter described, is strong and resistant to the action of printing inks and oils. This web is produced by a paper-making process as described in my U. S. Patents 1,888,409 and 1,888,410, issued November 22, 1932, and has included therein a flexible binder. The paper-like web of this development is likewise made on a paper-making machine of the cylinder, single Fourdrinier, or multiple Fourdrinier type. A stock consisting of the fibres and separators is prepared and formed into a paper-like web in the usual manner. The web so produced has included therein a flexible binder preferably by saturating in a bath.

The fibres with which the cork particles are mixed to form the web should be sufficiently long (a) to contribute tearing strength to the finished product, (b) to mesh and hold the separating particles, i. e., the cork, and (c) to make an absorbent paper, quickly permeable to saturating solutions. Specific examples of the fibres which I employ are:—

Jute,  
Rope,  
Hemp,  
Sisal,  
Kraft pulp fibres,  
Long wood pulp fibres,  
Absorbent alpha cellulose,  
Wood pulp fibres,  
Cotton,  
Linen,  
Asbestos.

By separators, I mean materials of low specific gravity which are compressible and/or elastic, which preferably can be screened to a size and which are of a character which retain compressibility and size when wet or compressed and which continue to separate the contiguous fibres and tend to cause these fibres to return to their original position when pressure has been released.

The relative proportions of cork and fibre in the stock fed to the paper-making machine can be varied and controlled. I have successfully used three parts of fibre to one part of cork by weight and have also used up

to one part of cork to one part of fibres by weight.

As the separator, I prefer comminuted cork which should be of a size which may be termed "effective". That is to say, the cork granules to be effective should not exceed, in cross-section, the desired thickness of the finished sheet, nor should they be smaller in cross-section than the cross-sectional diameter of the fibres. Finer cork than this will act as a filler, thereby preventing the formation of voids and air cells, and also will be lost to a larger extent in the paper making process; likewise smaller particles would be ineffective in acting as separators and hinges about which the fibres can flex. I have used successfully cork particles of a grade from 50 to 150 mesh.

Paper-like webs obtained by the combination of fibres and separators as above set forth, before saturation have the characteristics of strength and compressibility, but tend to crack or exhibit weakened areas if sharply flexed or creased. In other words, this product will have a tendency toward brittleness and will not possess a flexibility or resiliency comparable to the saturated material.

In order to obtain a satisfactory finished product for press blanket use, I permeate the web by permanently and insolubly incorporating therein a flexible and oil and ink repellant binder.

The binder is preferably incorporated by means of a saturated bath. The cork fibre paper-like web made on the paper-making machine is passed through a tank containing a solution of glue and glycerine and water. Thereafter, the web is passed through a cooling zone, to jell the glue but not freeze it and from there is passed through a bath containing a tanning agent such as formaldehyde. The web is dried by festooning on drying racks or in any other suitable manner. The binder creates a stronger union between the fibres and cork particles, increases the strength and resilience of the webs and has the particular function or capacity of overcoming any tendency of the web to crack or weaken under creasing or sharp or localized impacting strains, set up by the irregularities of the printing forms. Also the binder employed is resistant to the action of printing ink and oil and does not disintegrate due to the action of moisture.

The web treated by immersion, as just described, has permanently and insolubly incorporated throughout its cellular structure, the flexible binder. This complete saturation is attained by reason of the interstitial nature of the web. That is to say, the presence of the separator, i. e., the cork particles, and their interlaced relation with the fibres, produces cells, air spaces and voids, whereby the web exerts a maximum capillary effect and the fibres are impregnated and the cork



particles coated. In fact, both the fibres and cork are encased in the binder, and the thorough permeation of the web assures the presence substantially uniformly throughout the web structure of sufficient binder to obtain and preserve the qualities of strength, resilience and flexibility.

Examples of satisfactory binders are glutinous adhesives, such as casein, hide, bone, albuminous and similar glues capable of being rendered insoluble, and which can be treated or tanned, so as to become permanently and insolubly incorporated in the structure of the sheet.

As tanning agents, I resort to one or more of such materials as formaldehyde, paraformaldehyde, hexamethylenetetramine and sodium bichromate. In connection with the glutinous binder and tanning agent, I utilize plasticizers of which glycerine, sulphonated castor oil, diethylene glycol, and aquaresin, are examples.

Further examples of satisfactory flexible binders are natural or synthetic resins of which innumerable varieties are commercially available and which may be treated by conventional processes and with modifying agents as understood in the art to impart the necessary flexibility, resilience and strength.

The fibre and separator web after saturation is used as a press blanket but is preferably combined with a layer or layers or core of reinforcing material as previously described in connection with the saturated fibre web, and will be similarly built up to any desired thickness. Likewise an ink and oil resistant and repellant coating is applied to the surface of the web or the reinforcing layer as previously described.

I also make a press blanket consisting of a laminated paper like web on a cylinder or multiple Fourdrinier machine, one or more layers of said web being composed exclusively of fibres united during the paper-making process with one or more layers composed of cork and fibres, as disclosed in my U. S. Patent 1,888,410, issued November 22, 1932. This laminated structure has included therein a flexible binder as heretofore described. Likewise it is united after saturation with a reinforcing layer or layers and/or core and provided with a coating of oil and ink repellent and resistant material.

The layer composed exclusively of fibres increases the strength of the blanket, provides a smooth coating surface and can be independently controlled during the paper-making process as to density, so as to regulate the amount of saturant which will be absorbed during the saturating process. By the use of the layers composed exclusively of fibres, I strengthen the web sufficiently so as to obviate the use of a reinforcing layer in some cases. By making a laminated structure of this character, moreover, I make a press

blanket by a paper-making process which has layers of different characteristics. For example, the cork and fibre layer has increased resilience with respect to the fibre layer which is relatively harder. Therefore, in some cases, the fibre layer will be used as the impression surface and the cork and fibre layer will provide a resilient cushion. In other cases, the resilient cork fibre layer is used as the impression surface, and the all-fibre layer will provide a coextensive strengthening layer.

The relative thickness of the fibre and cork and fibre webs can be varied and controlled during the paper making process to provide the desired characteristics in the finished press blanket.

The flexible binder which is included in the separator and fibre saturated webs herein described, in addition to its binding function, is employed to enhance the attribute of flexibility and strength which are inherent in the paper-like web. The binders which we employ, such as tanned, plasticized glutinous adhesives are resistant to the action of oil and printing inks.

I have discovered that a saturated web composed exclusively of fibres is resilient. When the web is comprised of separators and fibres, this resilience is enhanced because the separators create multitudinous air spaces or cells. This web when saturated with a flexible binder is flexible to a remarkable degree, so that it can be bent or folded without producing permanent lines of deformation. The substantial fibre content provides the necessary strength in the blanket over its entire area to withstand the localized pressures and impacts of the type faces.

While the fibres and the addition of the flexible binder in the separator and fibre web contribute to its strength, I have found that for use on high speed printing machines, it is often desirable to provide additional strength by using a reinforcing layer of a preformed material, such as paper, cloth or vulcanized fibre.

It is an important advantage of my press blanket that the fibre or cork and fibre layer is produced by a paper-making process. The web is essentially and primarily a paper structure and exhibits fibrous paper-like characteristics both on its surfaces and throughout its cross section. The fibrous nature of this product is very evident upon tearing. The torn or ruptured edges clearly show projecting fibres.

The press blankets herein described are used with the fibre surface or separator and fibre surface as the impression surface with or without an ink and oil resistant coating. Also, a reinforcing facing layer with or without an ink resistant coating is employed as the impression surface. In some cases, the reinforcing layer forming the facing will be



a material inherently resistant to ink and oil.

I have referred herein to a reinforcing layer of vulcanized fibre or fish paper. By this, I mean paper which has been hydrolyzed with sulphuric acid or zinc chloride and then dried. This product is hard, strong and tough, but is extremely springy and flexible. In making a press blanket using a facing layer of vulcanized fibre and a resilient cushioning layer or fibre or cork and fibre, the vulcanized fibre transmits the impacts received during the printing process to the cushioning layer beneath, over a considerable area instead of permitting such impacts to be confined to the contact points. By distributing these impacts through the fish paper, I prevent the compacting of the cushion layer in localized areas, and thereby maintain a smooth uniform surface on the impression surface. The vulcanized fibre being tough and springy resists permanent deformation and returns to its original location when the printing pressures are removed.

In addition to vulcanized fibre, I use other flexible materials which will enable a like effect to be obtained, for example, press board or other hard finished paper board, so-called red rope paper or thin board stock which is oil and ink resistant or rendered so by treatment. Vulcanized fibre is ink and oil resistant, flexible to permit ready application to the impression cylinders without damage to the blanket and because of its strength, it contributes materially to the strength of the blanket. Where increased strength is required, I unite to the web on the opposite surface to that to which the vulcanized fibre is applied, a preformed backing, such as cloth or paper with a suitable adhesive. In some cases, oil and ink resistant qualities are further cared for by coating the vulcanized fibre with a suitable coating material.

The various embodiments of my invention herein described may be produced to a thickness of a standard "make-ready", in which case the usual under layer may be omitted. Where the usual cushion material under-layer of rubber or felt is employed, the press blanket of my invention will be made of the necessary thickness to accommodate such under-layer either as separate layers or integral combinations thereof.

By cushion material, I refer to one of a compressible nature such as felt, rubber, and saturated fibre, and saturated cork and fibre or in other words, materials which are resilient and characterized by a high degree of compressibility and rebound.

Any of my press blankets above mentioned may be used separately as top or bottom layers. As previously described, I produce press blankets having particular advantages for use as top or bottom layers. For example, to

provide resiliency, I use a bottom layer composed of a resilient saturated cork and fibre web reinforced with cloth. As the top layer, I use a saturated fibre web reinforced with cloth and provided with an ink and oil resistant coating, or both layers may be of cork and fibre having different coefficients of resiliency which is obtained for example, by varying the relative percentage of the fibre in the two layers. It is evident that any of these various combinations may be provided in the form of a unitary web by integrally laminating the same in the paper-making process or by adhesively uniting preformed webs.

It is understood that the surface of the fibre or cork and fibre paper-like web is, in some cases, calendered during the paper-making process in order to secure a smooth surface. After the web has been saturated with an ink resistant material or provided with a coating having this characteristic, the press blanket can be used without a draw sheet.

A further development of the present invention comprises a printing press blanket composed of layers of saturated paper-like webs, as described herein and consisting of fibres, adhesively united to the desired thickness of the blanket. In like manner webs of cork and fibre will be combined to produce a laminated blanket. Also I adhesively unite in some cases a paper-like web or webs of separator and fibre with a paper-like web or webs composed of fibres only. In this manner a blanket having various characteristics of resiliency may be built up, and it will be understood that as many layers will be used as required, and where different types of webs are employed they may be alternately combined or a web of one type will constitute a core and the other webs a facing, backing or both.

Such laminated structures wherein the layers or paper-like webs are adhesively united, have combined therewith a reinforcing layer, or a facing layer or both as herein described. Also, I apply to the impression surfaces of such blankets a coating of ink and oil resistant material, or I apply this coating to the reinforcing facing layer.

Referring to Figure 1 of the drawing, I have shown in section a blanket comprising one of the saturated paper-like webs above referred to having a reinforcing or backing layer and combined with or otherwise united to, or separably superposed upon an under-layer or covering such as rubber, felt, or one of the saturated or unsaturated webs described herein, and in position upon the impression cylinder of a printing press, an overlay or draw sheet being also employed.

In Figure 2, there is shown a section of a press blanket composed of a saturated paper-like web which, for purposes of illustration,



represents (1) a saturated web composed solely of fibres or (2) a saturated web formed of cork and fibres as prepared by a paper-making operation.

5 Figure 3 is a similar view of a press blanket comprising a laminated web having, in some cases, reversible impression surfaces, and which, for purposes of illustration, represents (a) a substantially integral web as formed on  
10 a paper-making machine in which the layers having different coefficients of resiliency, one layer comprising fibres solely and another cork and fibres, or both composed of cork and fibres and having respectively different  
15 resiliencies; (b) a blanket wherein the said layers are separably superposed; and (c) a blanket ((a) or (b)), wherein the layers are of equal or different thickness in accordance with the strength and resiliency re-  
20 quired and (d) a blanket having (1) paper-like layers of fibres adhesively united, (2) paper-like layers of cork and fibres adhesively united, and (3) a paper-like layer of fibres united to one of separator and fibres, the  
25 said layers having their resiliency coefficients and thickness the same or varied as described in (a), (b), (c). The paper-like layers in each case are preferably saturated.

30 The disclosure in Figure 4 illustrates a section of one of the press blankets represented in Figures 1, 2 and 3 having (a) a reinforcing layer forming a backing, (b) a reinforcing layer forming a facing, and (c) both fac-  
35 ing and backing layers of the same or different materials united to the opposite sides of the body web, for example, a facing layer of fish paper or vulcanized fibre and a backing layer of paper or cloth. Figure 4<sup>a</sup> illustrates  
40 a blanket as formed on a paper machine wherein the paper-like layers of fibres are integrally united to a core of cork and fibres on opposite sides thereof during the paper making operation. Obviously the core may  
45 be the paper-like web of fibres and the surface layers, paper-like webs of separator and fibres integrally bonded during the paper making operation.

50 Figure 5 is a view of a blanket in which the reinforcing layer takes the form of a core to the opposite sides of which are united webs of the type described herein and shown in Figures 1, 2, 3 and 4, for example (a) webs  
55 of fibres alone, (b) webs of cork and fibre, (c) the laminated paper-like webs, and (d) webs of different coefficients of resiliency, as webs of fibres only, or one of fibres only and another of cork and fibres, or webs of different resiliency and each composed of cork and fibres; such layers being of various thick-  
60 ness relative to each other determined by the strength and resiliency desired, and also having in some cases facing and backing layers as described and shown in Figure 4.

65 Figure 6 is a sectional view showing an ink and oil repellant coating applied to the ex-

posed impression surfaces of one of the webs referred to herein, and by representation, to the reinforcing layer forming the facing and applied to such webs as disclosed in Figure 5.

70 I have referred herein to a reinforcing layer or layers (see Figure 4) and it will be understood that I will employ such a means on either one or both sides of the blanket. Thus, I provide a layer of heavy cloth united to the  
75 bottom of a saturated web as described herein, for example a cork fibre ply, and then adhesively unite a fine woven, smooth textured cloth on the impression surface. The heavy cloth will provide strength and resistance  
80 to stretching, while the top ply provides a smooth impression surface better adapted to receive a finishing coating.

Referring to the drawings it will be understood that in Figures 2, 4 and 5 I have il-  
85 lustrated the light and dark areas to represent as far as possible, the various combinations of saturated webs, having in mind the saving of excessive views in the drawing. The re-  
90 spective layers themselves are, however, homogeneous, as described herein.

Various combinations and structures may be resorted to within the purview of this ap-  
95 plication, all of which are considered to be comprehended within the scope of the appended claims.

I claim:—

1. A printing press blanket comprising a paper-like web of fibres and saturated with a flexible, ink and oil resistant binder, and com-  
100 bined with a reinforcing layer.

2. A printing press blanket comprising a paper-like web consisting of fibres and hav-  
105 ing permanently and insolubly incorporated therein a flexible, ink and oil resistant binder, and combined with a reinforcing layer.

3. A printing press blanket comprising a paper-like web consisting of fibres and sepa-  
110 rators and saturated with a flexible, ink and oil resistant binder, and combined with a reinforcing layer.

4. A printing press blanket comprising a paper-like web consisting of fibres and com-  
115 minuted cork, and having permanently and insolubly incorporated therein a flexible, ink and oil resistant binder, and combined with a reinforcing layer.

5. A printing press blanket comprising a paper-like web consisting of fibres and sepa-  
120 rators, which components are present in such amounts and in such cooperative relation as to render the web resilient, the web saturated with a flexible, ink and oil resistant binder and combined with a reinforcing layer.

6. A printing press blanket comprising a paper-like web consisting of fibres and com-  
125 minuted cork, the fibres being in dominant amount by weight, said web saturated with a flexible, ink and oil resistant binder, and combined with a reinforcing layer.

7. A printing press blanket comprising 130



paper-like layers, one of fibres and another of separators and fibres, and saturated with a flexible, ink and oil resistance binder.

8. A printing press blanket comprising a substantially integral laminated paper-like web having layers of different resiliencies, said web saturated with a flexible, ink and oil resistant binder.

9. A printing press blanket comprising a substantially integral laminated paper-like web having layers of different resiliencies, said web saturated with a flexible, ink and oil resistant binder, and combined with a reinforcing layer.

10. A printing press blanket comprising paper-like layers, one of fibres and another of separators and fibres, and saturated with a flexible, ink and oil resistant binder, one of said layers combined with a reinforcing layer.

11. A printing press blanket comprising a reinforcing core having united to its opposite sides a paper-like web consisting of fibres and saturated with a flexible, ink and oil resistant binder.

12. A printing press blanket comprising a reinforcing core having united to its opposite sides a paper-like web consisting of fibres and separators and saturated with a flexible, ink and oil resistant binder.

13. A printing press blanket comprising a core of reinforcing material, a paper-like layer of fibres united to one side of said core, a paper-like layer of fibres and separators united to the opposite side of said core, said paper-like layers saturated with a flexible, ink and oil resistant binder.

14. A printing press blanket comprising a paper-like web of fibres and saturated with a flexible, ink and oil resistant binder, and combined with a reinforcing layer, and a coating of ink and oil resistant material.

15. A printing press blanket comprising a paper-like web of fibres and saturated with a flexible, ink and oil resistant binder, and combined with a reinforcing layer, said reinforcing layer comprising the impression surface of the blanket, and a coating of ink and oil resistant material thereon.

16. A printing press blanket comprising a paper-like web of fibres and separators and saturated with a flexible, ink and oil resistant binder and combined with a reinforcing layer and a coating of ink and oil resistant material.

17. A printing press blanket comprising a paper-like web of fibres and separators and saturated with a flexible, ink and oil resistant binder and combined with a reinforcing layer, said reinforcing layer comprising the impression surface of the press and a coating of ink and oil resistant material thereon.

18. A printing press blanket comprised of paper-like layers, one of fibres and another of separators and fibres and saturated with a

flexible, ink and oil resistant binder and combined with a reinforcing layer and a coating of ink and oil resistant material.

19. A printing press blanket comprising a paper-like web of fibres and saturated with a flexible, ink and oil resistant binder, and combined with a reinforcing layer and a layer of cushion material.

20. A printing press blanket comprising an impression surface layer of vulcanized fibre which is capable of distributing the localized impacts encountered during the printing process over a larger area of a compressible layer which is located beneath and combined with such impression layer.

21. A printing press blanket comprising an impression surface layer of vulcanized fibre which is capable of distributing the localized impacts encountered during the printing process over a larger area of a compressible layer which is located beneath and combined with such impression layer and combined with a reinforcing layer.

22. A printing press blanket comprising a layer of compressible material united on one side to a layer of vulcanized fibre to form the impression surface and united with a reinforcing layer on the opposite side.

23. A printing press blanket comprising a paper-like web of fibres and saturated with a flexible, ink and oil resistant binder, and combined with a reinforcing layer, said reinforcing layer forming the impression surface and comprising vulcanized fibre.

24. A printing press blanket comprising a paper-like web consisting of fibres and separators and saturated with a flexible, ink and oil resistant binder, and combined with a reinforcing layer, said reinforcing layer forming the impression surface and comprising vulcanized fibre.

25. A printing press blanket comprising a paper-like web of fibres and saturated with a flexible, ink and oil resistant binder and combined on one side with an impression surface layer comprising vulcanized fibre and combined on the other side with a reinforcing layer.

26. A printing press blanket comprising a paper-like web consisting of fibres and separators and saturated with a flexible, ink and oil resistant binder and combined on one side with an impression surface layer comprising vulcanized fibre and combined on the other side with a reinforcing layer.

27. A printing press blanket comprising a paper-like web consisting principally of fibres and saturated with a flexible, tanned glutinous adhesive and combined with a reinforcing layer.

28. A printing press blanket comprising a paper-like web including as its principal ingredients, fibres and comminuted cork and having included therein, a flexible, tanned,



glutinous adhesive and combined with a reinforcing layer.

29. A printing press blanket comprising paper-like layers, one of fibres and another of separators and fibres and saturated with a flexible, tanned, glutinous adhesive and combined with a reinforcing layer.

30. A printing press blanket comprising layers of paper-like webs of fibres combined to form an integral structure and saturated with flexible ink and oil resistant binder.

31. A printing press blanket comprising layers of paper-like webs of fibres adhesively united to form an integral structure and saturated with flexible ink and oil resistant binder.

32. A printing press blanket comprising layers of paper-like webs of fibres adhesively united to form an integral structure and saturated with flexible ink and oil resistant binder, and a coating of ink and oil resistant material on one face of the blanket.

33. A printing press blanket comprising layers of paper-like webs of fibres adhesively united to form an integral structure and saturated with flexible ink and oil resistant binder, and a reinforcing layer combined with one face of the blanket.

34. A printing press blanket comprising layers of paper-like webs of fibres adhesively united to form an integral structure and saturated with flexible ink and oil resistant binder, and a reinforcing layer combined with one face of the blanket, said reinforcing layer forming the impression surface and having a coating of oil and ink resistant material.

35. A printing press blanket having layers of paper-like webs of cork and fibres adhesively united to form an integral structure and saturated with a flexible ink and oil resistant binder.

36. A printing press blanket comprising layers of paper-like webs integrally combined, the exterior layers comprising paper-like webs of fibres and the interior layer a paper-like web of cork and fibres, said webs saturated with a flexible ink and oil resistant binder.

37. The combination with the impression cylinder of a printing machine, of a blanket therefor of rubber-like material, and a second blanket disposed over said first mentioned blanket and including a flexible and resilient paper-like web composed of comminuted cork and fibres impregnated with a binding agent resistant to oils and inks, said cork and fibre layer having a reinforce united thereto.

38. The combination with the impression cylinder of a printing machine, of a blanket therefor comprising a flexible and resilient paper-like web composed of comminuted cork and fibres, and a second blanket disposed over said first mentioned blanket and comprising

a paper-like web formed of comminuted cork and fibres impregnated with a binding agent resistant to oils and inks, one of said blankets having a reinforce united thereto.

39. The combination with the impression cylinder of a printing machine, of superposed separable blanket thereon, one of said blankets comprising a paper-like web formed of comminuted cork and fibres saturated with an ink and oil resistant binder.

In testimony whereof I affix my signature.  
ELMER C. SCHACHT.

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**CERTIFICATE OF CORRECTION.**

Patent No. 1,897,864.

February 14, 1933.

**ELMER C. SCHACHT.**

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 2, line 99, for "saturated" read "saturating"; page 6, line 3, claim 7, for "resistance" read "resistant"; page 7, line 72, claim 39, for "blanket" read "blankets"; and that said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 11th day of April, A. D. 1933.

(Seal)

**M. J. Moore,**  
Acting Commissioner of Patents.