A. WOODRUFF.

INKING PAD.

APPLICATION FILED SEPT. 29, 1920.

1,381,156. Patented June 14, 1921.

Fig. 1

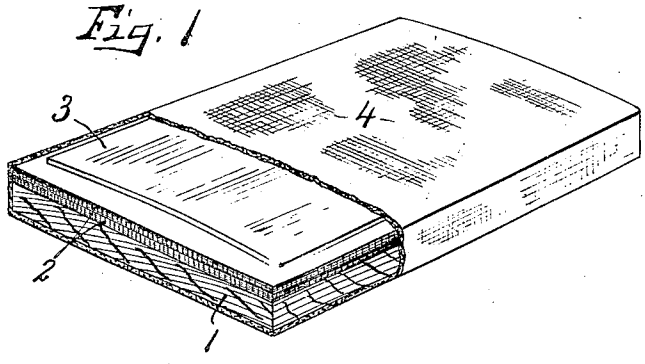
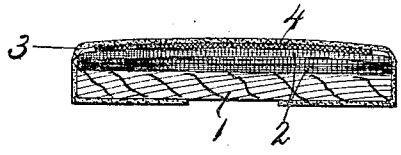


Fig. 2.



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INKING-PAD.

1,381,156. Specification of Letters Patent. Patented June 14, 1921.

Application filed September 29, 1920. Serial No. 413,554.

To all whom it may concern:

Be it known that I, ALONZO WOODRUFF, of Auburn, in the county of Cayuga, in the State of New York, have invented new and useful Improvements in Inking-Pads, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improvements in inking pads adapted to be used more particularly in supplying ink to rubber stamps which may be impressed against the face thereof for transferring the impressions of the stamp to other articles. In pads of this character, considerable difficulty is experienced in maintaining a proper distribution of the ink over the surface of the pad to which the stamp is applied owing to variations in the consistency of the ink in the absorbent elements of the pad under varying atmospheric temperatures, and also from frequent compression of the absorbent elements tending to expel the liquid therefrom.

That is, when the pad is confined within the usual case and the latter exposed to warmer atmospheric temperatures, the ink seems to exude from the absorbent elements of the pad and to collect to an excessive degree over and upon the surface thereof and upon the surface of the usual fabric covering to which the rubber stamp is directly applied, the result of which is to transfer an excessive quantity of the ink to the stamp and to blur the record produced by the stamp.

The main object of my invention is to reduce these objectionable results to a minimum by restricting the direct flow of the ink from the absorbent elements to the surface of the fabric covering, or, in other words, by interposing a layer of ink-impervious material between the upper surface of the absorbent element and overlying portion of the fabric covering in such manner that the latter will contact with the absorbent elements only along the marginal edges thereof, or wholly outside of the marginal edges of the impervious layer so that the only ink which reaches the active surface of the pad to which the same is applied is that which can be taken up and distributed by the capillary attraction from the small area of contact of the fabric covering with the marginal edges of the absorbent element across the relatively larger area of said fabric across the upper surface of the impervious layer.

Another object is to bind the fabric covering around the supporting base and superposed layers of absorbent and impervious material in such manner that the impervious layer will be slightly concavo-convex in cross-section with its convex face uppermost or adjacent the fabric covering to permit any excess ink which may lodge thereon to flow back of the marginal edges of the absorbent layers, where it is held in reserve for re-distribution over the active surface of the fabric covering when the pad is compressed by the application of the stamp thereto.

Other objects and uses relating to specific parts of the device will be brought out in the following description.

In the drawings:

Figure 1 is a perspective view of a pad embodying the various features of my invention.

Fig. 2 is a transverse sectional view of the same pad.

As illustrated, this pad comprises a substantially flat and rectangular base block —1—, an absorbent element —2—, an ink-impervious layer —3— and a fabric covering —4—, all of which parts are assembled one upon each other in the relation named to form a unitary laminated structure.

The main support or base block —1— may be of any suitable size convenient for handling and is preferably made of wood treated with any suitable liquid and acid proof material to preserve it against deterioration and to prevent absorption of the ink thereby.

The absorbent element —2— may be made of one or more layers of felt or equivalent material capable of receiving and retaining by absorption a quantity of ink for an indefinite period of time, said absorbent layers being preferably of substantially the same surface area as that of the base block —1— upon which they rest and are usually impregnated with the desired ink without oversaturation.

The ink-impervious layer —3— prefer-

ably consists of a comparatively thin sheet of cardboard or other suitable material of substantially the same form as that of the block —1— and absorbent element —2—, but of slightly less area than that of the absorbent element, so that when placed upon the upper surface thereof, it will leave the marginal edges of the absorbent element projecting slightly beyond the corresponding edges thereof. In other words, the impervious element —3— lies wholly within the marginal edges of the absorbent element —2— and is treated or coated in such manner as to render it liquid proof or impervious to the passage of the ink therethrough.

The covering —4— is preferably made of comparatively thin, tough fabric extending across and upon the entire upper face of the impervious layer —3— and across the marginal edges or sides of the absorbent element —2— and supporting base —1—, and has its marginal edges secured by any suitable adhesive, or otherwise, to the underside of said base. This covering is preferably finely porous, and, therefore, more or less pervious to the ink and is usually drawn tightly across the upper surface of the impervious element —3— and across the edges of the elements —1— and —2— with sufficient force to draw the marginal edges of the impervious element or layer —3— slightly below the horizontal plane of its central portion so that the layer —3— is slightly concavo-convex in cross-section with its convex face uppermost and in close contact with the adjacent portion of the covering —4—, so that if there is any tendency of the ink to accumulate excessively upon the active portion of the pad it will flow back from the center toward the marginal edges of the pad and be absorbed by the edges of the absorbent element —2—, thereby assisting the plate —3— in preventing accumulation of excess quantities of ink over and upon the active surface of the pad.

The greatest advantage, however, is derived from the interposition of the impervious layer —3— between the active surface of the covering —4— and absorbent element —2— in that it restrains the up-flow of the ink from the major portions of the absorbent element to the superposed portion of the fabric covering —4— where the pressure of the stamp is most frequently applied, and permits the supply of ink to flow only from the marginal edges of the absorbent element to the superposed portion of the covering —4—, where it is gradually distributed by capillary attraction in extremely small quantities, or just sufficient to produce the desired transfer of the ink from the fabric surface to the stamp without liability of an excess supply or blurring effect of the stamp when the ink is transferred to some other article.

This result is further augumented by the impervious layer —3— which, being made of cardboard, impregnated with suitable liquid-proofing, is considerably harder than the fabric covering —4— or absorbent element —2—, thereby causing all portions of the stamp to be inked uniformly and reducing to a minimum the liability of an excess supply of ink to any portion of the stamp.

Another important feature of the invention is that the impervious layer —3— lies in close juxtaposition not only to the absorbent pad, but also to the overlying distributing layer or cover, or, in other words, the nearness of the inking surface to the source of supply or pad, the advantage of which is that it affords a more direct and, therefore, a more rapid and even distribution of the ink from the reservoir or pad to the inking surface without liability of over-saturation.

The structure shown and described has been found to be highly efficient in carrying out the objects and accomplishing the results named, but I do not wish to limit myself to the particular materials described nor to the detailed construction described.

What I claim is:

1. An inking pad comprising a base block, an ink-saturated body resting on said block, a relatively thin ink-impervious layer on the upper face of the ink-saturated body, and a fabric covering across the upper face of the impervious layer and attached to the base block.

2. An inking pad having a layer of ink-saturated material for retaining the ink, a relatively thin layer of ink-impervious material resting on the upper surface of the ink saturated layer, and a fabric covering across and in close contact with the upper face of the impervious layer and contacting with the edges of the ink-saturated layer to convey the ink from the edges only of the absorbent layer to the portions of the covering overlying the impervious layer.

3. An inking pad comprising a base block, an ink saturated element resting on said block, a flexible ink impervious layer resting on the upper face of the ink-saturated element wholly within the marginal edges thereof, and a fabric covering across the upper face of the impervious layer and attached to the base block.

4. An inking pad comprising a base block, an ink absorbent element resting on said block, an ink impervious layer resting on the upper face of the absorbent element wholly within the marginal edges thereof, and a fabric covering across the upper face of the impervious layer and attached to the base block, said covering being drawn sufficiently tight to cause the marginal edges of the impervious layer to be depressed below the horizontal plane of its central portion, whereby any excess ink tending to accumulate on the central portion of the impervious

layer may flow toward the marginal edges thereof and on to the corresponding edges of the absorbent element.

5. An inking pad having an ink absorbing layer and a suitable support therefor in combination with an ink-impervious layer resting upon the absorbent layer and having its marginal edges disposed some distances within the marginal edges of the absorbent layers, and a fabric-covering inclosing the impervious layer and marginal edges of the absorbent layer.

In witness whereof I have hereunto set my hand this 20th day of September 1920.

ALONZO WOODRUFF.

Witnesses:
H. E. CHASE,
ROSE G. CARROLL.