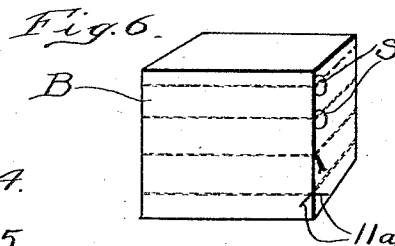
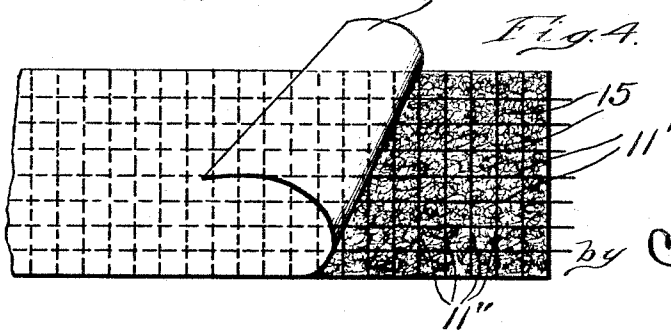
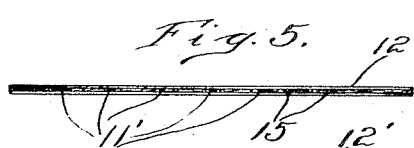
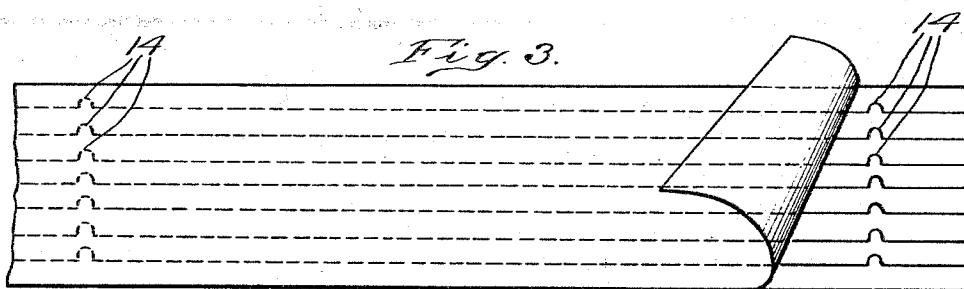
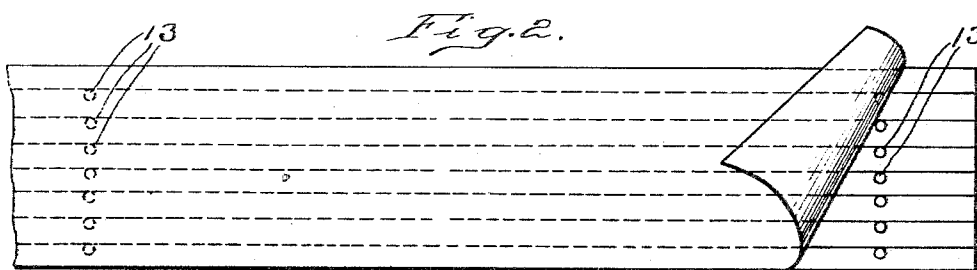
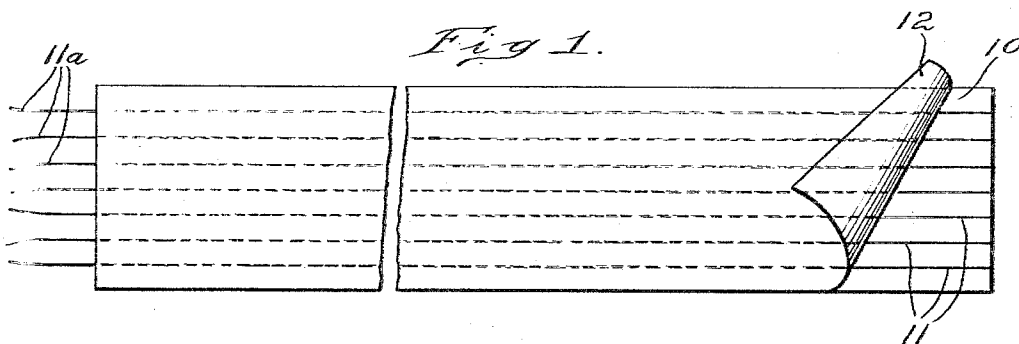


M. BROWN.
WIRE REINFORCED WRAPPING.

APPLICATION FILED MAY 14, 1918. RENEWED MAR. 29, 1920.

1,358,283.

Patented Nov. 9, 1920.



Inventor:

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by Clyde L. Rogers
his atty.

UNITED STATES PATENT OFFICE.

MAX BROWN, OF BOSTON, MASSACHUSETTS.

WIRE-REINFORCED WRAPPING.

1,358,283.

Specification of Letters Patent.

Patented Nov. 9, 1920.

Application filed May 14, 1918, Serial No. 234,405. Renewed March 29, 1920. Serial No. 369,748.

To all whom it may concern:

Be it known that I, MAX BROWN, a citizen of the United States, and resident of Boston, county of Suffolk, Commonwealth of Massachusetts, have invented an Improvement in Wire-Reinforced Wrappings, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts in each of the several views.

This invention relates to paper or like sheet material that is treated to make it suitable for wrapping and like purposes involving severe usage. One prime object of the invention is to provide a wrapping paper preferably treated with waterproof substance or adhesive that has also incorporated therewith reinforcing metallic wires arranged at relatively close intervals. In a preferred embodiment and as herein shown these reinforcing wires extend lengthwise of the paper web making the web very strong in the direction of its length and adapting it for spiral and like wrapping uses. The invention is also well adapted for use in wrapping packages that may be sealed against tampering with, by uniting projecting ends of the reinforcing wires and applying a lead or like metallic seal thereto. The foregoing and other objects and advantages of the invention will more fully appear from the following detailed description, and the distinctive features of novelty will be pointed out in the appended claims.

Referring to the drawings:

Figure 1 is an elevation showing a portion of a paper web with one of the paper layers turned back to some little extent and illustrating one form of the invention;

Fig. 2 is an elevation showing a slightly modified form of the invention;

Fig. 3 is a similar elevation showing another slight modification;

Fig. 4 is a similar elevation showing another modification;

Fig. 5 is an end view of the form shown in Fig. 4; and

Fig. 6 is a perspective showing a box or container sealed in accordance with my invention.

In carrying out my invention I provide a paper web or sheet 10 to constitute one layer of the composite or built up sheet of the

present invention. This paper layer 10 is preferably treated with suitable waterproofing asphaltic or like pitch that is applied in a hot fluid condition and becomes relatively hard though not unduly stiff as to the thin coating thereof on the paper, when it cools. To the coated surface of this sheet and preferably while the same is still hot and relatively fluid I apply a series of reinforcing metallic wires 11 which preferably extend in parallelism lengthwise of the paper and may be spaced any suitable distance apart, a distance of about three-eighths inch being appropriate for many uses and the wires themselves being of course relatively fine, though large enough to exhibit the requisite strength and reinforcing quality. These wires and the coated surface are covered by another paper layer 12 which is also preferably coated with hot pitch and has its coated surface pressed over the wire layers and against the coated surface of the first sheet. The reinforcing wires are thus firmly embedded and concealed between the layers of paper and produce a wrapping that is of very great strength. In order to employ this wrapping for protecting packages, as the box B, with a seal to insure against tampering, the wires projecting from the ends of the sheet as seen at 11^a may be secured to similar wire ends of an adjacent meeting edge of the wrapping and these ends twisted together and then sealed by a suitable lead or like seals. To insure against the pulling out of the wires 11 from between the paper layers I may form the same with loops at intervals as seen at 13 in Fig. 2 which thus anchor and hold said wires against displacement. Or in place of such loops I may form kinks 14 at intervals in the wires as seen in Fig. 3. In the form of the invention shown in Fig. 4 I spread over the coated surface of the paper layer a layer of lint or like unspun textile or similar fiber, or sawdust, cork dust or other suitable filler 15, this being either sprinkled or blown on to the required extent. The reinforcing wires as shown, in this case include cross laid wires 11' in conjunction with the longitudinal wires 11' applied to this lint surface, and as the other coated paper layer 12' is applied and rolled down over said wires preferably under some little pressure, the wires

are embedded and caused to sink into the lint mass so as to leave no perceptible ridges showing through the paper layers. It will be understood that the cross laid wires may also be employed in the first described forms. This lint or like fibrous layer embedded in the pitch surface also largely reinforces and strengthens the sheet transversely as well as lengthwise in conjunction with the reinforcing wires. Wrapping material thus produced is adaptable to a wide variety of uses where exceptional protection and safeguarding of the goods is required and the possibility of sealing the wire ends makes possible a substantial assurance against tampering with the contents of a box or like container made from the present material. While I show herein the reinforcing wires as extending only lengthwise of the paper web it is to be understood that this is merely illustrative and that any desired disposition and arrangement of such wires is within my invention in its broader aspects. Likewise that the particular means shown for anchoring the wires against displacement in the material are merely illustrative and in general the present embodiment is to be understood as illustrative and not restrictive, reference being had to the appended claims rather than to the foregoing description to indicate the scope of the invention.

Having described my invention, what I

claim as new and desire to secure for Letters Patent is:

1. Wrapping or covering material composed of a plurality of sheets of pitch treated paper having interposed therebetween a layer of loose lint or the like, and with a series of metallic reinforcing wires embedded in such lint.

2. Wrapping material or covering composed of two sheets of pitch treated paper having interposed therebetween a layer of loose lint or the like embedded in pitch, and having metallic reinforcing wires associated therewith.

3. Wrapping or covering material composed of two pitch treated sheets with pitch coated surfaces thereof pressed together with an interposed series of reinforcing metallic filaments equipped at intervals with offset kinks or loops embedded in the pitch between said sheets to prevent displacement.

4. Wrapping or covering material composed of a plurality of pitch treated sheets with adhesive coated surfaces thereof pressed together and having a series of reinforcing metallic wires embedded in, and held by such adhesive, said wires having at intervals offset portions also embedded in said adhesive to hold the same against displacement.

In testimony whereof, I have signed my name to this specification.

MAX BROWN.