J. B. SHANDS

SHIPPING TAG.

APPLICATION FILED JUNE 11, 1914. RENEWED JUNE 15, 1918.

1,283,927. Patented Nov. 5, 1918.

Fig. 1.

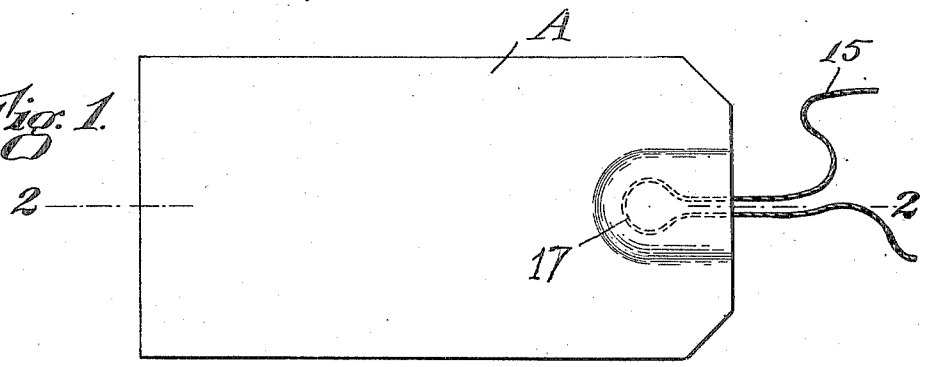


Fig. 2.

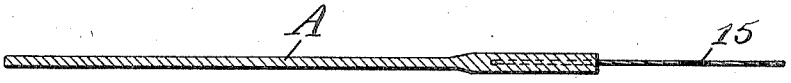
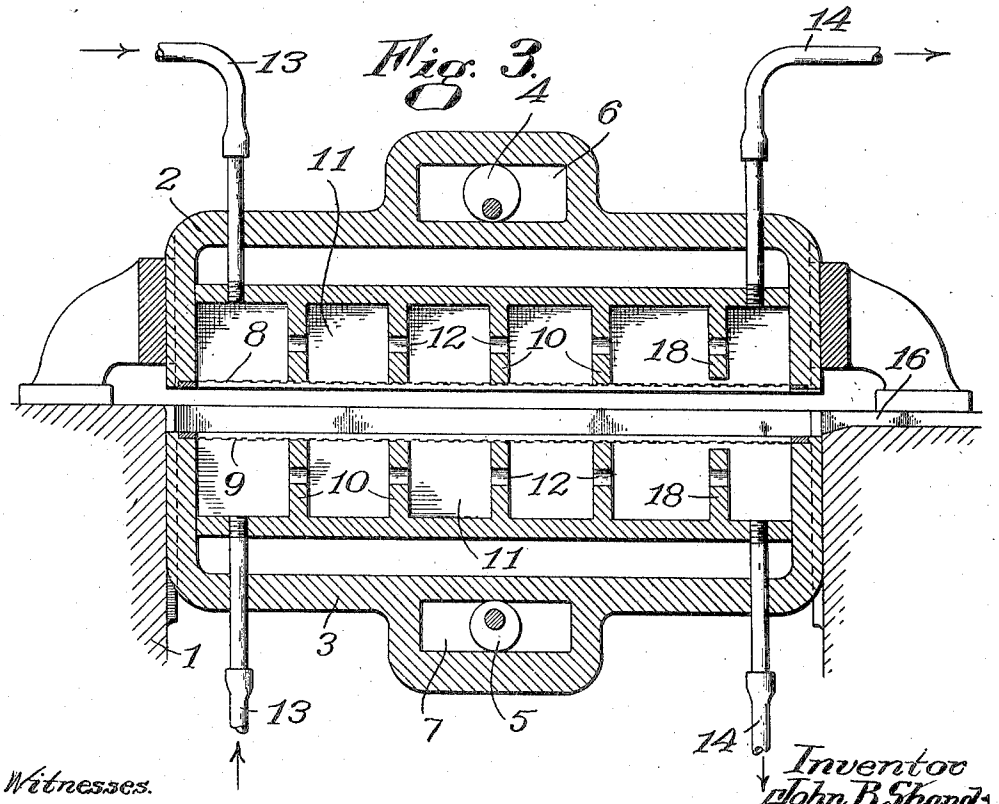


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN B. SHANDS, OF WORCESTER, MASSACHUSETTS, ASSIGNOR OF ONE-FOURTH TO JAMES H. WOOLFOLK, ONE-FOURTH TO DAVID D. BROWN, ONE-FOURTH TO ROSWELL B. HAZARD, AND ONE-FOURTH TO ROSWELL W. HAZARD, ALL OF WORCESTER, MASSACHUSETTS.

SHIPPING-TAG.

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To all whom it may concern:

Be it known that I, JOHN B. SHANDS, a citizen of the United States, residing at Worcester, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and useful Improvement in Shipping-Tags, of which the following is a specification, accompanied by drawings forming a part of the same, illustrating the construction and method of making my improved tag.

The object of my invention is to provide a shipping tag which obviates a looped string or wire upon the outer surface of the tag and provides a homogeneous body portion by which the string or wire is securely held. In the usually practised method of constructing tags, a hole is provided near one end through which a double string or wire is passed and looped. This method of attaching a string or wire to a shipping tag places an undue strain upon a weakened portion of the tag which is ordinarily strengthened by a reinforcing strip or washer attached by some adhesive material to the outer surface of the tag. The string thus applied is liable to become separated from the tag and the presence of a loop upon the outer surface of the tag is objectionable. It has also been proposed to insert the string or wire between two sheets of cardboard which were afterward glued together, forming a single tag and holding the looped end of the string or wire in position. This construction requires that two sheets of cardboard be used and the union of these sheets by adhesive material is often imperfect where they pass over the string or wire. It is the purpose of my invention to obviate the disadvantages enumerated above by forming the body portion of a tag homogeneous with the loop of the string or wire inserted in the center thereof during the process of manufacturing the tag from pulp, papier-mâché, or other suitable material.

Referring to the accompanying drawings, Figure 1 represents in plan view my improved shipping tag provided, in the present instance, with a wire which is looped and inserted in the body of the tag.

Fig. 2 is a central sectional view of my improved tag on the broken line 2—2, Fig. 1, and

Fig. 3 represents an apparatus illustrating the method of manufacture of my improved shipping tag.

Similar reference characters refer to similar parts in the different figures.

The shipping tag A, represented in Figs. 1 and 2, is constructed as follows: Vertically movable within a fixed framework 1 are the followers 2 and 3, to which reciprocating movements are imparted by means of eccentrics 4 and 5 suitably connected with some driving mechanism, not shown, by which a synchronous rotative movement may be imparted to said eccentrics. The eccentrics 4 and 5 work in slots 6 and 7 by which an up and down movement is imparted to the followers 2 and 3 at each revolution of the eccentrics. The followers 2 and 3 are provided on their opposing sides with perforated diaphragms 8 and 9, said diaphragms being preferably made of a fine mesh gauze of woven wire. The diphragms are attached at their edges to the sides of the followers and are supported between their edges by means of transverse ribs 10 which prevent a deflection of the diaphragms as pressure is brought to bear upon them. Between the ribs 10 are open spaces 11 which communicate with each other by holes 12 through the ribs 10. Pipes 13 communicate with the open spaces 11 at one end of the followers and similar pipes 14 communicate with the open spaces 11 at the opposite end of the followers. Means are provided for forcing heated air through the pipes 13 into the spaces 11 and exhausting it therefrom through the pipes 14, causing a constant current of heated air to pass over the surfaces of the diaphragms 8 and 9.

When the diaphragms are separated at their farthest distance apart, the upper follower 2 is raised above the upper surface of the fixed framework 1, while the lower follower 3 still remains inclosed by the framework. A predetermined amount of pulp, papier-mâché, or other suitable material, from which the body of the tag is to be formed, is then placed upon the upper surface of the lower diaphragm 9. The amount of pulp thus supplied is sufficient to form

one half the desired thickness of the shipping tag. A looped string or wire 15 is then inserted through a slot 16 in the framework, with the loop 17, shown by broken lines in Fig. 1, resting upon the upper surface of the pulp or papier-mâché. An equal quantity of tag material is then poured into the framework 1, covering the loop 17. The eccentrics 4 and 5 are then rotated, bringing the diaphragms closer together and exerting pressure upon the material interposed between them, the moisture exuding therefrom through the perforations of the diaphragms 8 and 9 being evaporated by the current of heated air. In order to provide sufficient thickness to the body of the tag covering the loop 17, I shorten the transverse ribs 18, 18 which support the diaphragms 8 and 9 where they pass over the loop in the string in order to allow a slight deflection of the diaphragms, thereby increasing the thickness of the tag to cover the loop. As the attaching means, consisting of the string 15, is inserted near the edge of the tag in order to leave the body of the tag of uniform thickness and therefore suitable to be written upon, means must be provided to prevent the string from being pulled out, causing the tag to be disconnected from the bundle to which it was attached. I am aware that wires or pins have been proposed having an enlargement or head which was embedded in a plastic material or secured between two layers of cardboard, said head or enlargement being in the same plane as the cardboard. Such a method of attaching a string or wire to a shipping tag would be impractical and I do not claim such.

I secure sufficient resistance to the strain upon the string 15 by doubling the string 15 upon itself and forming a circular loop 17 of greater diameter than the distance between the strings where they leave the edge of the tag. A tensile strain upon the string 15 will tend to contract the sides of the circular loop 17 and compress the tag inclosed in the loop. By doubling the string upon itself, I provide two ends projecting from the edge of the tag which may be tied together in attaching the tag.

I do not confine myself to the specific mechanism shown for forming my improved shipping tag as I am aware that other mechanisms may be employed. The construction of a shipping tag having a homogeneous body in which the string is inserted during the formation of the tag from pulp or other suitable material is, so far as I am aware, broadly new.

I claim:

1. As an article of manufacture, a shipping tag composed of plastic material and having flexible attaching means doubled upon itself to form a loop of greater diameter than the space between the ends of the attaching means, with said loop embedded in the body of the tag and with its ends projecting from the end thereof.

2. As an article of manufacture, a shipping tag provided with flexible attaching means doubled upon itself and forming a circular loop of greater diameter than the space between the ends of the attaching means, with the ends of the attaching means projecting from the end of the tag, said attaching means being embedded in the body of the tag.

Dated this sixth day of June, 1914.

JOHN B. SHANDS.

Witnesses:
PENELOPE COMBERBACH,
NELLIE WHALEN.

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