

No. 873,046.

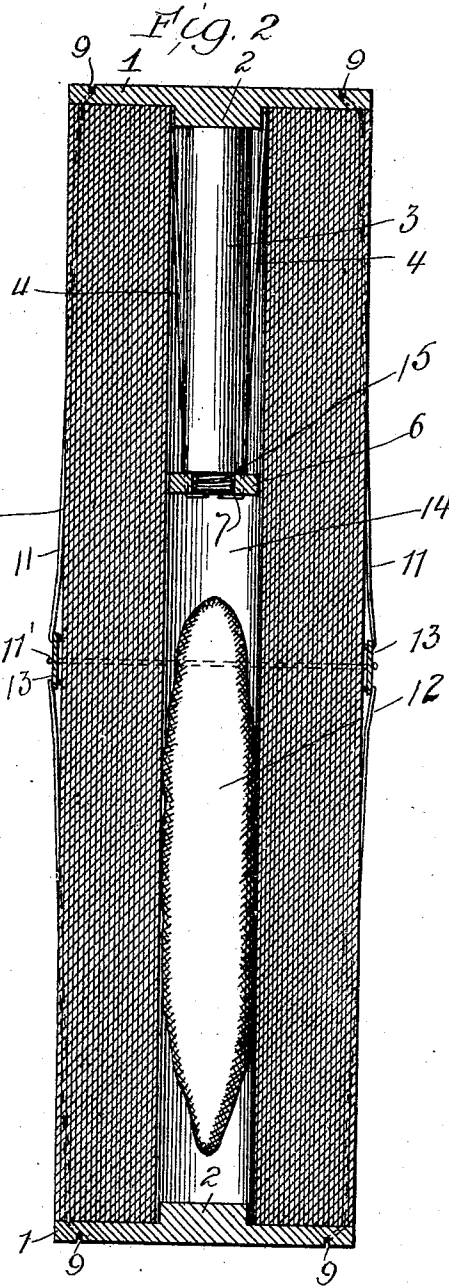
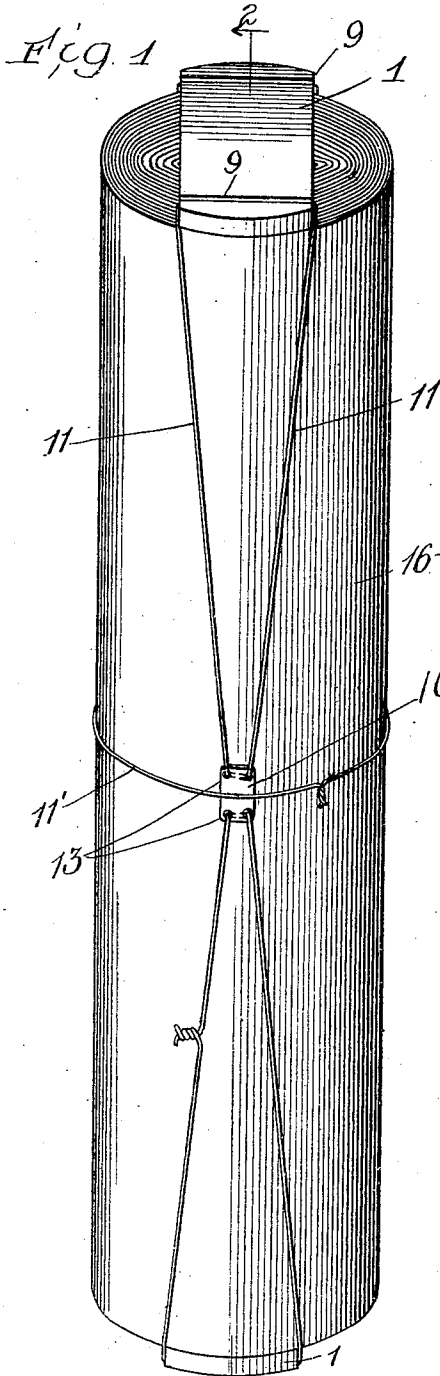
PATENTED DEC. 10, 1907.

F. S. HOWARD.

DEVICE FOR TYING ROLLS OF ROOFING MATERIALS.

APPLICATION FILED FEB. 26, 1906.

2 SHEETS—SHEET 1.



Witnesses
Ray White.
Harry R. L. White.

Inventor
Frank S. Howard
By John W. Burdette Atty

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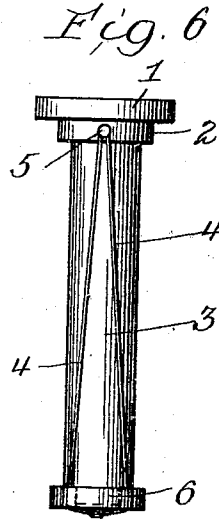
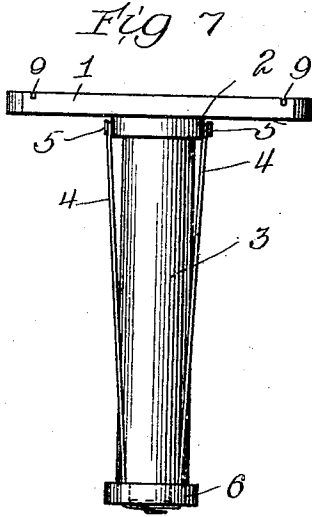


Fig. 3

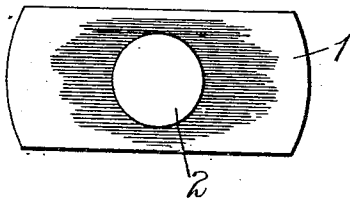


Fig 8

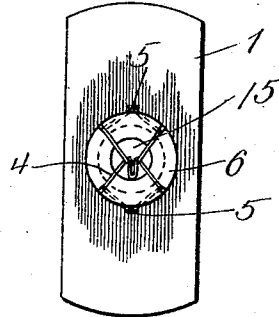


Fig. 4

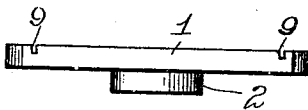


Fig. 5

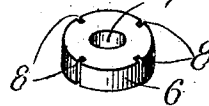
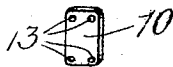


Fig. 9



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UNITED STATES PATENT OFFICE.

FRANK S. HOWARD, OF LOMBARD, ILLINOIS.

DEVICE FOR TYING ROLLS OF ROOFING MATERIALS.

No. 873,046.

Specification of Letters Patent.

Patented Dec. 10, 1907.

Application filed February 26, 1906. Serial No. 303,135.

To all whom it may concern:

Be it known that I, FRANK S. HOWARD, a citizen of the United States, residing at Lombard, in the county of Dupage, in the State of Illinois, have invented a new and useful Device for Tying Rolls of Roofing Material.

The objects of my invention are to protect both the exterior of the package and the contents from injury, to facilitate the handling of the same in warehouses and freight-houses, and to prevent the loss of the contents *in transitu*.

In tying rolls of roofing-paper and roofing-felt and preparing the same for shipment it has been customary to place inside the hollow core a can of liquid cement and a package containing nails, caps and washers to be used in attaching the material to the roof. Plugs have been used to stop the ends of the cores, and an additional plug has been placed in the core at or near the middle, to separate the contents and protect them from injury by reason of the crushing of the roll. The last mentioned plug has been retained in its place by the pressure of the roll. The roll being flexible the pressure varies and the plug is liable to be displaced and the contents thereby subjected to an extraordinary pressure and rendered liable to injury itself and to cause injury to the inner layers of the material with which it comes in contact. Hollow chambers, in the form of cylinders, have been used, attached to the blocks covering the ends of the roll, for the purpose of inclosing and protecting the inclosures above mentioned, but the size and form of the inclosures vary and the capacity of the receptacle cannot be adapted to the variations, and the contents, being free to move within the chamber, are liable to injury from the rough handling to which such goods are subjected *in transitu*.

My invention is designed to overcome these, among other, objections, by rigidly confining the inclosures to fixed positions within the core by attaching them firmly between the two plugs in such a manner that neither the inclosures nor the plugs can shift about, and so no danger can arise to the inclosures from external pressure on the roll.

In the drawings like numbers indicate like parts.

Figure I is a perspective view of a roll, tied with my device; Fig. II is a central sectional view of the same, showing the contents of the hollow core of the roll; Fig. III is a plan

view of the block and end-plug; Fig. IV is a side view of the same with the can-tie attached; Fig. V is a perspective view of the collar-plug; Fig. VI is a detail view of the can, tied between the collar-plug and end-plug; Fig. VII is a side view of Fig. VI; Fig. VIII is a plan view of Fig. VI; Fig. IX is a detail view of the plate, 10.

My device consists of a pair of blocks, 1, preferably of wood, and of such size and form as will adapt them to protect effectively the ends of the roll from injury, the form and relative size shown being preferred, a circular end-plug, 2, preferably of wood, fixed to the inner side of the block, and closely fitting the diameter of the hollow core, 14, of the roll, 16; a strand, or strands, preferably of wire, 4, for tying the can, 3, in place, attached to the end-plug, preferably in the manner shown, by turning the strand around a small, flat-headed nail, 5, and sinking the nail into the plug flush with the surface; a circular collar-plug, 6, preferably of wood, closely fitted to the diameter of the core, and preferably provided with a central aperture, 7, adapted to admit the cap, 15, of the can, as shown, and being provided with means for preventing the displacement of the strands of the can-tie, 4, consisting, preferably of notches, 8, in the outer edge of the collar-plug, as shown; a roll-tie consisting of a strand or strands, 11, preferably of wire, for tying the roll firmly between the said pair of blocks, and means for preventing the displacement of the strands of the roll-tie, preferably grooves, 9, in the outer surface of the block, as shown. Usually it is desired to ship only one can of liquid with a roll and the can-tie may, therefore, be dispensed with on one of the blocks and end-plugs. It may however be used to secure a parcel containing the nails, caps and washers in the same manner as that in which the can of cement is secured.

The application of my device is as follows: The roll of roofing paper, or felt, as the case may be, having a hollow core, 14, and covered with an outside wrapping of heavy paper, as is now customary, the end coverings now used being omitted, the can, 3, of liquid cement, is firmly fastened between the collar-plug, 6, and one of the end-plugs, 2, by the can-tie, 4, by passing its strands through the notches, 8, and twisting, or tying, the ends together in any suitable manner. Thus fastened the can is inserted in one end of the

core of the roll, the end being thus closed and protected against lateral pressure by the end plug, 2. Findings for attaching the roofing material, such as nails, caps or wire, are made into a package, 12, of suitable form and size, and placed in the open end of the core, which is then closed with another block and end-plug. The two blocks, the roll, 16, being thus between them, are then securely tied together by passing the strands of the roll-tie, 11, through the grooves, 9, in the blocks, and twisting, or tying, the ends together in any suitable manner, and drawing them taut by any suitable means. The roll-tie may be made taut by passing the strands, 11, through the holes, 13, in the plate, 10, as shown, and giving the plate a sufficient number of turns to twist the strands until the slack shall be taken up. The plate being flat, will be held against the side of the roll and untwisting prevented by the tension of the strands. Should greater security be desired the additional strand shown, 11', may be passed around the roll laterally.

I am aware that rolls have been tied between blocks conforming more or less approximately to the circumference of the roll and attached to its ends, and I make no claim to the broad principle of such devices. I am also aware that parcels have been carried loose within the core of such rolls, and that parcels have been inclosed in hollow receptacles inserted in such rolls for that especial purpose. I do not claim, broadly, either of these. My device is designed to avoid both of these methods, dispensing with an additional especial receptacle, and at the same

time rigidly confining and securing the inclosure within the roll.

I claim as new and desire to protect by Letters Patent:

1. In combination with a roll of flexible material having a hollow core, blocks adapted to be applied to the ends of said roll substantially in the manner and for the purpose shown and described, circular end-plugs firmly centrally attached thereto adapted to fit the core and having attached to their outer circumferences strands of wire, a circular collar-plug adapted to fit said core provided with notches in its outer circumference adapted to receive and retain said strands, by means whereof a can or parcel may be firmly secured between said plugs.

2. In combination with a roll of flexible material having a hollow core, blocks adapted to be applied and secured to the ends of said roll, circular end-plugs adapted to fit said core closely attached centrally to said blocks and provided with means for securing strands of wire, circular-collar-plugs adapted to fit said core closely provided with means for receiving and retaining said strands, whereby a can or parcel may be firmly fixed between said plugs, substantially in the manner and for the purpose shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK S. HOWARD.

Witnesses:

SAMUEL W. NORTON,
JOHN W. BURDETTE.