

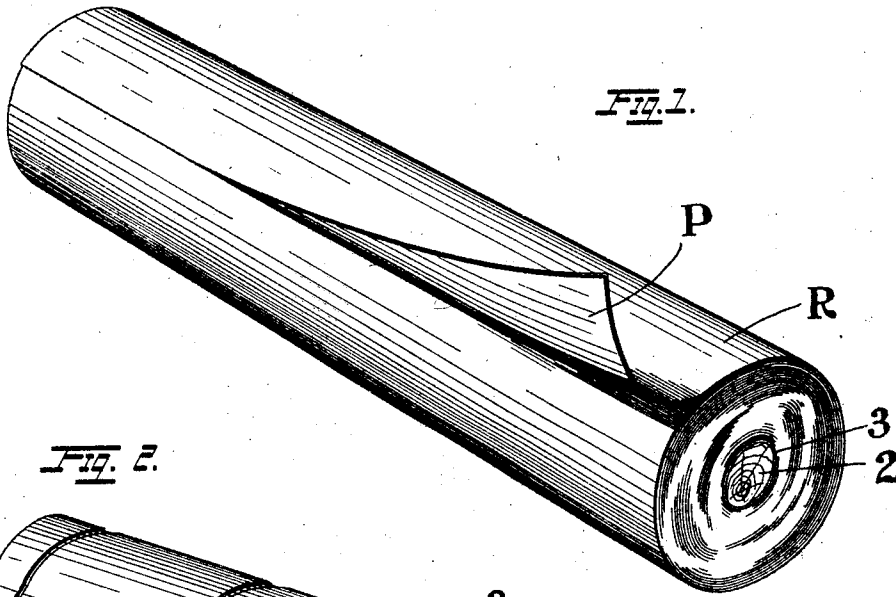
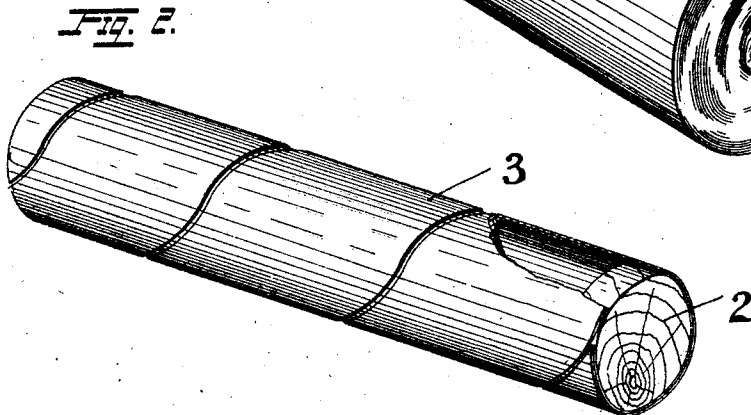
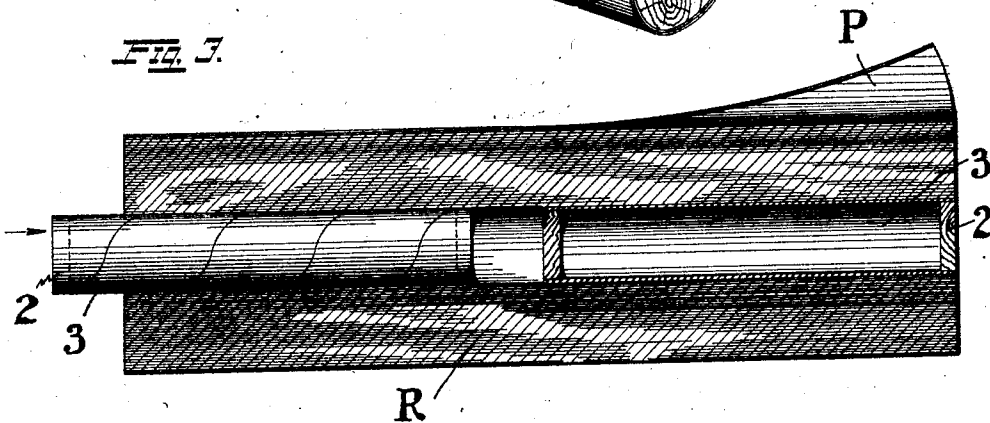
June 23, 1925.

1,543,052

A. W. BROWN

STAY FOR HOLLOW ROLLS OF FLEXIBLE PLIANT SHEET MATERIAL

Filed March 24, 1921



WITNESS

H. A. Sherburne

INVENTOR

ABNER W. BROWN.

BY

White Hart Evans
his ATTORNEYS

Patented June 23, 1925.

UNITED STATES PATENT OFFICE.

ABNER W. BROWN, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO THE PARAFFINE COMPANIES, INC., OF SAN FRANCISCO, CALIFORNIA, A CORPORATION OF DELAWARE.

STAY FOR HOLLOW ROLLS OF FLEXIBLE PLIANT SHEET MATERIAL.

Application filed March 24, 1921. Serial No. 455,313.

To all whom it may concern:

Be it known that I, ABNER W. BROWN, a citizen of the United States, and a resident of the city and county of San Francisco, State of California, have invented a certain new and useful Stay for Hollow Rolls of Flexible Pliant Sheet Material, of which the following is a specification.

This invention has reference to means for staying rolls of flexible sheet material against flattening.

It is one of the objects of the present invention to provide an extremely simple, inexpensive, effective and durable means for internally supporting or staying a roll of sheet material such, for instance, as roofing.

It is a further object of the invention to provide a stay that can be introduced into a roll of flexible sheeting with ease and without the expenditure of any considerable amount of time and without the requirement of special machinery. It is a further object to provide staying means that will support the roll against collapse not only at the ends, but at a plane or planes intermediate the ends.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be made manifest in the following description of the preferred form of the invention which is illustrated in the drawings accompanying and forming part of the specification. It is to be understood that it is not intended to limit the invention to the embodiment shown by the said drawings and description as variations may be adopted within the scope of the invention as set forth in the claims.

Fig. 1 is a perspective of a roll of roofing material with the invention applied.

Fig. 2 is a perspective of one of the unitary stays.

Fig. 3 is a longitudinal sectional view through a roll of roofing material showing the application of the stays.

Sheet material, for instance, paper, felt and other fiber stuff having been treated according to various processes as governed by the desired results, is rolled into a roll of convenient size preparatory to being stored or shipped. Usually the rolls are so formed as to have a hollow center or axial chamber, with the result that when the rolls are

subjected to pressure either while in storage or in shipment they become flattened vertically and bulged laterally, to the detriment of the material.

It is a purpose of the present invention to provide an extremely practicable means to be introduced into the chamber of the roll so as to support the roll against deflection and flattening under pressure, either of its own weight or applied.

The staying of a roll may be obtained by the present invention in numerous modifications in which there is employed a set of rigid circular elements arranged in parallelism and longitudinally spaced within the chamber of a roll, each of the elements being disposed perpendicularly to the axis of the roll and having a diameter approximating that of the chamber.

Preferably the staying means is in the form of a plurality of unitary devices; the embodiment of the invention here disclosed comprising a set of wooden discs 2 placed in parallelism on a common axis and rigidly connected by suitable means. Such a connecting means may comprise a tube of paper as indicated at 3 into the ends of which tube the wooden discs are snugly fitted and preferably secured in any desired manner, for instance adhesively.

A plurality of the staying devices thus formed are arranged within the chamber of a roll R of flexible sheet material such as roofing paper P. By inserting a plurality of staying cylinders, the staying discs 2 are disposed within the chamber intermediate the ends of the roll, as well as at the ends, so that the roll is supported against collapse. In the present arrangement, I have shown two staying cylinders in the roll, so that the roll is supported against collapse at the ends and at the center, but a different number of staying cylinders may be employed when it is desirable to stay the roll at a greater number of points. By securing the staying discs to the ends of the paper cylinders the discs are properly positioned and held within the roll to offer the desired support against flattening.

It will be seen from the above that when the transversely arranged and axially spaced staying discs 2 are introduced within the chamber of the roll, the discs form substantial transverse braces and support the

roll against flattening and bulging under pressure.

What is claimed is:

5 The combination with a normally collapsible hollow center roll of flexible material, of a plurality of separate tubes having spaced rigid discs disposed therein perpen-
10 dicularly to the axis of the tube, one of said discs being secured to the tubes at each end thereof, one of said tubes being inserted snugly into the hollow center of the roll at

each end thereof and abutting each other at substantially the center of the roll, whereby to position several of the rigid discs at substantially the center of the roll and one of 15 the rigid discs at each end of the roll to prevent collapse of the roll at its center and ends, substantially as described.

In testimony whereof, I have hereunto set my hand.

ABNER W. BROWN.