No. 710,213. Patented Sept. 30, 1902.

W. H. ROGERS.

BOX OR CRATE.

(Application filed Mar. 25, 1902.)

(No Model.)

FIG. 1

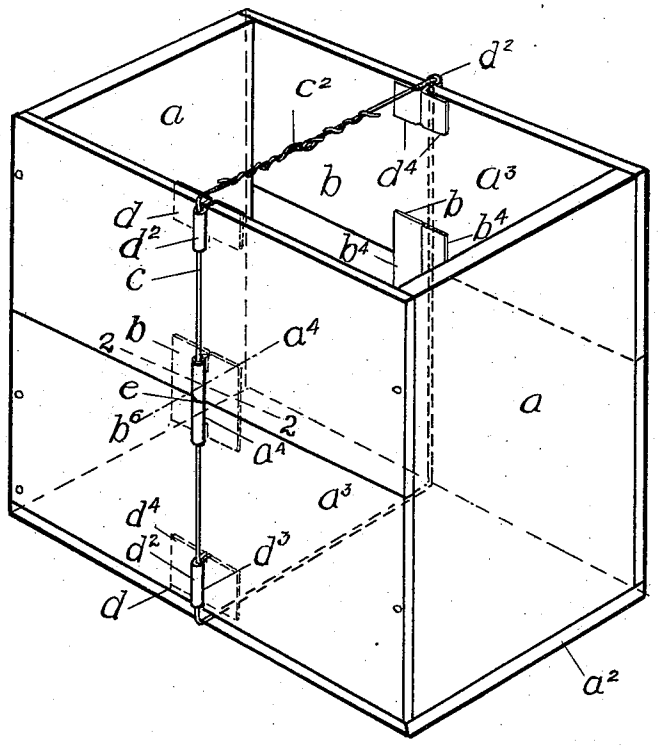


FIG. 2

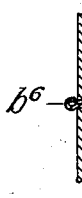


FIG. 3

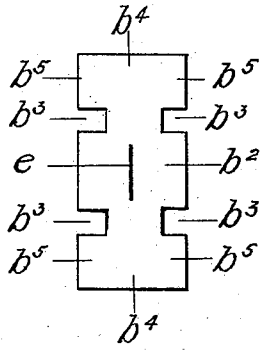
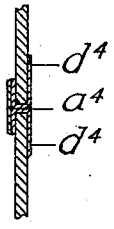


FIG. 4



WITNESSES

R. P. Tobin.

F. A. Stewart

INVENTOR

William H. Rogers

BY

Edgar Tate & Co

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM H. ROGERS, OF NEW YORK, N. Y.

BOX OR CRATE.

SPECIFICATION forming part of Letters Patent No. 710,213, dated September 30, 1902.

Application filed March 25, 1902. Serial No. 99,845. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. ROGERS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Boxes or Crates, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to the manufacture of boxes or crates for the package or storage of various articles; and the object thereof is to provide improved means for securing the sides and top and bottom of a box or crate in position and also for strengthening the sides and top and bottom of said box or crate when the latter are composed of light or thin material.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same reference characters in each of the views, and in which—

Figure 1 is a perspective view of a box or crate made according to my invention; Fig. 2, a partial section on the line 2 2 of Fig. 1; Fig. 3, a plan view of a locking or strengthening device which I employ; and Fig. 4, a view similar to Fig. 2, showing a modification.

In the drawings forming part of this specification I have shown in Fig. 1 a box or crate composed of end pieces a, a bottom a^2, and sides a^3, the top of the box being omitted in order to more fully show the construction, and in this box or crate the sides a^3 are composed of separate strips or parts, and in order to strengthen the sides of said box I connect the separate strips or boards of which they are composed by sheet-metal fastening and strengthening devices b, which are made from a sheet-metal blank b^2. (Shown in Fig. 3.)

The blank b^2 is oblong in form and provided at its opposite edges with notches or recesses b^3, whereby end portions b^4 are formed, having side wings or projections b^5, and in practice the adjacent strips or boards of which the sides of the box or crate are composed are slotted transversely at a^4, the wings or projections b^5 of the end portions b^4 of the blank b^2 are folded over and said end portions passed through the slots at a^4, the side wings or projections b^5 are spread outwardly, as are also the end portions b^4, and by this means the adjacent edges of the separate strips or boards are securely bound together, and this will, as will be understood, strengthen the sides of the box or crate.

My improvement also contemplates the use of a wire c, which is passed around the box or crate and the ends of which are connected, as shown at c^2 or in any desired manner, and this wire is passed through the loop b^6, and this wire also serves to hold the cover and the sides of the box or crate in position when said cover and sides are made of thin material. I also employ supplemental fastening devices d, which are also composed of sheet-metal blanks bent centrally to form loops d^2, and the ends of which are passed through slots formed in the edges of the sides or top or bottom of the box, as at d^3, said ends being spread outwardly at the inner side, as shown at d^4, and the wire c is passed through the loops d^2, and by means of this construction the sides and bottom and top of the box or crate are bound together at the edges thereof, the wire serving to prevent the said edges of the top, bottom, and sides of the box or crate from being forced inwardly.

As a modification of this construction the blank b^2 may be slitted or slotted longitudinally of the center thereof, as shown at e, and the loop b^6 or separate parts thereof formed by the slit or slot e may be bent in opposite directions, as shown in Fig. 4, so as to securely lock the adjacent edges of the separate parts of the sides of the box or crate together; but with this construction the wire c would not be used in connection with the fastening and strengthening devices d.

By means of this improvement I am enabled to make a box or crate the sides of which are composed of thin and weak material and of separate parts and at the same time give strength and security thereto without depending upon the nailing or otherwise securing of the sides, bottom, and top of the box to the ends thereof, it being understood that the nailing or otherwise securing of the sides, top, and bottom of the box may be em-

ployed, if desired, and to some extent is necessary in order to prevent the said parts from slipping or becoming displaced.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A box or crate composed of thin boards the edges of which are slitted transversely, fastening devices for securing the adjacent edges of said boards together consisting of sheets of metal folded centrally to form a tubular member, and the ends of which are passed through said slits and spread outwardly on the inner side of said boards whereby the adjacent edges of said boards are connected and strengthened, and a wire or other flexible device passed around said box or crate and through said tubes and the ends of which are connected, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 24th day of March, 1902.

WILLIAM H. ROGERS.

Witnesses:

F. A. STEWART,

F. F. TELLER.