

No. 664,475.

Patented Dec. 25, 1900.

H. G. GRAVES.  
AX HANDLE CRATE.

(Application filed Mar. 3, 1900.)

(No Model.)

Fig. 1.

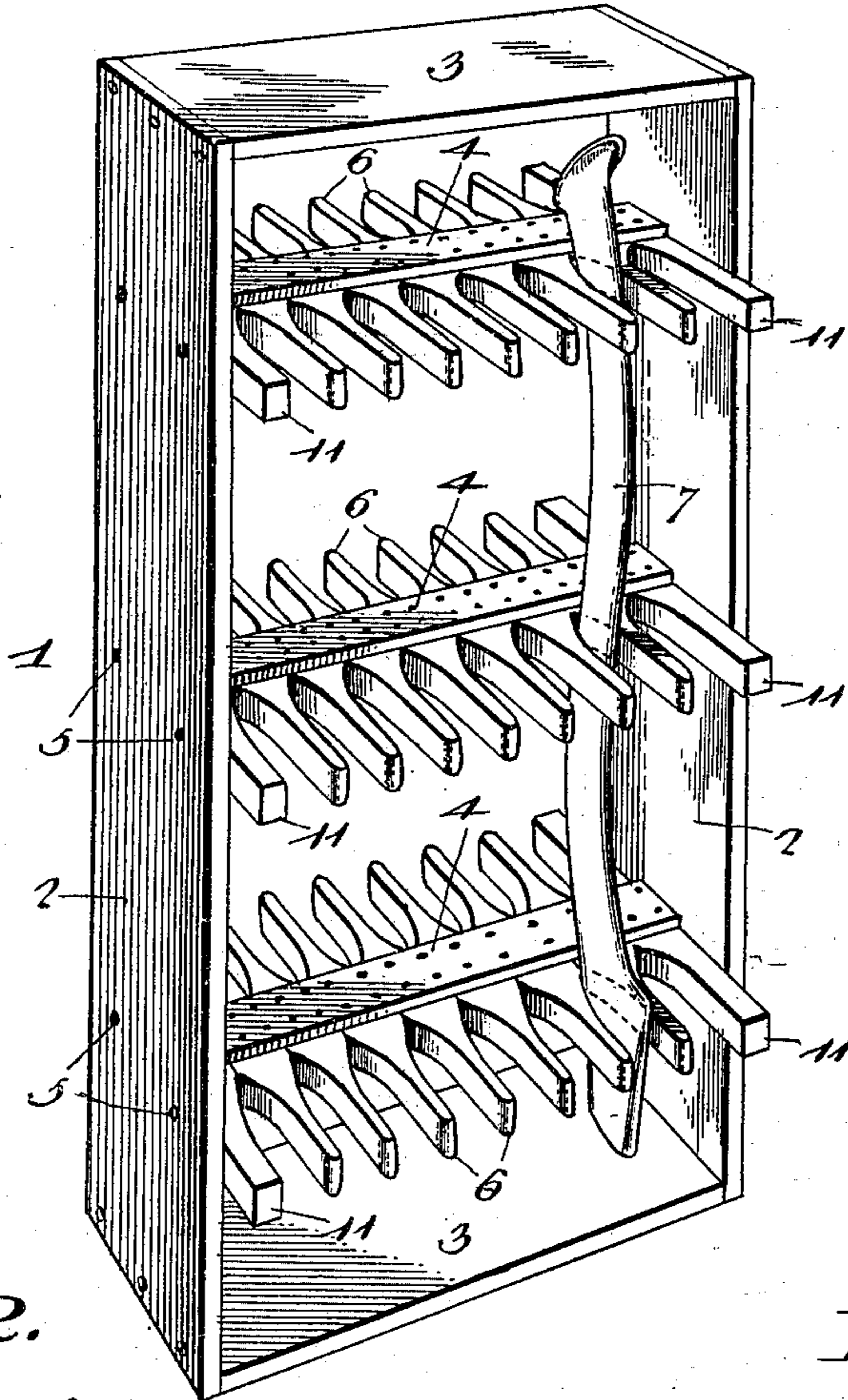


Fig. 2.

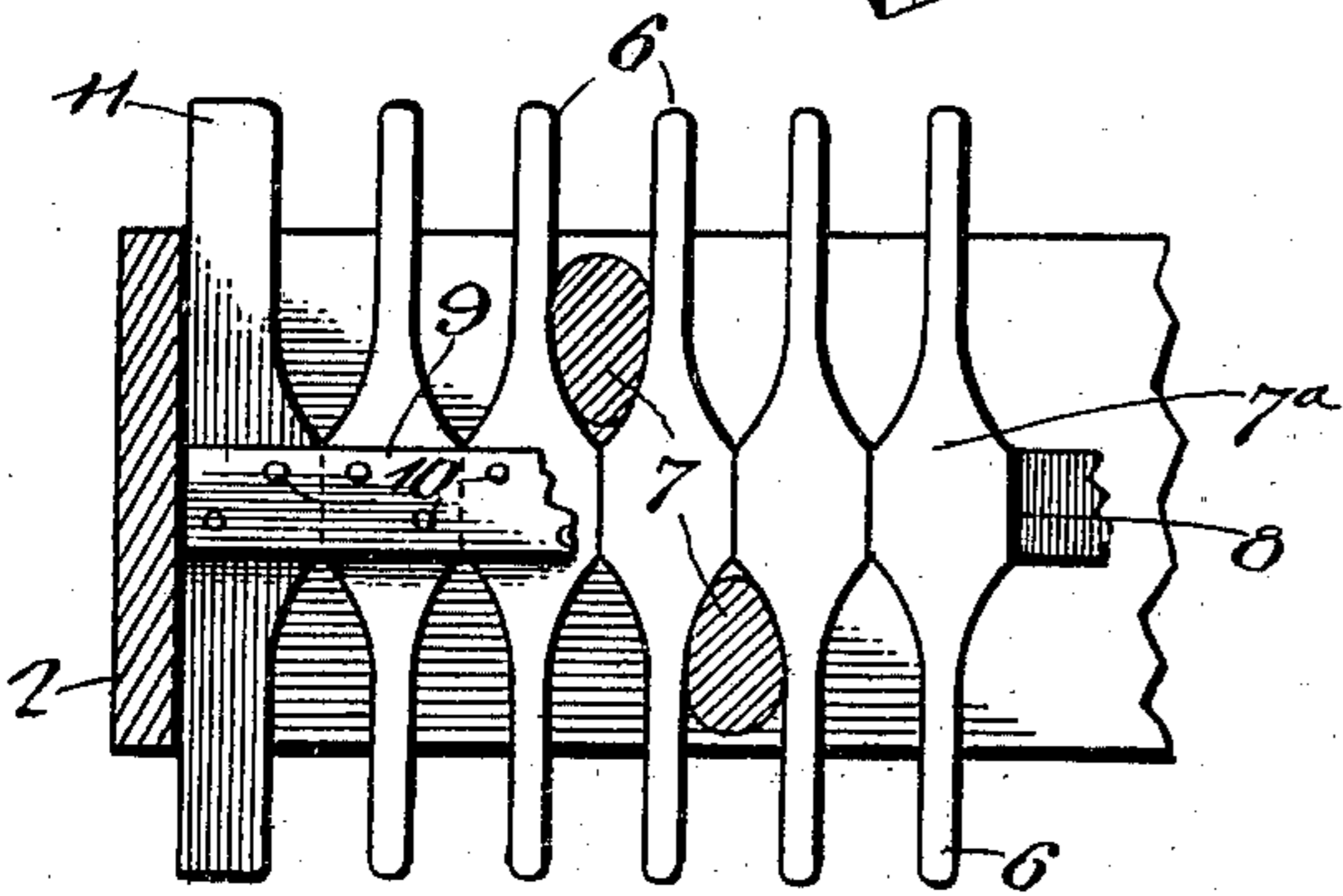
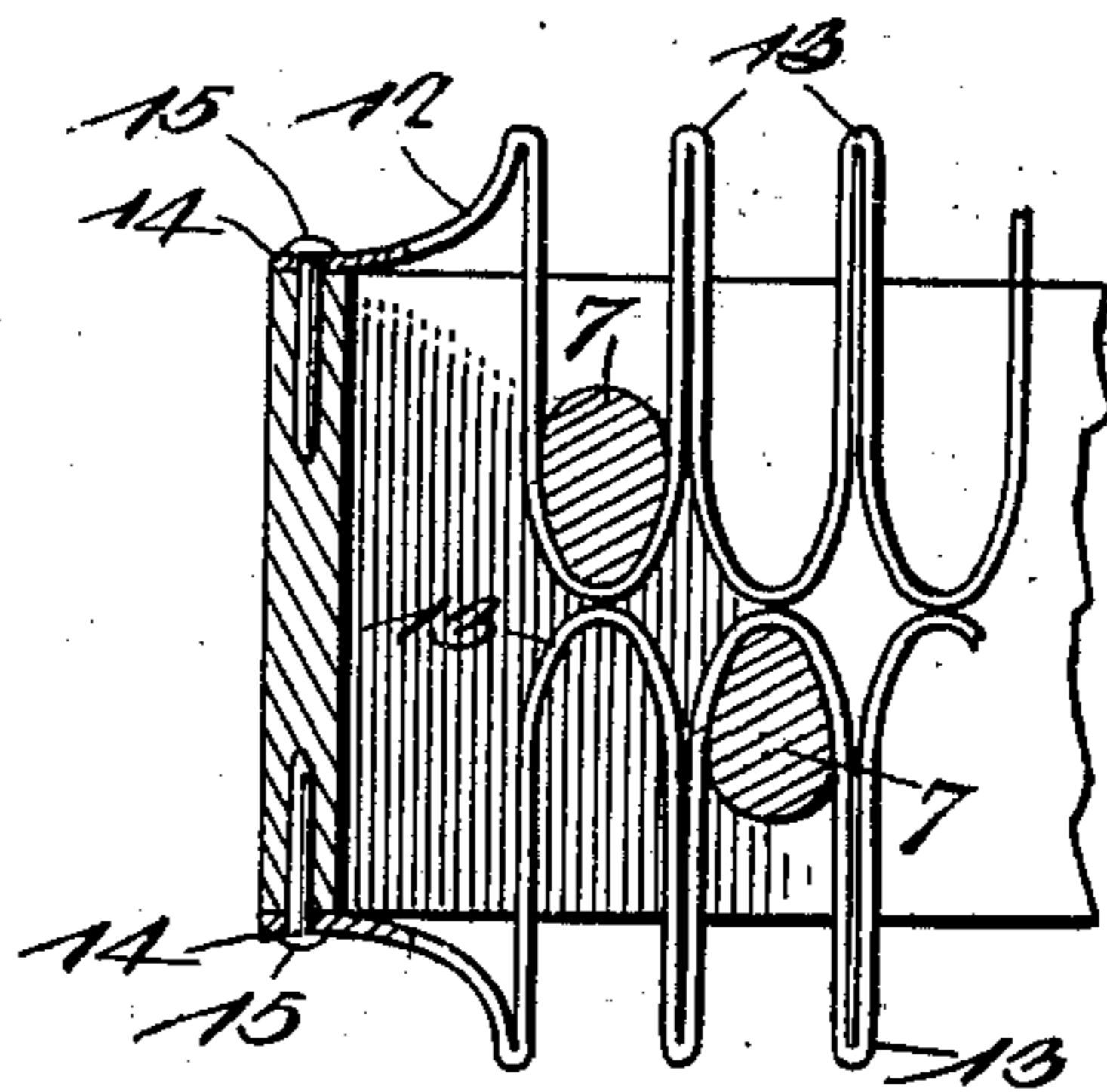


Fig. 3.



Witnesses  
J. Kaufmanverwell.

By His Attorneys, H. G. Graves,

Inventor.

C. B. Lepard.

C. A. Snow & Co.

# UNITED STATES PATENT OFFICE.

HERBERT G. GRAVES, OF MAYVILLE, MICHIGAN.

## AX-HANDLE CRATE.

SPECIFICATION forming part of Letters Patent No. 664,475, dated December 25, 1900.

Application filed March 3, 1900. Serial No. 7,228. (No model.)

*To all whom it may concern:*

Be it known that I, HERBERT G. GRAVES, a citizen of the United States, residing at Mayville, in the county of Tuscola and State of Michigan, have invented a new and useful Ax-Handle Crate, of which the following is a specification.

This invention relates to crates, and has for its object to provide an improved device of this character which is designed to contain ax-helves and the like, so as to conveniently display the same and to permit of the convenient removal and replacing of individual handles without interfering with the other handles. It is furthermore designed to provide means for supporting the individual handles at a plurality of points, so as to separate the handles and hold them firmly against warping or crooking.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a crate constructed in accordance with the present invention. Fig. 2 is a detail plan section thereof. Fig. 3 is a similar view showing a modified handle-support.

Corresponding parts in the several figures of the drawings are designated by like characters of reference.

Referring to the accompanying drawings, 1 designates an ordinary ax-handle crate, and comprises the opposite longitudinal side pieces 2 and the end pieces 3, which connect the side pieces and complete the frame of the crate.

In carrying out the present invention it is designed to provide a plurality of handle-supports 4, which are duplicates in construction and are located adjacent to the opposite ends of the crate and at an intermediate point, respectively. Each of these supports fits snugly between the opposite sides of the frame of the crate and is connected thereto by means of suitable fastenings 5, which are driven through

said sides and longitudinally into the respective ends of the supports. Projecting laterally at opposite sides of each support is a plurality of spaced tongues or projections 6, which are aligned longitudinally of the support and form a series of pockets or recesses for the reception of the respective handles. It will be understood that the corresponding pockets of the respective supports are aligned longitudinally of the crate, so that the handle 7 may be received within said corresponding pockets, as illustrated in Fig. 1 of the drawings, whereby the handles are individually supported and are also separated one from the other. By this means each handle is forced to maintain a straight position, and is thereby prevented from warping or crooking, as is a common occurrence when the handles are placed loosely in the crate. When the crate is stood on end, as shown in Fig. 1, the butt-end of the handle frictionally engages the upper support and prevents displacement of the handle. It will thus be seen that handles may be placed at opposite sides of the supports, and the latter may have as many pockets as the size of the crate and the handles will warrant.

The form of support shown in Fig. 2 is made of wood and comprises a plurality of body-sections 7<sup>a</sup>, which are provided at opposite ends with the oppositely-projecting reduced tongues 6, the opposite sides of the body being flat and straight, as indicated at 8. A plurality of these body-sections have their adjacent flat sides placed in contact and firmly connected together by means of the opposite strips of wood 9, which embrace the body-sections and are secured thereto by means of suitable fastening devices 10, whereby the support is practically an integral structure. This is a convenient manner of forming the supports; but they may be formed from a single block of wood, the tongues 6 being formed by slots made in the opposite edges of the block. The outer edges of the tongues flare outwardly adjacent to the body, so that the opposite edges of adjacent tongues converge, whereby the pockets are narrower at their inner ends than at the outer ends thereof in order that the ax-handles may be wedged between the walls of the pockets to afford an additional securing means therefor. The outer

side of each end section 11 is flat for its entire length, so as to fit snugly against the inner face of the adjacent side of the crate to which the support is connected in the manner hereinbefore described.

A modified form of support has been shown in Fig. 3, in which each support is formed by a pair of metallic strips 12, which are folded longitudinally into convolute form to provide a plurality of outwardly-directed tongues 13, which are spaced to form pockets similar to the pockets in the first-described support. The free ends 14 of each strip form attaching-ears, which are applied to the adjacent outer edges of the respective side pieces of the crate and are secured thereto by means of suitable fastening devices 15. Each convolute strip is located in the same plane, and the inner edges of both strips are arranged adjacent, so as to form practically a single support. In this form of the device the walls of the pockets are elastically yielding, so as to have a firm frictional engagement with the handles to positively hold them within the pockets.

It will be understood that the present crate is open or uncovered at its front and rear sides, so as to effectively display the handles, and as the latter are individually supported any of the handles may be taken from the crate and also replaced without disturbing the other handles, while at the same time all of the handles are rigidly held in a straight position to prevent them from becoming warped or crooked. In transportation a plurality of crates are connected together, so that the open sides thereof are closed to prevent loss of the handles, and the latter are effectively held against looseness and movement by the supports.

When the supports are formed of wood, the material thereof should be softer than the hard-wood ax-helves, so that when the latter are forced into the seats or pockets the walls of the latter will yield, so as to firmly grip the helves and hold them in place. Moreover, the tongues themselves are more or less elastically yielding to have the same gripping effect.

The ax-helve-receiving seats are arranged in longitudinal groups, each of which comprises end and intermediate seats, which are spaced at intervals less than one-half of the length of an ax-helve, the intermediate seat being preferably midway between the opposite end seats. It is preferable to have three seats in each group, and the seats are of a size to firmly embrace the ax-helve, so as to hold the latter and prevent it from crooking.

What I claim is—

1. A shipping and display crate for preventing crooking of ax-helves, having ax-helve-receiving seats arranged in groups, each of the latter being adapted for the reception of a single ax-helve, and consisting of longitudinally-alined terminal and intermediate seats

spaced at intervals less than one-half of the length of an ax-helve, and formed to embrace an ax-helve at terminal and intermediate points, whereby the helve is held straight and is prevented from crooking.

2. A shipping and display crate for preventing crooking of ax-helves, comprising a frame having opposite side and end pieces forming a skeleton rectangular frame, which is open at its front and rear sides, and transverse end and intermediate substantially parallel ax-helve supports connected to the opposite sides of the frame, the end supports being spaced from the ends of the frame to accommodate the respective ends of the ax-helves, and the supports having corresponding ax-helve-receiving seats, which are arranged in longitudinally-alined groups and are open at their outer sides for the reception and removal of the ax-helves, the supports being spaced at intervals less than the length of an ax-helve, and the seats being formed to embrace a helve at terminal and intermediate points, whereby the helve is held straight and is prevented from crooking.

3. A shipping and display crate for preventing crooking of ax-helves, comprising end and side pieces forming a substantially rectangular skeleton frame, which is open at its front and rear, and transverse end and intermediate ax-helve supports, which are secured to the opposite side pieces and are spaced at intervals less than one-half of the length of an ax-helve, the end supports being spaced from the adjacent ends of the frame to accommodate the ends of the helves, and each support being formed by a plurality of transverse sections, which have laterally-enlarged intermediate portions, from which project the oppositely-disposed reduced longitudinal fingers, the opposite sides of the adjacent enlarged portions being in engagement, and opposite longitudinal strips embracing the intermediate enlarged portions of the sections and secured thereto forming a rigid support, the adjacent fingers being spaced apart and forming ax-helve-receiving seats, which are open at their outer ends for the reception and removal of the helves, the seats being arranged in groups of longitudinally-alined end and intermediate seats, which are formed to embrace a helve at terminal and intermediate points, whereby the helve is held straight and is prevented from crooking, the outer sides of the terminal-support sections being straight and flat and secured flat against the respective inner faces of the side pieces of the frame.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HERBERT G. GRAVES.

Witnesses:

JOSEPH EVELAND,  
A. J. EVELAND.