

UNITED STATES PATENT OFFICE.

RODOLPHUS MILLER, OF LANSING, TOMPKINS COUNTY, NEW YORK.

FORM FOR MAKING CRATES.

SPECIFICATION forming part of Letters Patent No. 185,053, dated September 18, 1883.

Application filed May 4, 1883. (No model.)

To all whom it may concern:

Be it known that I, RODOLPHUS MILLER, of Lansing, (Post Office, North Lansing,) Tompkins county, New York, have made an Improvement in the Construction of Crates for Potatoes and like Articles, of which the following is a specification, reference being made to the accompanying drawings.

My object is to make a measuring and packing crate with the least labor. For this purpose, having cut the lumber of which the crates are made, and constructed an improved block or center piece the size and shape and capacity of the crates, I nail them together about the block to which my invention mainly relates, as will be apparent as I describe it.

Figure 1 is a side elevation of my block standing on its lower end or bottom. Fig. 2 is a partially-transverse section near the lower metallic clamp of Fig. 1, but the ends are not, like the sides, cut in section, the section being confined to the sides. Fig. 3 is a perpendicular reversed or bottom-side-upward perspective view of a crate finished and removed from the block, the size for a bushel of potatoes, as fitted for packing in cars, cellars, and other places, and the detached parts seen in the figures are identified by their letters.

In the figures, *a* is the block or central piece about which the crates are made, having the corners *b* beveled and fitted with iron plates *g*, which are made the width, or nearly so, of the beveled corners, and are fast on these corners. They serve as clinching-plates to the nails used in fastening the slats *d* to the sides and ends of the crate. In Fig. 1 four clamps, *c*, are seen about the corners *b*, and in Fig. 2 they are shown tightened by wedges *e*, which fit into metallic sockets *f*, and act both as wedges and as studs to tighten and hold the clamps. These wedge-studs go through apertures in the ends of the clamps. Their use is to hold wooden posts or cleats *m* of the crates, which posts are made triangular in shape, as seen in the corners *b*, Fig. 2. The construction of the block or center piece is seen in Fig. 2 to be by pieces of hard-wood plank two inches thick, or other suitable thickness, which are bolted on the posts *j*, thus leaving the center hollow. These planks are plain on their sides and edges, except that grooves *h* are cut

in the end planks, and are to receive the bottom cleats, *i*. (Seen in Fig. 3, by dotted lines, to be inside of the inverted crate.) Metallic sockets *f* are bolted fast in the side planks, as shown, in which are the wedges *e*. The lumber used consists of the crate-posts *m*, slats *d*, (two or three widths,) bottom cleats, *i*, and the packing-cleats *n*, so attached to the crates that they fit each into the crate below when several crates are set one on the other in cars, cellars, or other places; and for this purpose the cleats *n*, as seen in Fig. 3, are set back a little way from the ends of the crate, and their ends cut to fit the triangular posts of the crate, thus making a fitting of the bottom of one crate to the top of the one below it, the cleats preventing displacement, as well as making the fitting of one crate to another. The crates being made exactly alike, any one or all fit any or all others in this manner.

To construct a crate I turn the block *a* on one end and place loosely on it two clamps—as, for example, *c c'*—then slide into the corners *b b'* two triangular crate-posts, and put in and drive the wedges *e e'* of these clamps, which renders the posts fast. I then nail on the end slats. Then I turn the block the other end up and repeat the same thing on the other end of the block, having placed a bottom cleat, *i*, in each of the grooves *h h'* and nailed them fast to each end. I now turn the bottom up and nail on the bottom slats, (seen upward in Fig. 3,) then complete the crate by nailing on the sides. When the crate is done, it readily leaves the blocks as soon as the wedges release the clamps. Spaces *s* are between the side and the end slats, which are fixed by the wedges which fasten the clamps, and thus, there being in the drawings but four slats shown on the sides and ends, these clamps adjust the position of all the slats. The ends *a'' a'*, Fig. 2, I repeat, are full height, and not cut in section, in order that the recesses *h h'* may be seen on the outside edges of the end planks. The same thing is also seen at *h* in the detached figures. The other detached figures need no explanation, and all other parts, as well as those briefly explained, are believed to be fully apparent. The intention is to use these crates as convenient and useful articles in the field gathering potatoes, and in

vehicles in their transportation, as holders in cellars and other like places, in the cars or other public conveyances to market, and for their exhibition on sale, and as packages to be sold, potatoes and crate both, for which purposes they will be found convenient and novel in handling this crop.

I am aware that crates or slatted boxes have long been in use for receptacles and as vessels for transportation. I am also fully aware that blocks and center pieces for use in the construction of various articles have long been in use. These I do not claim; but

What I do claim as my invention is—

1. A block about which the crates are constructed, provided with beveled corners, on which the triangular corner-posts of the crate are held by metallic clamps, while the side and end slats of the crates are nailed to the posts, said clamps being tightened on the said posts

by wedge-shaped studs which are driven into sockets in the sides of the block, as shown and described.

2. The block with beveled corner clamps, wedge-shaped studs, and sockets, when further combined with recesses in the ends of the base of the block, which are made for and contain the bottom cleats or supports, while the bottom slats are nailed to the side slats and cleats, as set forth.

3. In the block, the metallic facing of the beveled corners, sockets, and cleat-seats, in combination with the clamps, wedge-studs, sockets, triangular posts, bottom cleats, and slats, whereby exactness of construction and clinching of the nails used is had, as set forth.

RODOLPHUS MILLER.

Witnesses:

S. J. PARKER,
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