UNITED STATES PATENT OFFICE.

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FOLDING CRATE.

SPECIFICATION forming part of Letters Patent No. 515,196, dated February 20, 1894.

Application filed August 12, 1893. Serial No. 492,992. (No model.)

To all whom it may concern:

Be it known that I, HERBERT H. CUMMER, a citizen of the United States, and a resident of Cadillac, in the county of Wexford and State of Michigan, have invented certain new and useful Improvements in Folding Crates; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a perspective view of the crate. Fig. 2 is a detail view of a slat extended. Fig. 3 is a detail view of same folded. Fig. 4 is a top view of the crate folded. Fig. 5 is a view of the bottom piece.

This invention relates to certain new and useful improvements in folding crates, the object being to provide articles of this character, simple in its construction, which may be readily folded into compact form, and which will be convenient, strong, light and durable.

With these objects in view the invention consists in the novel construction and combination of parts, all as hereinafter described and pointed out in the appended claims.

The crate, as shown in the accompanying drawings, has its sides and ends composed of parallel slats A, joined at the angles by means of vertical wires or rods B which pass loosely through vertical holes therein, and also serve as pivots on which the slats may turn in folding and unfolding. The end portions of the end slats are held between the end portions of the side slats, the end portions of the side slats being similarly held between the end slats, so that each series serves to space the others the proper distance from each other. The two bottom lateral slats rest upon transverse pieces C, below the lower end slats and parallel therewith, and to which the lower ends of the wires or rods B are secured, and which form the support for the crate. The two upper lateral slats are held by means of the transverse cylindrical handle pieces D above the upper end slats, and parallel therewith, and to which are secured the upper end portions of the rods or wires B. Said pieces D form the support for the next succeeding crate in stacking or loading in tiers, the bottom pieces C having grooves F in their lower faces which receive the cylindrical handle, 55 pieces D, and prevent one crate from sliding around upon another.

G designates the bottom of the crate. In the drawings I have shown such bottom as consisting of three parallel slats G, secured together by a transverse batten or cleat H near each end, but if desired the bottoms may be composed of a single piece, or of any suitable number of pieces. In setting up the crate the sides and ends are first unfolded and brought into their proper positions, and the bottom is then inserted, its end portions beyond the cleats or battens H, resting upon the bottom pieces C, in which position it is secured against upward movement by means of a vertical, transverse cleat I pivoted thereto, which is turned so that its projecting end portions are brought to bear upon the lower edges of the lower lateral slats, as shown.

In folding, the bottom is first removed, when the sides and ends will readily assume the flattened compact form shown in Fig. 3, the end slats being partially received between the lateral slats. In this form a large number of crates may be packed in a small space. The side and end slats may be flat strips of wood with either rounded or squared edges, or said slats may be of cylindrical form. Suitable covers may be provided for the crates, if desired.

The construction, as will appear from the foregoing, is such as to insure a light, and at the same time, a strong and durable crate, inasmuch as the corner wires or rods securely connect the parts together, while the bottom, when in place, securely holds or braces the parts against any collapse. Furthermore, the open character of the parts, renders the crate especially adapted as a receptacle for fruits and vegetables, although it may be used to contain various commodities or articles.

Having thus described my invention, what I believe to be new, and desire to secure by Letters Patent, is—

1. An improved folding crate having its sides and ends built up of parallel slats and held at the angles by vertical wires or rods which also serve as pivots for the said slats in folding and unfolding, a cylindrical handle
bar at each end above the upper end and side bars, and a transverse bottom bar at each end below the lower end and side bars, said bottom bars having grooves in their lower faces to receive the handle bars of another crate, substantially as specified.

2. An improved folding crate having its side and end portions built up of parallel slats joined at the angles by vertical pivot wires or rods, the transverse handle bars at each end above the upper end and side bars the transverse bottom pieces C below the lower lateral slats, said bottom pieces C having grooves in their lower faces to receive the handle bars of another crate and a removable bottom having a rigid cleat near each end portion, and a pivoted cleat at its central portion, the end portions of said bottom beyond said cleats being designed to rest upon said pieces C, and the pivoted cleat to turn so that its end portions are brought to bear upon the lower edges of the lower lateral slats, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

HERBERT H. CUMMER.

Witnesses:
K. DUNHAM,
J. A. WADE.