

No. 709,542.

Patented Sept. 23, 1902.

C. W. HELLER & E. A. JONES.

FOLDING CRATE.

(Application filed May 13, 1902.)

(No Model.)

Fig. 1.

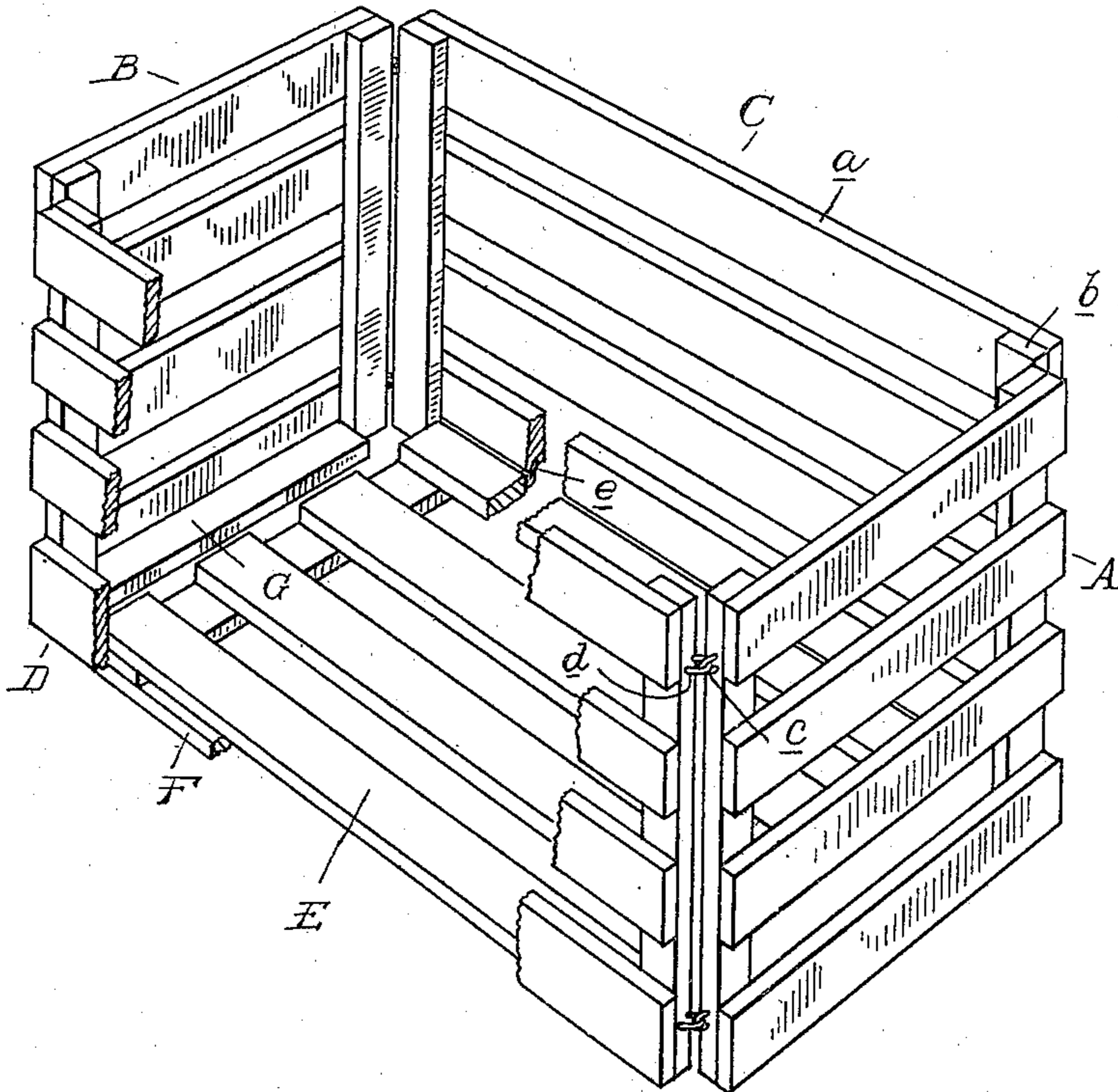
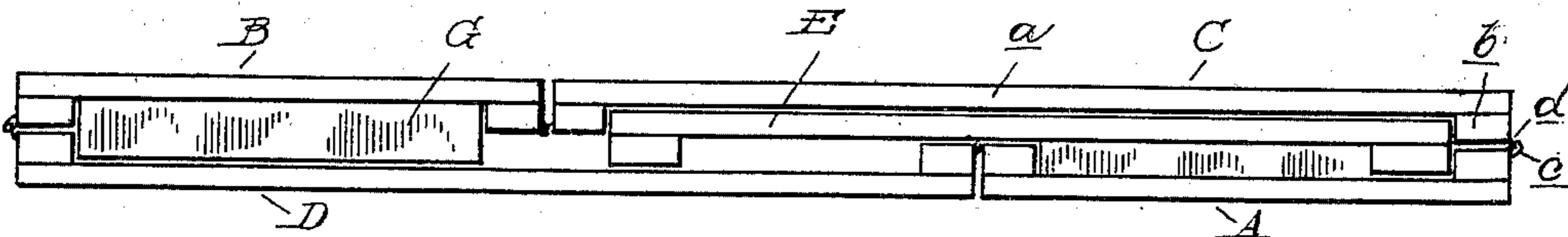


Fig. 2.



Inventors  
Charles W. Heller  
Everly A. Jones

By *W. C. Spurgeon* Attys.

Witnesses  
*W. C. Spurgeon*  
*H. C. Smith*

# UNITED STATES PATENT OFFICE.

CHARLES W. HELLER AND EVERLY A. JONES, OF CASS CITY, MICHIGAN.

## FOLDING CRATE.

SPECIFICATION forming part of Letters Patent No. 709,542, dated September 23, 1902.

Application filed May 13, 1902. Serial No. 107,089. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES W. HELLER and EVERLY A. JONES, citizens of the United States, residing at Cass City, in the county of Tuscola and State of Michigan, have invented certain new and useful Improvements in Folding Crates, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of the present invention is to produce a collapsible or knockdown crate of simple and inexpensive construction capable of being readily and compactly folded within a small compass when not in use or for return transportation and having no removable parts liable to be misplaced or lost.

Our invention therefore consists in the novel and simple construction of the crate and in the peculiar arrangement and combination of its various parts, as will be hereinafter described and illustrated.

In the drawings, Figure 1 is a sectional perspective view of our crate as in readiness for use, and Fig. 2 is a top plan view of the crate in its folded position.

In construction the crate comprises end sections A and B and side sections C and D, one of the sides carrying the folding bottom section E, hereinafter described. Each of the sections, including the bottom section, is formed of a series of parallelly-arranged spaced slats, such as *a*, each series being connected at its ends by a transverse cleat, as *b*. The cleats upon the side and end sections of the crate are arranged, as shown, upon the inner face or sides of the sections and are adapted to receive the interlocking staples *c* and *d*, which constitute the crate-hinges. These pairs of hinges of the type described are located at the upper and lower portions of adjoining cleats and serve to connect the sections forming the ends and sides of the crate, so as to produce when in its unfolded position a substantially rectangular and oblong inclosure, as plainly illustrated in Fig. 1.

The bottom section E of the crate is hinged, by means of interlocking staples *e*, to the lower edge of one of the side sections, as C, and is of a length to permit of its being folded into parallelism and contact with the said side section intermediate of its cleats. Upon

the opposite side D and upon the lower edge thereof is secured a supporting-cleat F, upon which the free edge of the bottom section is adapted to rest.

From the construction of the crate as set forth it will be observed that the latter may be folded, as shown in Fig. 2, into a flat oblong package, and as the bottom section is constructed to fold between the cleats of the side to which said section is connected the thickness of the folded crate is reduced to a minimum.

In constructing the bottom section to fit between the cleats on the side, as set forth, it will be obvious that a space will be left between each end of said bottom section and the adjoining sides of the crate. We have provided means for closing or bridging this space, consisting of cleats G, attached one to the lower edge of each end section intermediate of its cleats, as shown in Fig. 1. As will be observed, the hinges connecting the bottom section to its side, as previously described, are arranged upon the upper portion of said bottom section. Thus when the bottom is folded upwardly and the crate collapsed the cleat G that would come adjacent to such bottom section passes underneath the lower edge of the latter, thus permitting the side and end sections of the crate to be folded compactly in the manner indicated in Fig. 2.

From the description of our invention it will be noticed that the parts of the crate are all connected and cannot, therefore, be lost or misplaced. Furthermore, the construction and arrangement of the parts are such that the crate when collapsed is compact and occupies a minimum space, so that it can be readily and easily packed or stored.

What we claim as our invention is—

A folding crate, comprising end and side sections hinged one to another at their ends to form when unfolded an oblong rectangular inclosure, each section being composed of a series of horizontally-extending spaced slats connected at their ends by vertical cleats arranged upon the inner faces of the sections, a bottom section, comprising similarly-arranged slats and cleats, hinged to the lower edge of one of the sides, said bottom fitting between the cleats on said side and folding

into parallelism and contact therewith, a supporting-strip upon the lower edge of the opposite side fitted between the vertical cleats thereon, and a bridging-strip fitted between  
5 the cleats on each end section and projecting inwardly from the lower edge thereof, as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES W. HELLER.  
EVERLY A. JONES.

Witnesses:

J. D. BROOKER,  
ELLA BADER.