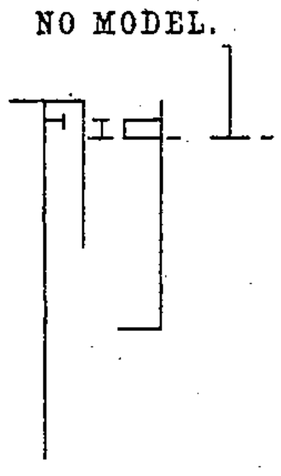
No. 738,109. PATENTED SEPT. 1, 1903.

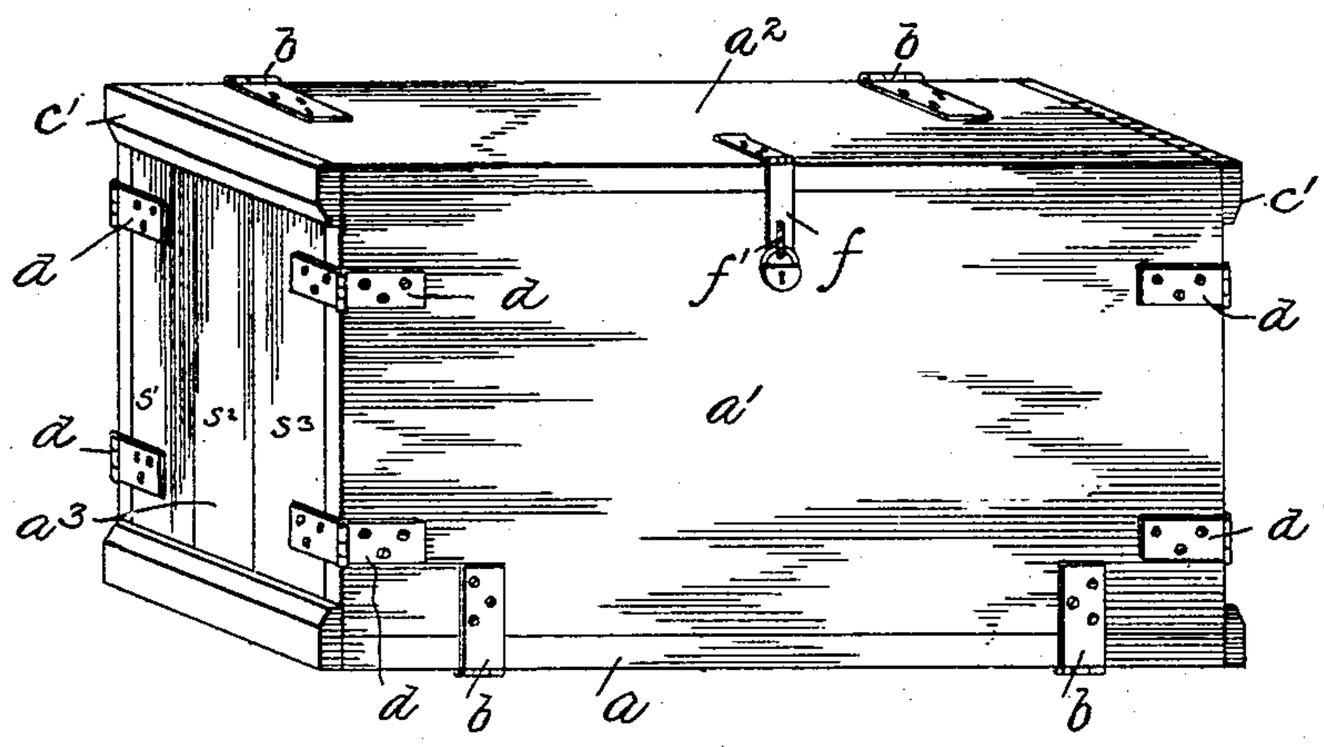
# J. S. HILYARD.

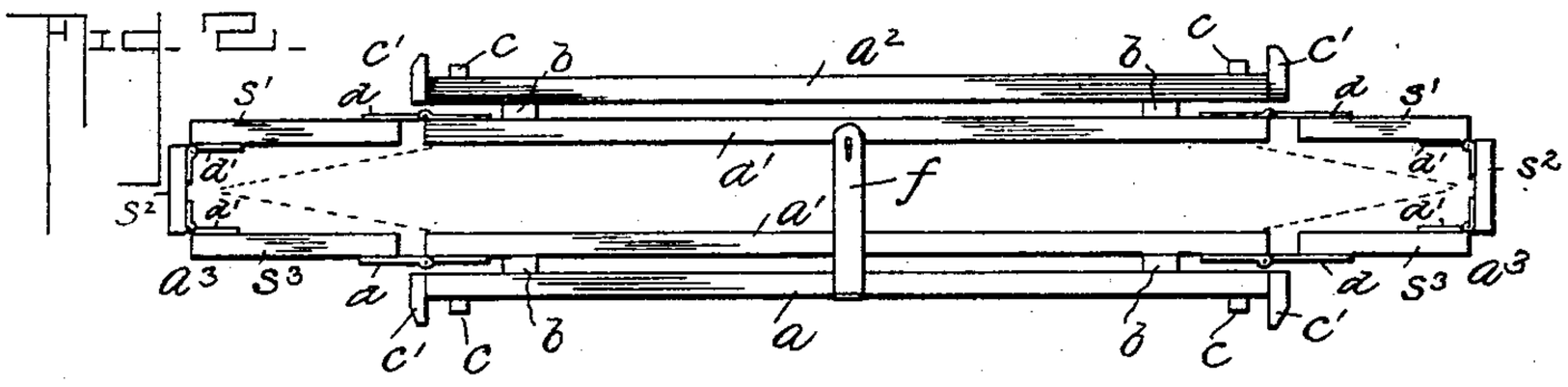
# FOLDING CRATE.

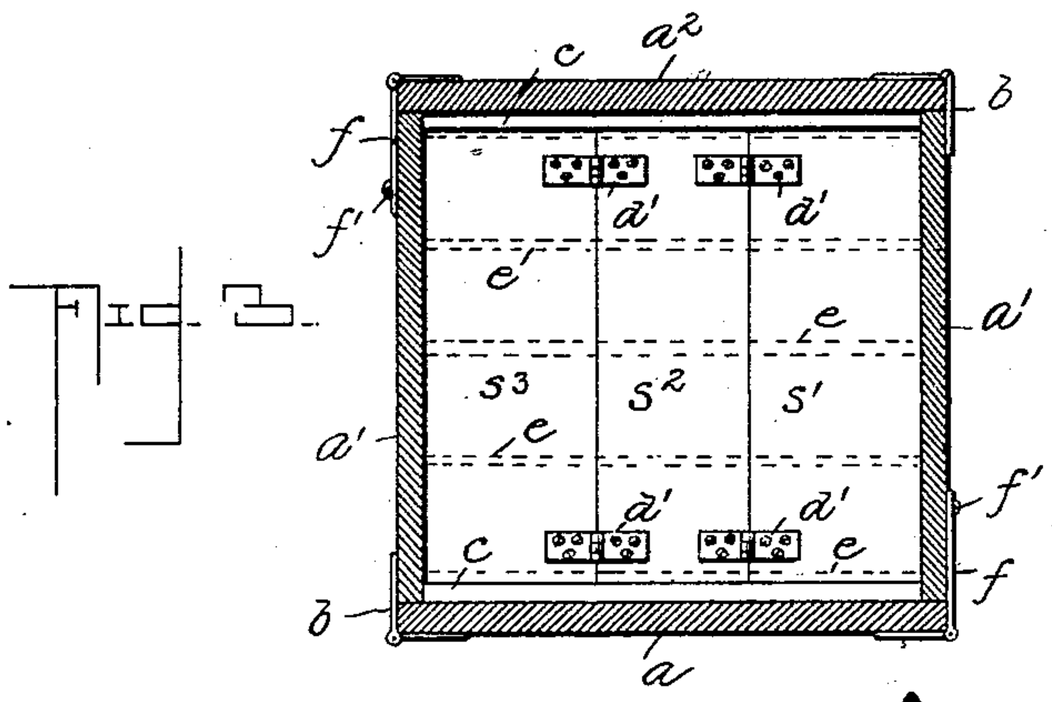
APPLICATION FILED JAN. 20, 1903.

NO MODEL.






Witnesses:—

R. J. Beall.

A. W. Beall.

James S. Hilyard.
Inventor,

by John B. Thomas & Co.,
Attorneys.

No. 738,109. Patented September 1, 1903.

# UNITED STATES PATENT OFFICE.

JAMES STUART HILYARD, OF COLUMBUS, OHIO.

## FOLDING CRATE.

SPECIFICATION forming part of Letters Patent No. 738,109, dated September 1, 1903.

Application filed January 20, 1903. Serial No. 139,855. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES STUART HILYARD, a citizen of the United States, and a resident of Columbus, in the county of Franklin and State of Ohio, have invented a Folding Crate, of which the following is a specification.

My invention is an improvement in shipping-crates, and relates more especially to that class which are adapted to be folded when empty so as to occupy a minimum amount of space for convenience and economy in reshipment to the producer or for storage.

The primary object of my invention is to provide a folding or knockdown crate which is more especially adapted for shipping eggs and in which the collapsible cell-cases are inclosed within the folded crate and all the parts so connected as to lie closely together when folded.

A further object of my invention is to provide a folding crate which when arranged for use will present a strong and durable structure, will form an excellent packing-box, especially for eggs, and will facilitate the removal of the contents from the crate.

Other objects and advantages of my invention will be obvious from the following description, and what I claim as new, and desire to secure by Letters Patent, is more specifically set forth in the claim.

In the drawings, Figure 1 is a perspective view of a folding crate constructed in accordance with my invention and arranged for use. Fig. 2 is an edge elevation with the parts folded for reshipment or storage. Fig. 3 is a transverse sectional view.

Similar letters of reference indicate similar parts in the several views of the drawings.

$a$ designates the bottom of the box or crate; $a'$ $a'$, the sides; $a^2$ the top, and $a^3$ the ends, the latter each consisting of three pieces hinged together and to the sides. The top $a^2$ is hinged to the upper edge of one of the side pieces and the bottom $a$ is hinged to the lower edge of the opposite side piece, the connections being made by strap-hinges $b$, which are attached to the outer face of the parts, as shown, so that said top and bottom may be folded against the outer side of the side pieces, respectively. Said top and bottom are provided at their ends with battens $c$ and $c'$, between which the pieces that form the ends of the crate are held when the parts are arranged for use. The battens $c'$ also overlap the edges of the sides $a'$.

The ends $a^3$ of the crate are each made up of three pieces, $s'$, $s^2$, and $s^3$, the pieces $s'$ and $s^3$ being connected by hinges $d$ to the outer sides of the sides of the crate, while the center piece $s^2$ is hinged to the inner side of the companion pieces, as indicated by $d'$. By forming the ends of the crate of three pieces hinged together and to the sides of the crate they are permitted to fold or swing outward so as to accommodate the increased length of the collapsible cell-cases, as indicated in dotted lines, Fig. 2.

In employing the crate for shipping eggs it is provided with collapsible cell-cases, as is usual, which are separated by the horizontal partitions $e$, the upper and lower partitions bearing at their ends against the inner battens $c$, so that they will give or yield centrally.

The top and bottom of the crate are each provided at their outer or free ends with a hasp $f$, and said hasps are adapted to engage staples $f'$ on the sides of the crate and are preferably locked in such engagement by a padlock.

The parts are arranged for use as shown in Figs. 1 and 3, with the sides $a'$ $a'$ disposed between the top and bottom at the edges thereof and bearing against the ends of the battens $c$, while the sectional ends are also disposed between the top and bottom, with their ends lying between the battens $c$ and $c'$, and when so arranged the parts are locked together by fastening the hasp of the bottom $a$, the top being free to swing open to gain access to the box or crate. As the parts $a$ and $a^2$ are alike and similarly connected to the sides, either one may become the top of the crate. This is especially desirable in case the crate is to be used for shipping eggs, as the eggs may be removed from one side of the central partition, usually thicker than the others and stationary, and the crate then turned over for removing the eggs from the other side of said central partition.

In folding the crate the top and bottom are unlocked and swung back against the side pieces and said side pieces then brought together, folding the collapsible cell-cases be-

tween them. The size of the crate is thus considerably reduced and will occupy comparatively little space. The parts when folded are held by causing the long hasps *f* to engage headed nails or staples at the edges of the opposite side pieces, as indicated in Fig. 2 of the drawings.

Having thus described my invention, I claim—

In a folding crate, the combination, of the top and bottom having the battens *c* and *c'* at their ends, the sides hinged to the top and bottom, respectively and at opposite sides of the crate, the ends each made up of three pieces hinged together and to the sides so as to swing outward, and long hasps hinged to the free ends of the top and bottom, said hasps being adapted to lock the parts when arranged as a crate and when folded, the said parts when folded being extended at the sides to accommodate collapsible cell-cases.

In testimony whereof I affix my signature to this specification in the presence of two subscribing witnesses.

JAMES STUART HILYARD.

Witnesses:

JOHN O. BOSSERMAN,

J. TRUNMER.