

No. 612,680.

E. S. SHELLHOUSE.  
CRATE.

Patented Oct. 18, 1898.

(Application filed Jan. 15, 1898.)

(No Model.)

Fig 1

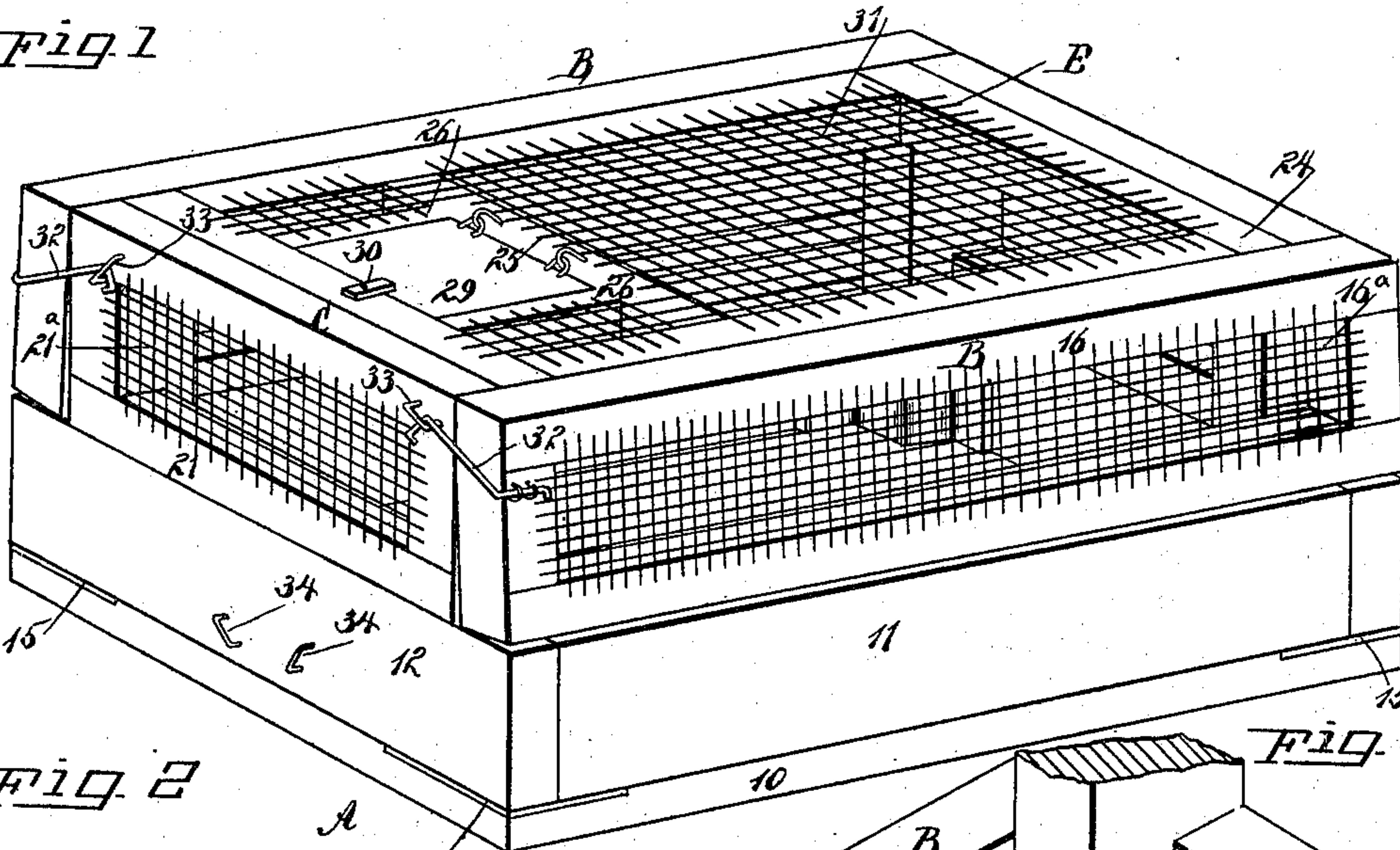


Fig 2

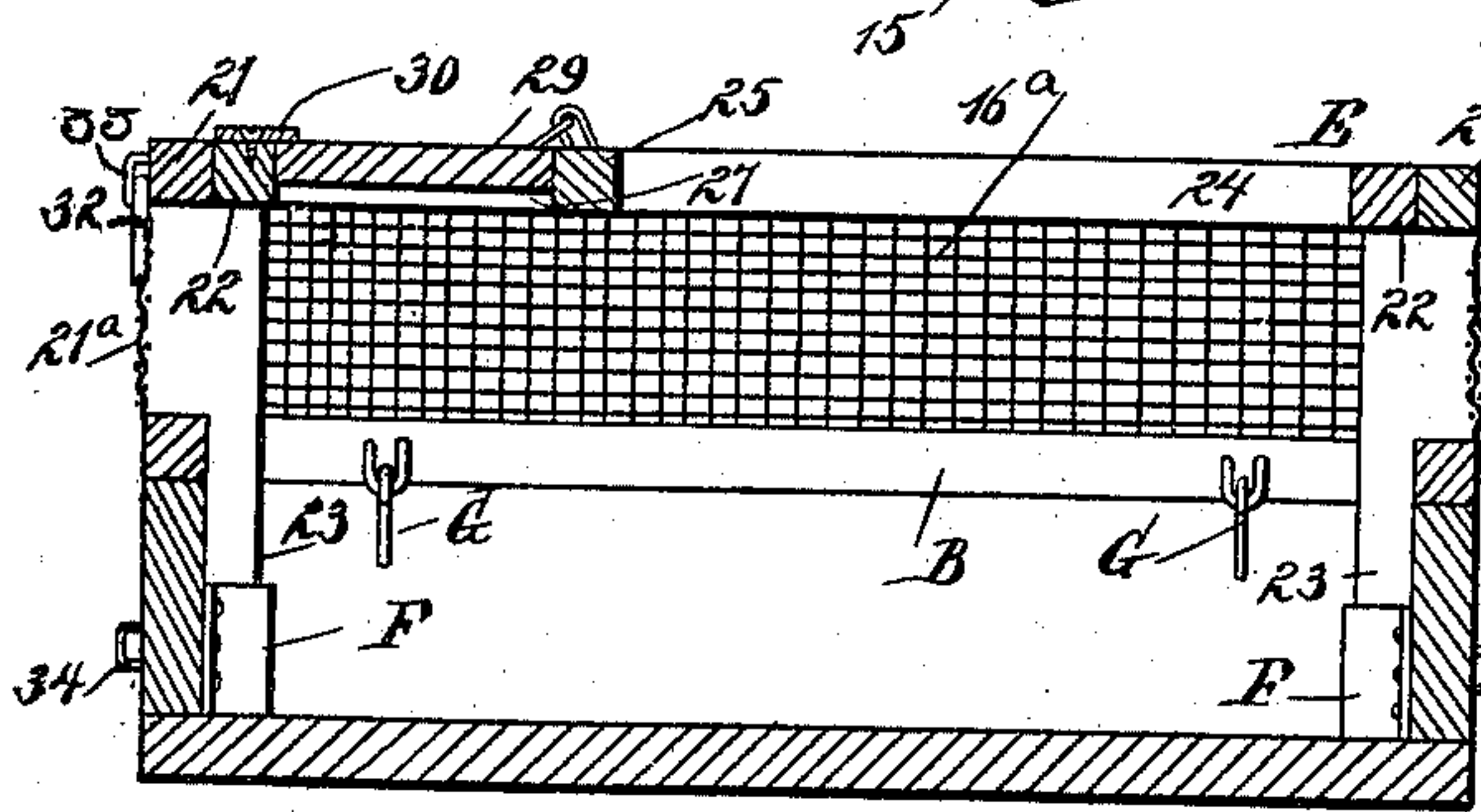


Fig 4

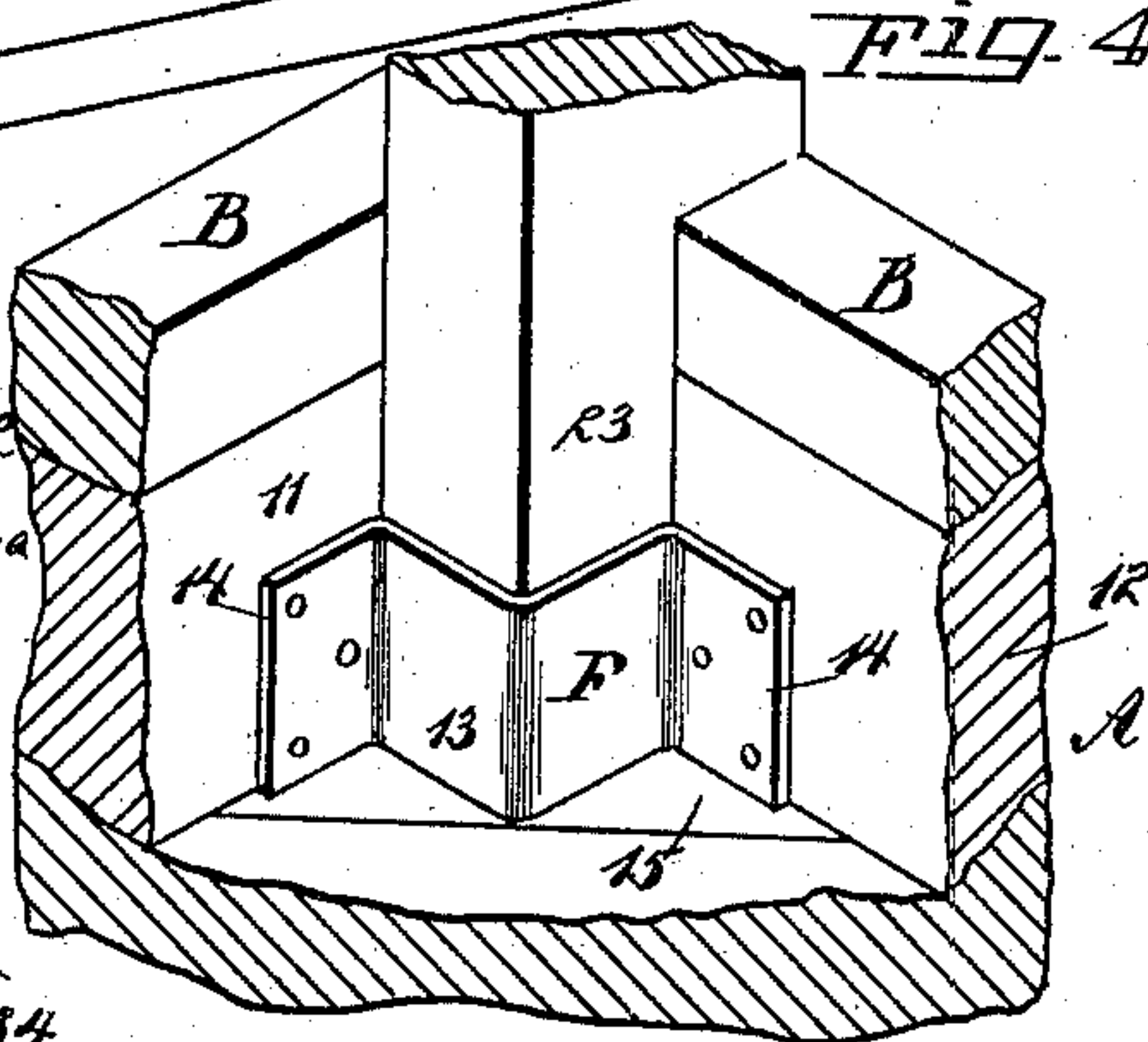


Fig 3

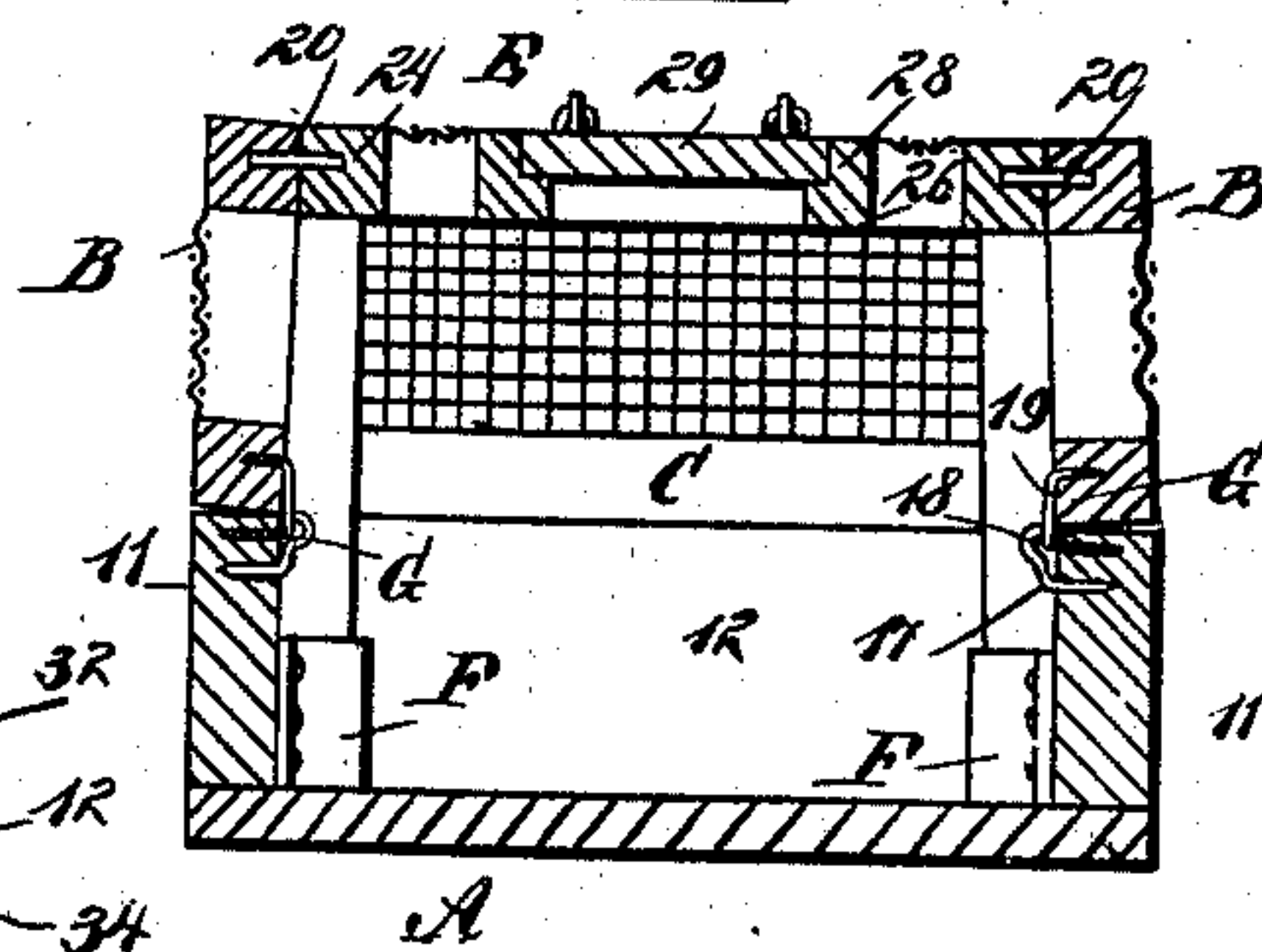
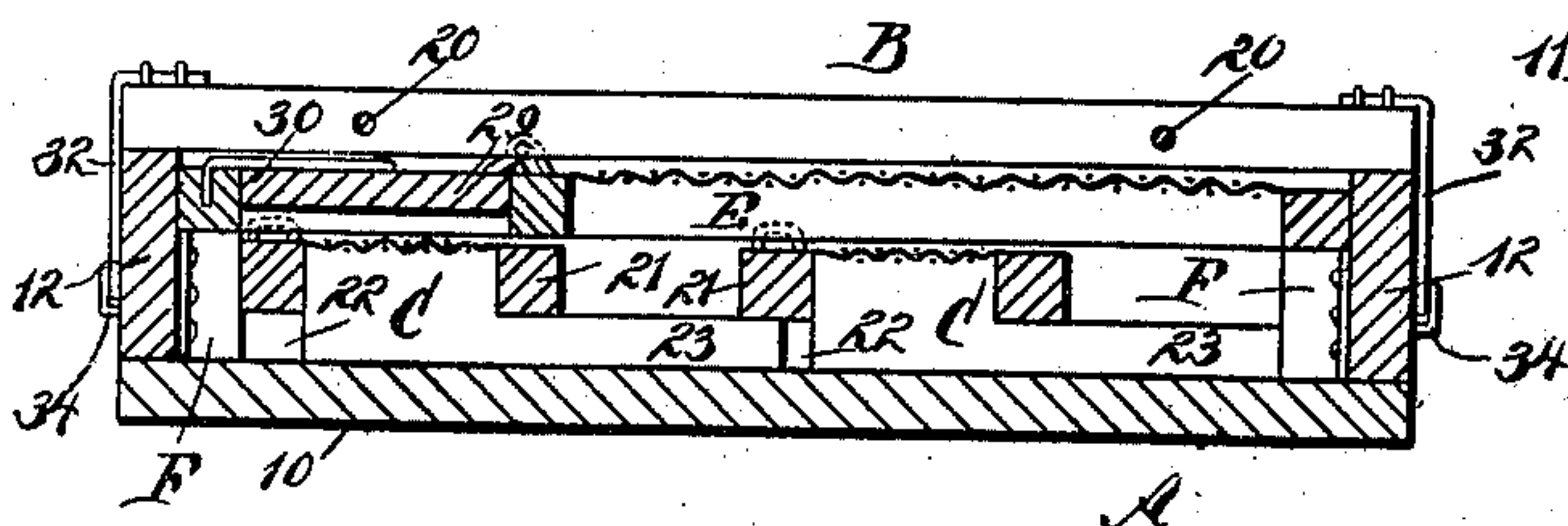


Fig 5



WITNESSES:

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# UNITED STATES PATENT OFFICE.

EDWARD S. SHELLHOUSE, OF CAREY, OHIO, ASSIGNOR OF ONE-HALF TO  
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## CRATE.

SPECIFICATION forming part of Letters Patent No. 612,680, dated October 18, 1898.

Application filed January 15, 1898. Serial No. 666,815. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD S. SHELLHOUSE, of Carey, in the county of Wyandot and State of Ohio, have invented a new and  
5 useful Improvement in Crates, of which the following is a full, clear, and exact description.

My invention relates to an improvement in crates, and especially to an improvement in  
10 folding crates adapted for the transmission of poultry and small animals.

The object of the invention is to construct a crate of this character which will be exceedingly light in weight and in which no  
15 loose pins or other fastening devices capable of dropping out will be employed.

A further object of the invention is to so construct the crate that it may be folded in a most compact form when to be returned  
20 empty, and whereby, further, the folding crate may be expeditiously and conveniently set up for use by any person of ordinary intelligence.

The invention consists in the novel construction and combination of these several parts,  
25 as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification,  
30 in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the crate. Fig. 2 is a longitudinal vertical section through the crate, drawn on a smaller scale. Fig. 3 is  
35 a transverse section through the crate. Fig. 4 is a detail perspective view of one corner of a crate viewed from the interior, the view being on a large scale; and Fig. 5 is a longitudinal vertical section through the crate when  
40 folded.

The parts comprising the base A of the crate are securely fastened together, and the said parts consist of a bottom 10, side pieces 11,  
45 and end pieces 12. The folding or adjustable section of the crate is erected upon the base-section A and forms the upper portion of the crate. This folding or upper portion comprises side pieces B, end pieces C, and a cover-section E. At each corner of the base and  
50 upon the interior an angle-iron F is secured,

which iron comprises an angular body 13 and wings which extend from the body and are secured to the inner faces of the fixed sides 11 of the base, as shown in Fig. 5. The angular body of the iron F is so shaped relative to  
55 the corner that the two parts together will form a rectangular socket. In order that the posts which enter the socket shall not when forced therein tend to loosen the bottom 10 of the crate, a metal strip 15 is placed below  
60 each corner-iron F, extending across the corner from a side piece to an end piece, the plate or strip 15 being securely fastened to the bottom of these two parts. Thus the plate  
65 15 serves to tie and strengthen the corner portions of the base, where usually the greatest strength is needed.

Each upper side piece B consists of a frame 16 of a length equal to the length of the base from end to end, and the material from which  
70 the frame is constructed is preferably of the same thickness as the material from which the end and side pieces of the base are made. The frame 16 is a skeleton frame, and the opening therein is covered by a netting 16<sup>a</sup> of  
75 any approved mesh.

The upper side pieces B are connected with the lower side pieces 11 by means of hinges G, and these hinges are preferably of the  
80 form shown in Fig. 3. The lower member of each hinge, which members are driven into the inner faces of the stationary side pieces 11, is in the form of a staple; but at the upper end of the bend of the staple an outwardly-extending loop 18 is formed. The  
85 upper member 19 of each hinge is likewise in the form of a staple, the bow-section of the staple being made to enter the loop 18 of the lower member of the hinge, and the members of the upper hinge-sections at their free ends  
90 are bent at an angle to the body and driven into the lower rail of the upper side pieces B. Under this construction a simple, durable, and economic form of hinge is employed and one that will not readily get out of order  
95 and which may be easily replaced when necessary.

The upper end sections of the pieces C may be entirely removed from the base. These  
upper end sections C are of peculiar con- 100



struction, the construction being best shown in Fig. 2. Each end section comprises a skeleton frame 21, the opening whereof is covered by a meshed material 21<sup>a</sup>. The posts 5 or upright members of the end frames, however, are much wider than the upper and the lower bars of the frame. The upper bar 21 rests upon the corner-posts near the front or rear edge, leaving a shoulder 22 adjacent to the inner face of the said upper bar of the frame, while the lower portions of the corner-posts are cut away to receive at the outer edges of said corner-posts the lower bars of the frame, and the reduced portions 23 of said corner-posts are carried downward in engagement with the inner faces of the fixed sides 12 and into the sockets formed by the angle-irons F.

The top or cover E consists of a rectangular frame of slightly less dimensions transversely than the space that intervenes the upper side pieces. The top frame 24 is provided near one end with an intermediate cross-bar 25 and with longitudinal bars 26, which connect with the intermediate bar 25 and adjacent end bar, forming thereby an opening 27, and the longitudinal bars 26 are provided with ledges 28 upon their inner faces adapted to receive and support a cover 29 for the opening 27 when said cover is closed. The cover is preferably attached to the intermediate cross-bar 25 by suitable hinges, and when the cover is closed it is so held by means of a button 30, preferably constructed of metal. When the cover is in position, it will rest at its ends upon the ledges 22, formed at the top of the corner-posts of the removable end sections of the crate.

The cover-section E is made of less width than the width of the space between the folding side sections, in order that pins 20, secured in the inner face of the upper rail of the said folding side sections, may enter openings in the side rails of the top or cover section E, as shown particularly in Fig. 3. When the crate is to be used, the folding side pieces B are carried to an upright position. The end pieces or sections C are then placed between the side sections and the corner-posts are carried down into the sockets prepared for them. The top or cover section E is then made to rest upon the ledges 22 on the corner-posts, and the side sections are drawn toward the sides of the cover-section until the pins 20 in the side sections enter the openings in the cover-section, whereupon the folding side sections are held securely in position, and likewise the end sections, preferably by means of hooks 32, located at each end of the folding side section, arranged to enter staples 33, located upon the removable end sections.

When the crate is empty and is to be transported or returned, the fastening devices are loosened, the cover-section is removed, and

likewise the end sections C, and these end sections are placed upon the bottom of the base, as shown in Fig. 4. The cover-section is then placed over the end sections, resting upon the corner-irons F, and finally the side sections B are folded down over the cover and upon the base and are held in position by causing the hooks 32 to enter keepers 34 at the ends of the base.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a folding crate, the combination, with a base comprising parts rigidly connected, the said base having sockets interiorly located at the corners, of an upper folding section, comprising side pieces having a hinged connection with the corresponding parts of the base-section, end pieces adapted to rest upon the end portions of the base-section, the end pieces being provided with corner-posts arranged to enter the sockets in the said base, the corner-posts being also provided with ledges at their upper ends, and a cover-piece adapted to rest on the ledges of the end pieces, the cover-piece being provided with a door, and locking devices connecting the side pieces of the upper section with the end pieces of said upper section, all combined for operation, substantially as described.

2. In a folding crate, the combination, with a base-section, parts of which are rigidly connected, brace-plates connecting the sides and ends of the base-section at the corners, and corner-irons attached to the ends and sides of the base-section at the interior, forming corner-sockets, of an upper folding section, comprising side pieces hinged to the side pieces of the base and capable of folding inward only, end pieces removable from the base, comprising a frame adapted to rest upon the end portions of the base, the corner-posts of said frame being provided with ledges at the inner portion of their upper surfaces and with a reduced section extending below the frame and arranged to enter the sockets formed by the corner-irons, and a cover-piece adapted to rest upon the ledges of the corner-posts, the said cover-piece being provided with a door and with openings in its side, pins extending from the hinged side posts, arranged to enter the openings in the cover-piece, latches pivoted to the folding side pieces, and keepers located upon the removable end pieces and likewise upon the ends of the base-section, the keepers on the end pieces receiving the latches when the crate is set up, and the keepers on the base receiving the latches when the crate is folded, as specified.

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Witnesses:

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