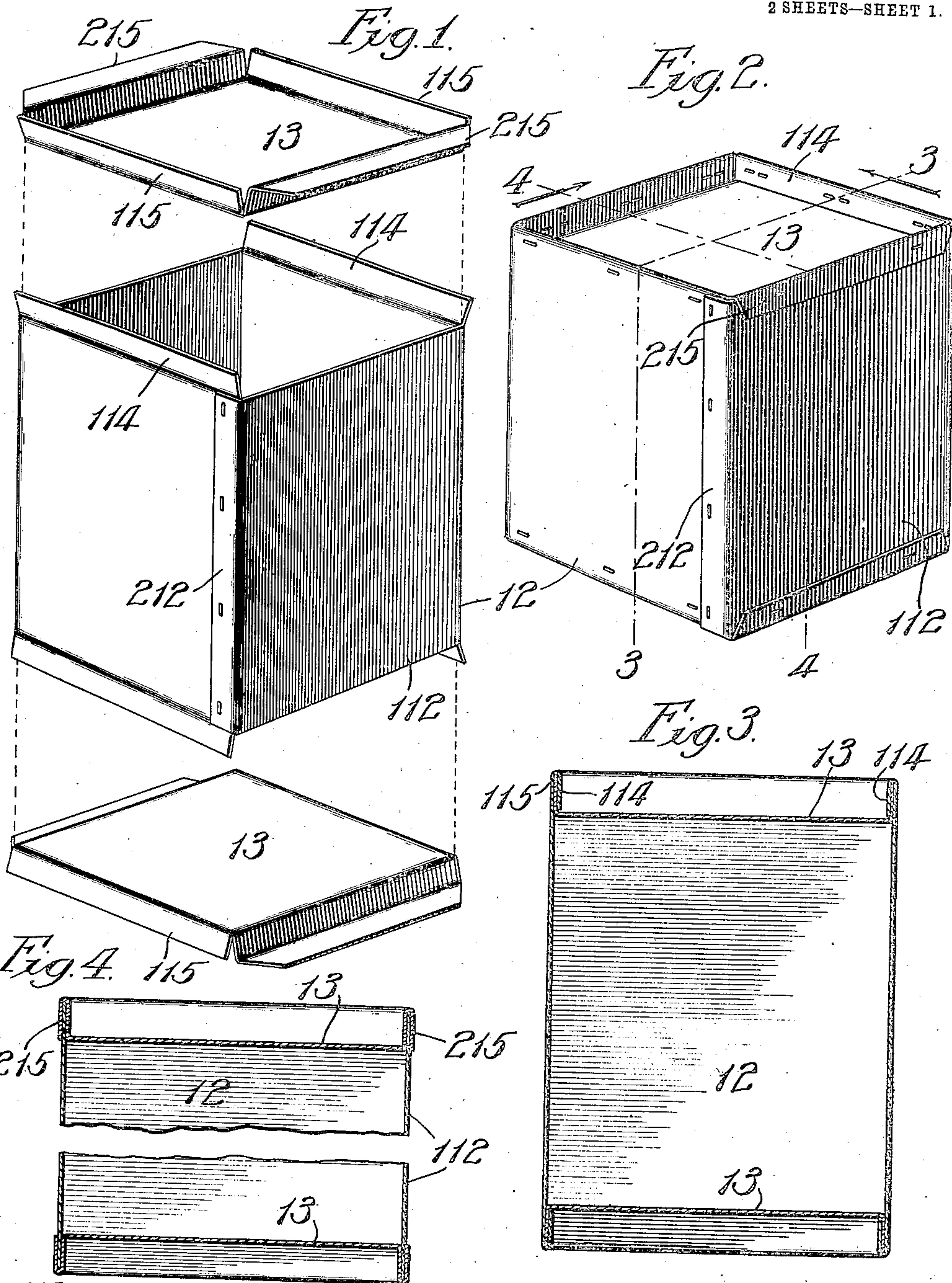


E. E. FLORA.
BOX.

APPLICATION FILED JAN. 2, 1909.

Patented Apr. 13, 1909.
2 SHEETS—SHEET 1.

918,138.



Witnesses:
John Enders
Chas. H. Buell

Inventor:
E. E. Flora.
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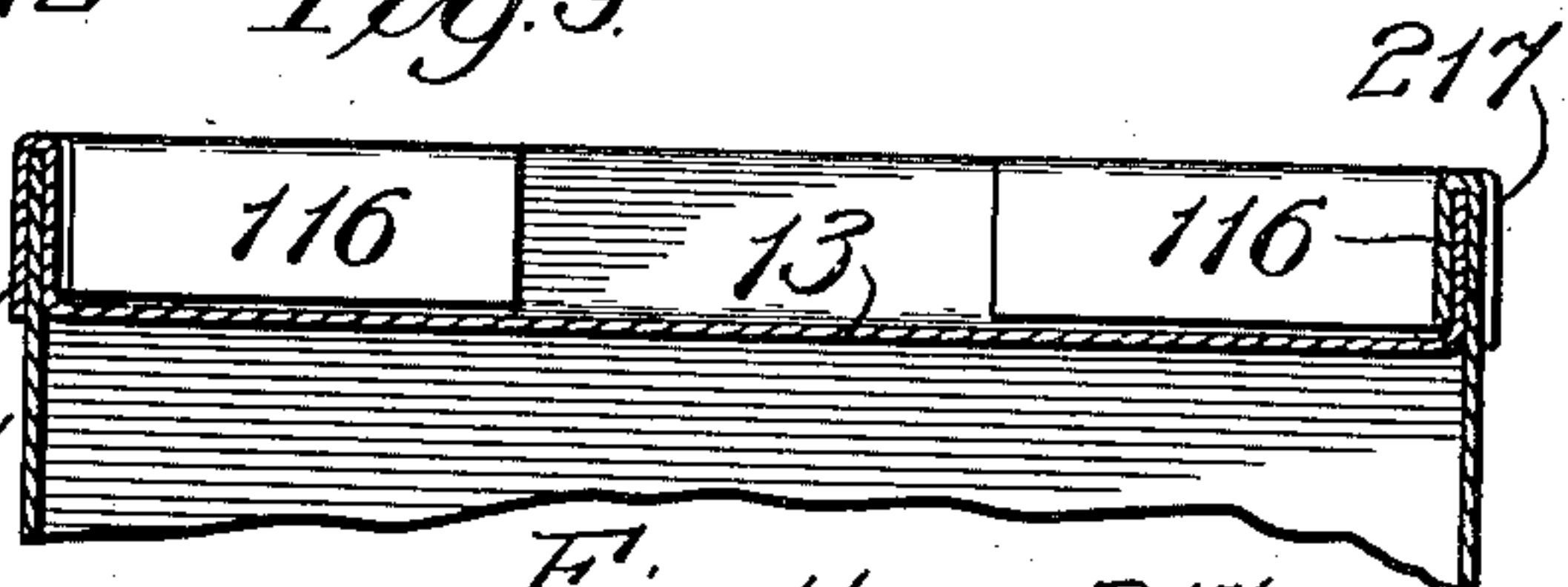
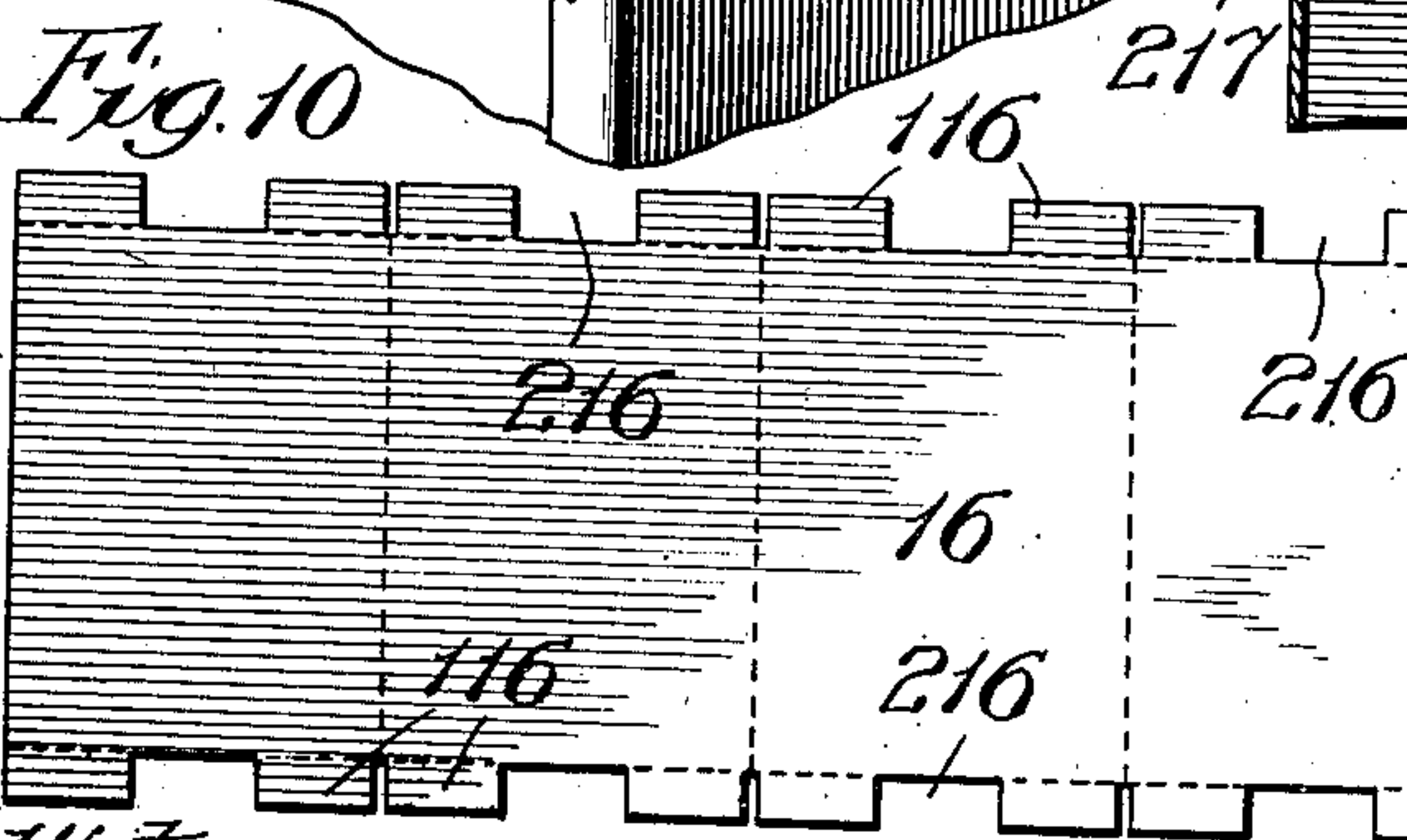
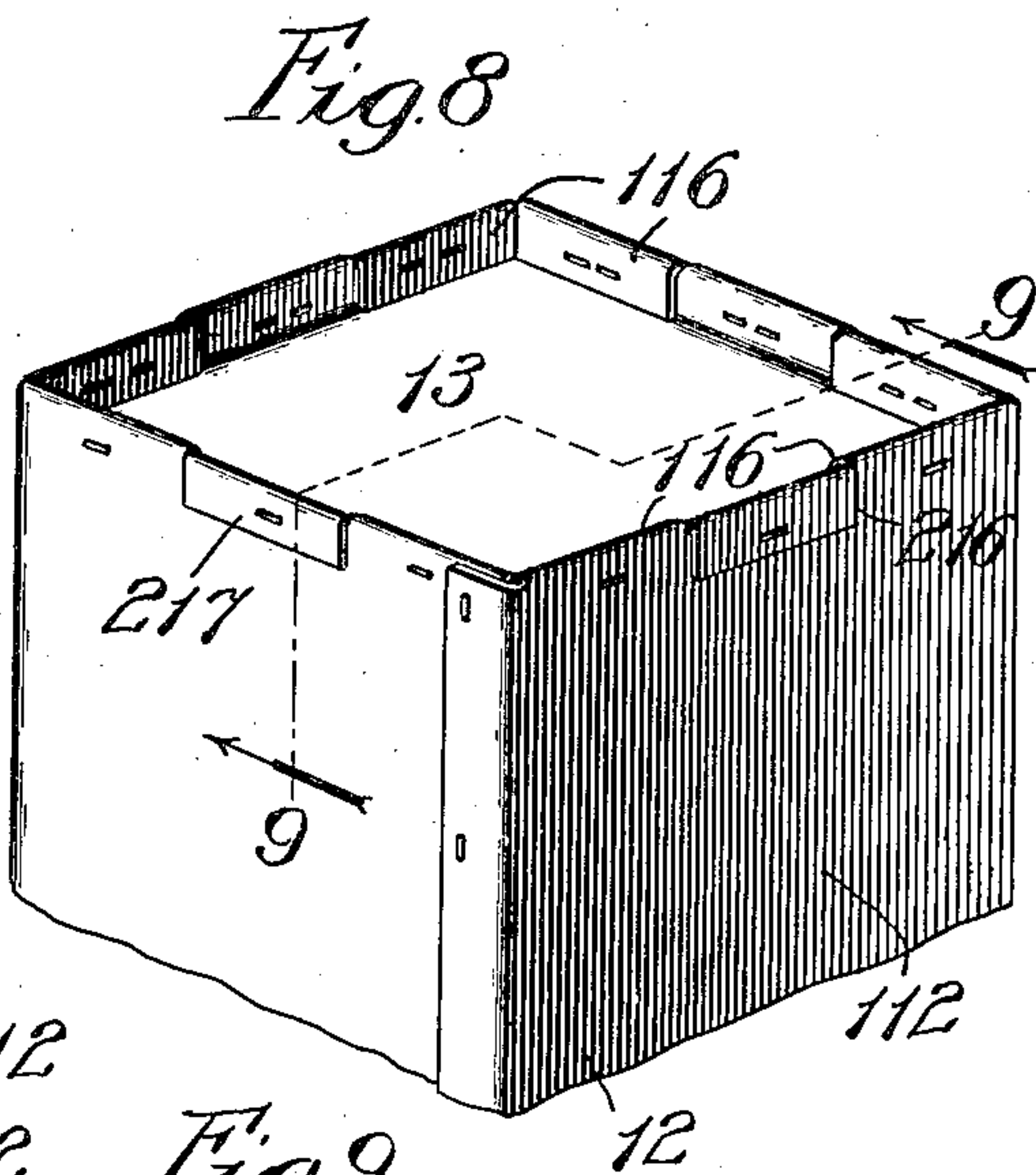
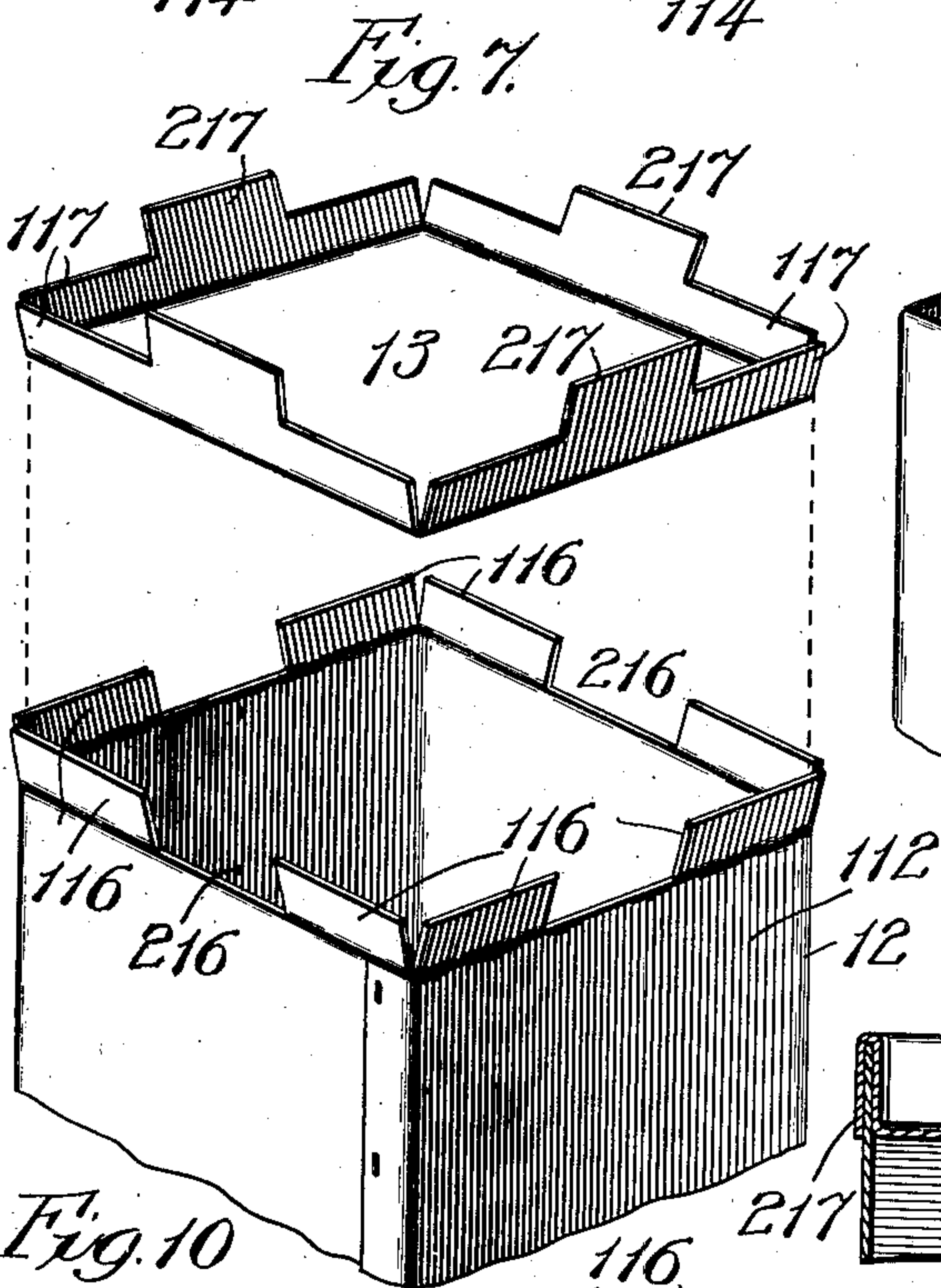
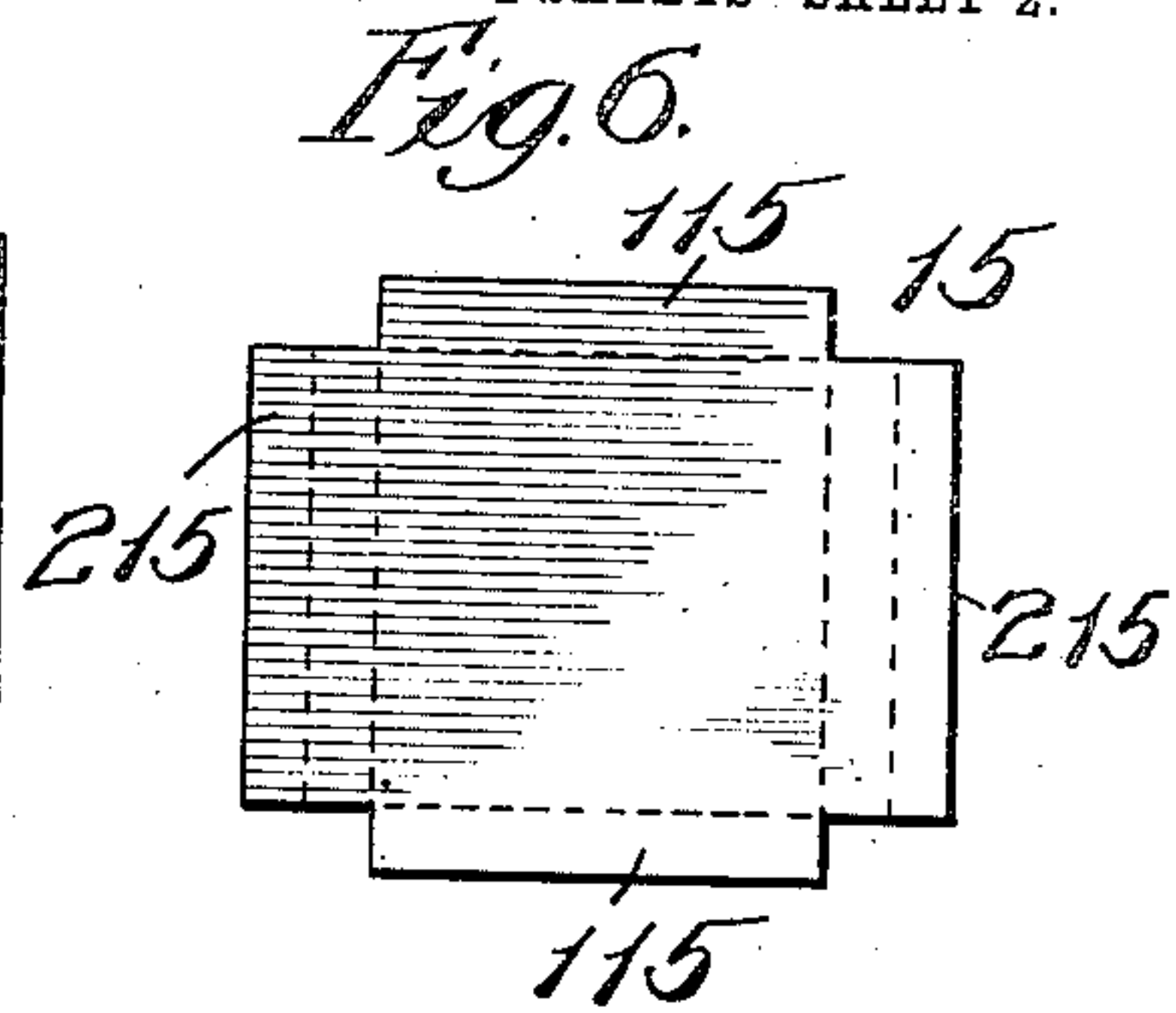
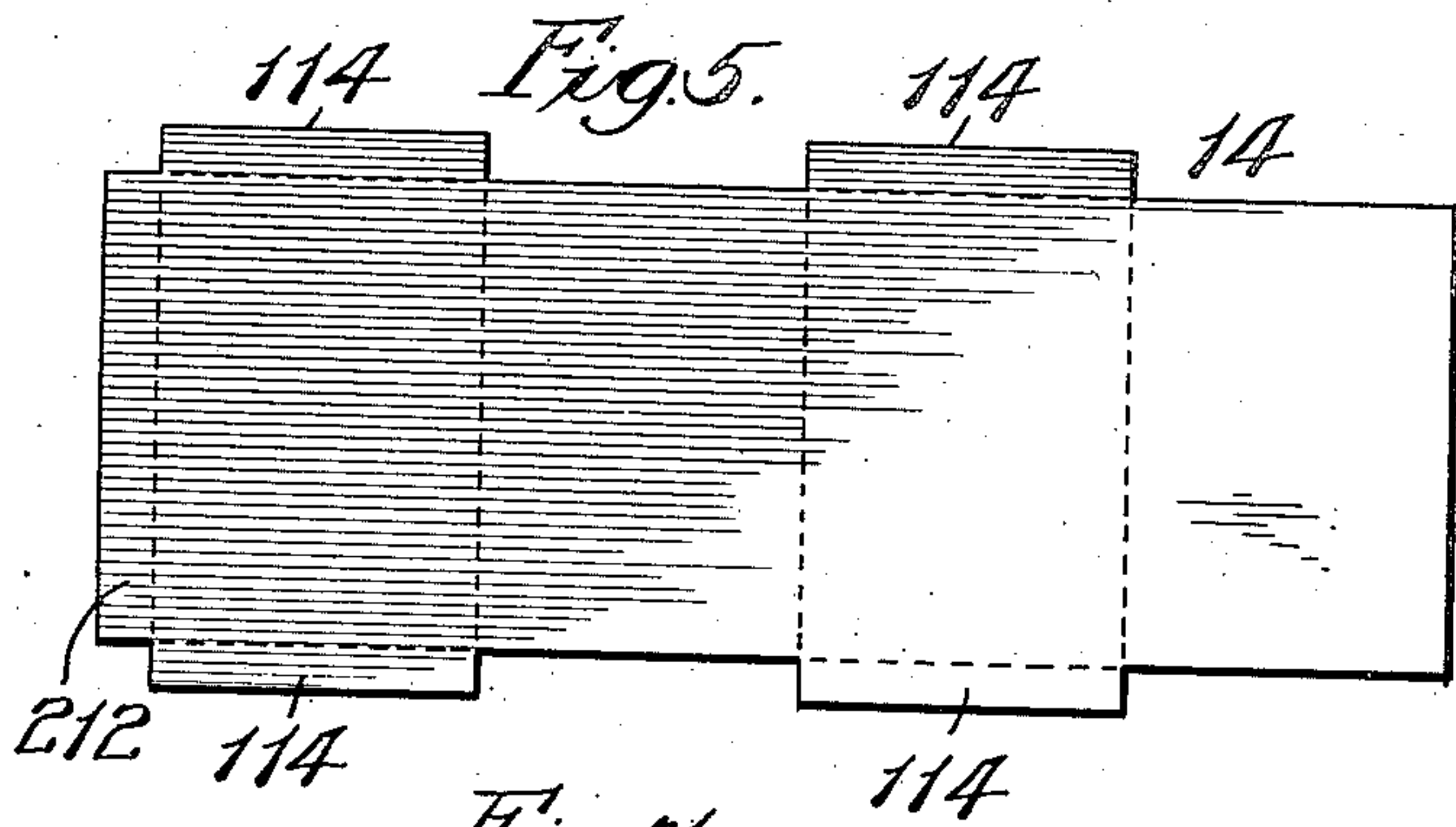
BOX.

APPLICATION FILED JAN. 2, 1909.

918,138.

Patented Apr. 13, 1909.

2 SHEETS—SHEET 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

ELLSWORTH E. FLORA, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO W. E. ROTHERMEL, OF CHICAGO, ILLINOIS.

BOX.

No. 918,138.

Specification of Letters Patent.

Patented April 13, 1909.

Application filed January 2, 1909. Serial No. 470,357.

To all whom it may concern:

Be it known that I, ELLSWORTH E. FLORA, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Boxes, of which the following is a specification.

My invention relates to an improvement in boxes which I have devised, more particularly, for use in paper-board or fiber-board boxes to enable them to be provided with countersunk or in-set heads permanently fastened in place by rivets, eyelets or other suitable securing means applied to mutually overlapping reinforcing flaps of the box-body and heads; the primary object being to provide a peculiarly strong and neat box of the material referred to.

In the accompanying drawings, Figure 1 is a perspective view of a box of my improved construction, showing the heads in unassembled relation to the box-body; Fig. 2 is a similar view of the complete box; Fig. 3 is an enlarged broken section on line 3—3, Fig. 2, and Fig. 4 is an enlarged section on line 4—4, Fig. 2; Figs. 5 and 6 are plan views of the blanks respectively for the body and one of the two similar heads of the box of Fig. 2; Fig. 7 is a broken perspective view showing a modified construction of the box, one head being represented in unassembled relation to the box-body; Fig. 8 is a broken perspective view of the box of Fig. 2 embodying the modified construction; Fig. 9 is an enlarged section on the irregular line 9—9, Fig. 8, and Figs. 10 and 11 are plan views of the blanks respectively for the body and head of the modified construction.

The box-body 12 and the similar heads 13 of the construction shown in Fig. 1 are produced, respectively, from blanks 14 (Fig. 5) and 15 (Fig. 6), the blanks being cut from fiber-board or "pulp-board", as the preferred material. The blank 14 for the box-body of rectangular shape is a strip of the material creased transversely at suitable intervals to form sections, as indicated by dotted lines, to adapt it to be folded for producing the body 12 with one section forming the cover 112 provided with a flap 212 through which to fasten it by staples, as shown, or otherwise, to the adjacent side of the body, which it overlaps. The blank 14 also has flaps 114 extending laterally at intervals from the

opposite edges of alternate sections, these flaps being rendered readily foldable by creases extending lengthwise of the blank, as indicated by dotted lines. The blank 15, which is the same for each head 13, has flaps 115 extending from two opposite edges like the flaps 114, and two wider flaps 215 extending from its other edges, each adapted to be folded lengthwise upon itself, as well as at its junction with the body of the blank.

With the box-body produced in the form represented in Fig. 1 from a blank 14, and heads 13 produced in the form shown from blanks 15 and of dimensions adapting them to be inserted and countersunk into the open ends of the body, in inserting a head into place its folded flaps 115 encounter the extremities in their paths of the box-body and these extremities present abutments against inserting the heads too far, whereby the outer edges of the flaps 115 register with the bases of the flaps 114, which are folded inwardly against the flaps 115 and fastened thereto by the rivets shown passed through three thicknesses of the material, or other suitable means; and the flaps 215, which embrace the adjacent end-portions are similarly fastened thereto, thus rendering the box there also of triple thickness. As will be understood, owing to the stop-function of the flaps 215 it is practically impossible, in assembling the parts of the box, to insert the head 13 so far as to take the flaps 115 out of such registration with the flaps 114 as would tend to cause staples, rivets, eyelets, or the like, driven through the flaps 115, to miss the flaps 215, as might easily ensue in the assembling were the stop-flaps omitted; and the function of the mutually overlapping flaps 114 and 115 is to resist tendency to displacement of the heads by being forced outwardly under pressure within the box or crushing-pressure exerted upon it.

The construction thus described is peculiarly effective in rendering a box made of inherently weak and flexible material, such as pulp-board, adequately strong as a shipping-box for merchandise, inasmuch as it enables the countersunk heads, which of themselves brace the structure, to be used in a more effective manner by locking them against displacement in either direction—that is outwardly or inwardly—and incidentally reinforcing the box with a plurality

of thicknesses of the material about the ends where it is subjected to the hardest usage in handling.

5 The modified construction illustrated differs from that described only in applying to the heads the opposing interlocking functions of the flaps on each of the four sides of the box. To accomplish this result, each section of the blank 16 (Fig. 10) defined by
10 the transverse creases indicated by dotted lines, is provided on each of its lateral edges with two short flaps 116 forming between them a recess 216; and the blank terminates at one end in a tongue 212. The blank 17
15 (Fig. 11) for a head 13 of the modified construction has extending from each edge a flap 117 like the flaps 215, except that the outer folding section thereof is reduced in length to form a central tongue 217 adapted
20 to fit in a space 216.

In assembling the parts to produce the modified construction of the box, with the blank 16 formed into the box-body 12 of Fig. 7, in inserting a head 13, the folded
25 tongues 217 of the flaps 117 pass through the spaces 216 and stop the box-head against undue extent of insertion at each side thereof, and folding the flaps 116 over and against the outwardly turned flaps 117 ob-
30 structs the box-head against displacement in the outward direction. The heads are secured in place, as by staples or other fas-

tenings driven through the several thicknesses of material produced by the mutually overlapping parts.

What I claim as new and desire to secure by Letters Patent is—

1. A box composed of flexible material, such as pulp-board, comprising a body-portion having flaps extending from its opposite
40 ends, and heads countersunk into the ends of the body-portion, said heads having outwardly projecting flaps, upon which said first-named flaps are folded and secured, and flaps folded upon themselves over the
45 ends of the box-body and secured thereto, for the purpose set forth.

2. A box composed of flexible material, such as pulp-board, comprising a body-portion having flaps extending from opposite
50 sides of each open end, and heads countersunk into the ends of the body-portion, said heads having outwardly projecting flaps, upon which said first-named flaps are folded, and flaps folded upon themselves over the
55 ends of the box-body between said sides, and fasteners penetrating the several thicknesses of material about each head, for the purpose set forth.

ELLSWORTH E. FLORA.

In presence of—

J. G. ANDERSON,
R. A. SCHAEFER.