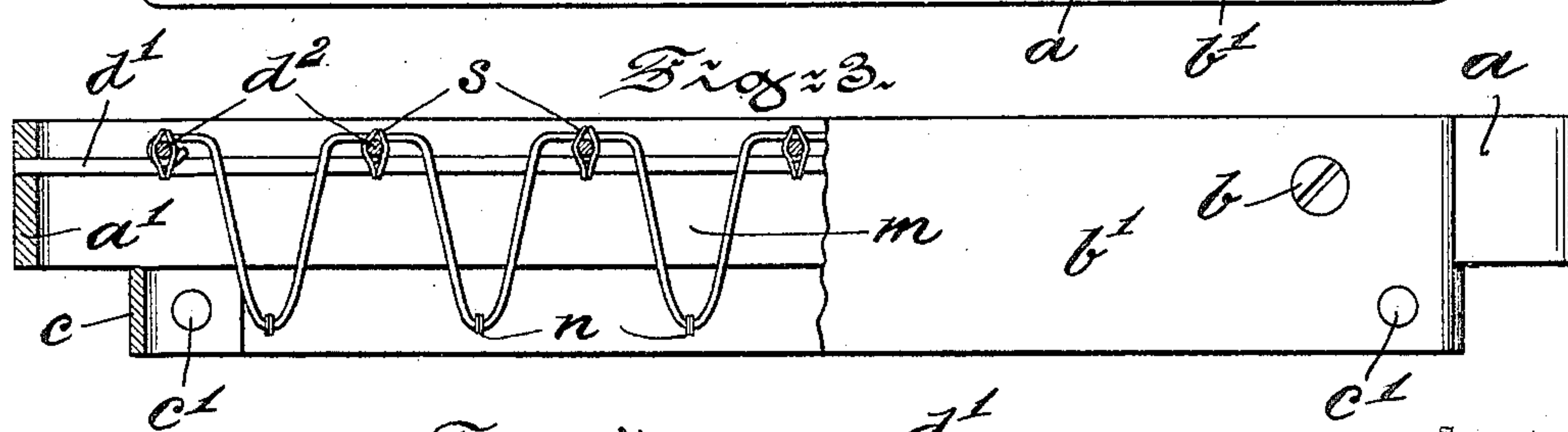
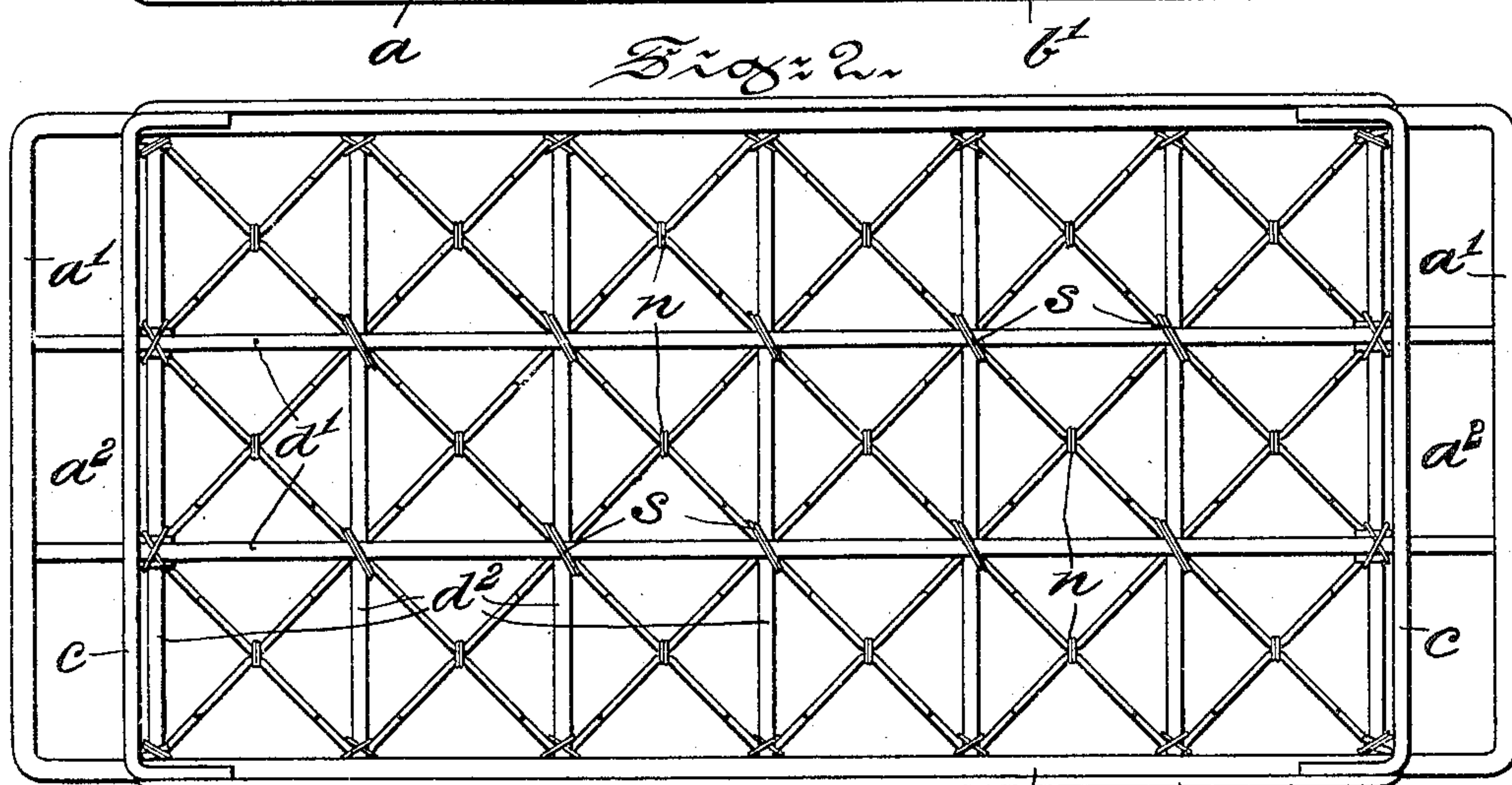
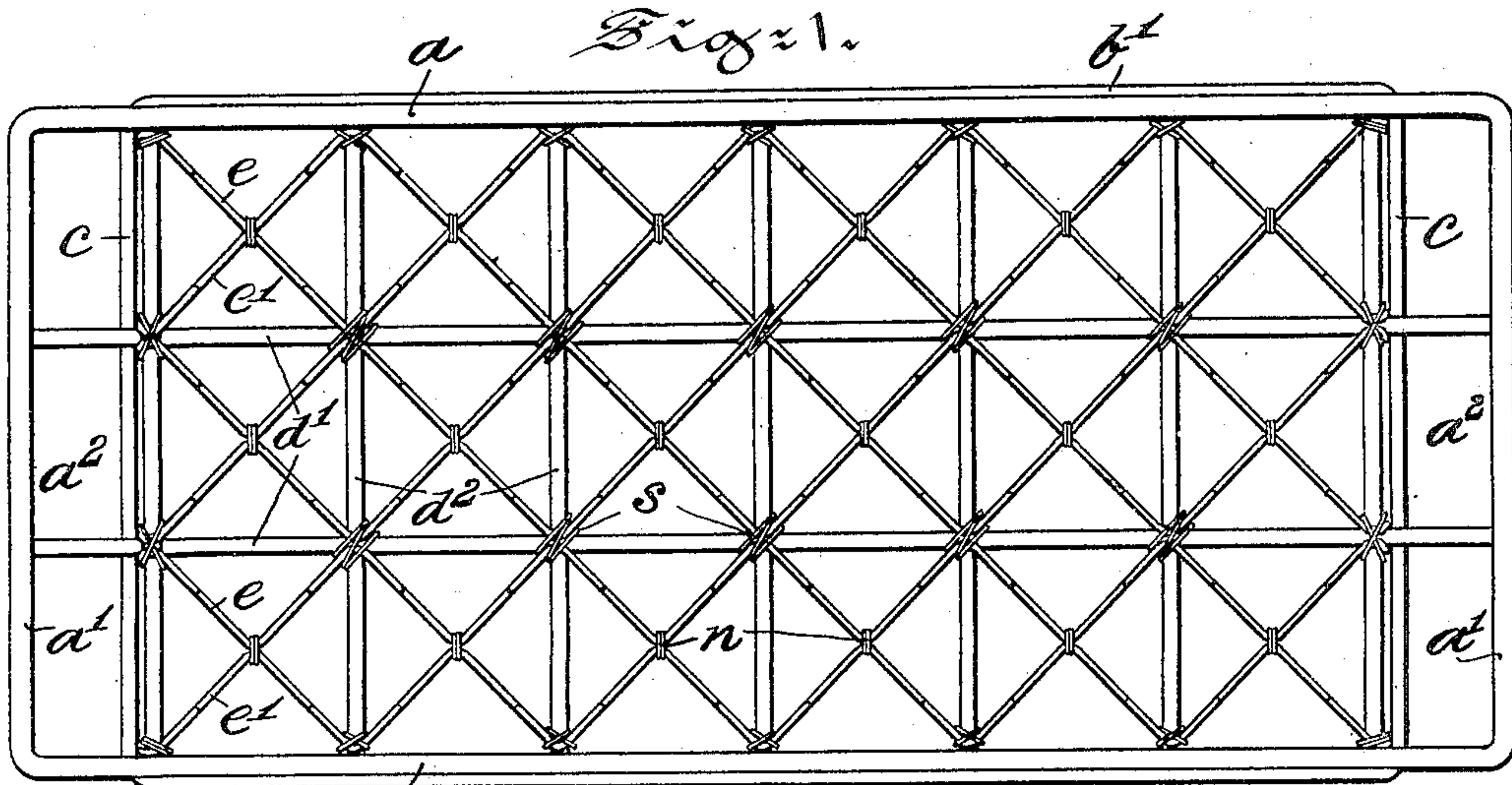


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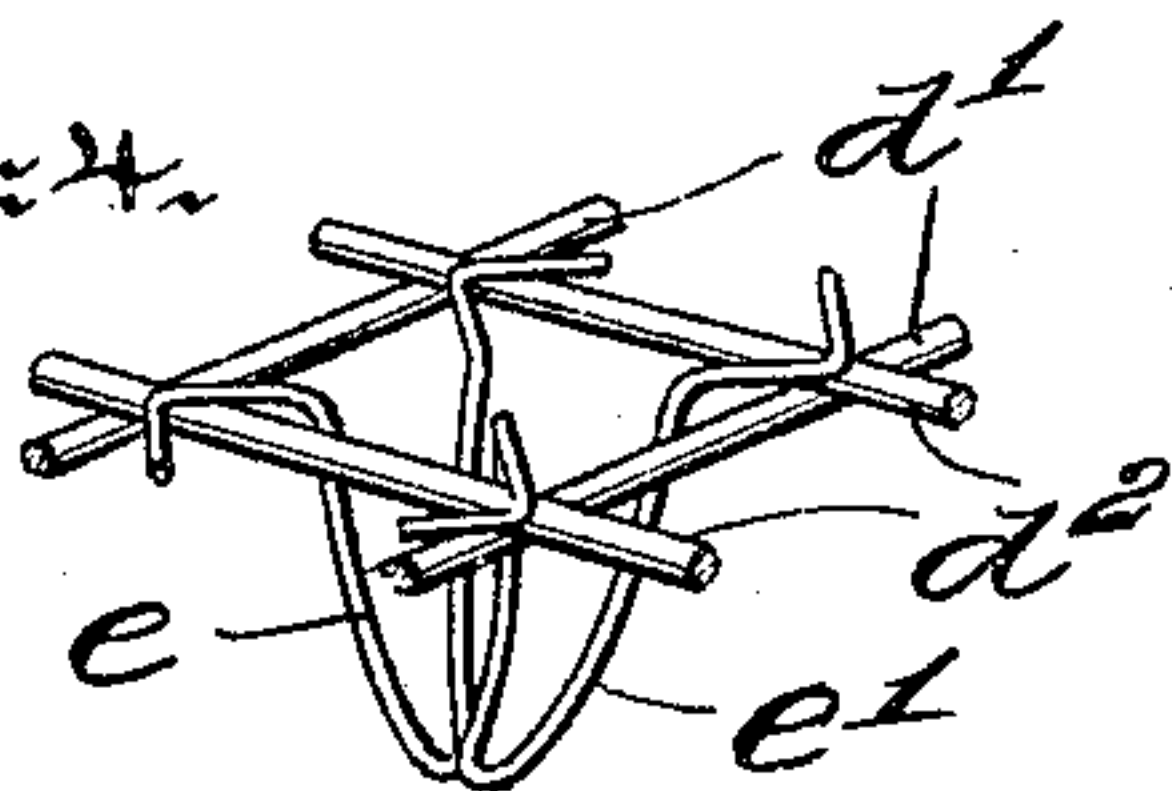
PATENTED AUG. 14. 1906.

W. H. WEEKS.
CHOCOLATE DIPPING TRAY.
APPLICATION FILED JUNE 13, 1906.

2 SHEETS—SHEET 1.



Witness
Jas. C. Wobensmith
A. M. Biddle



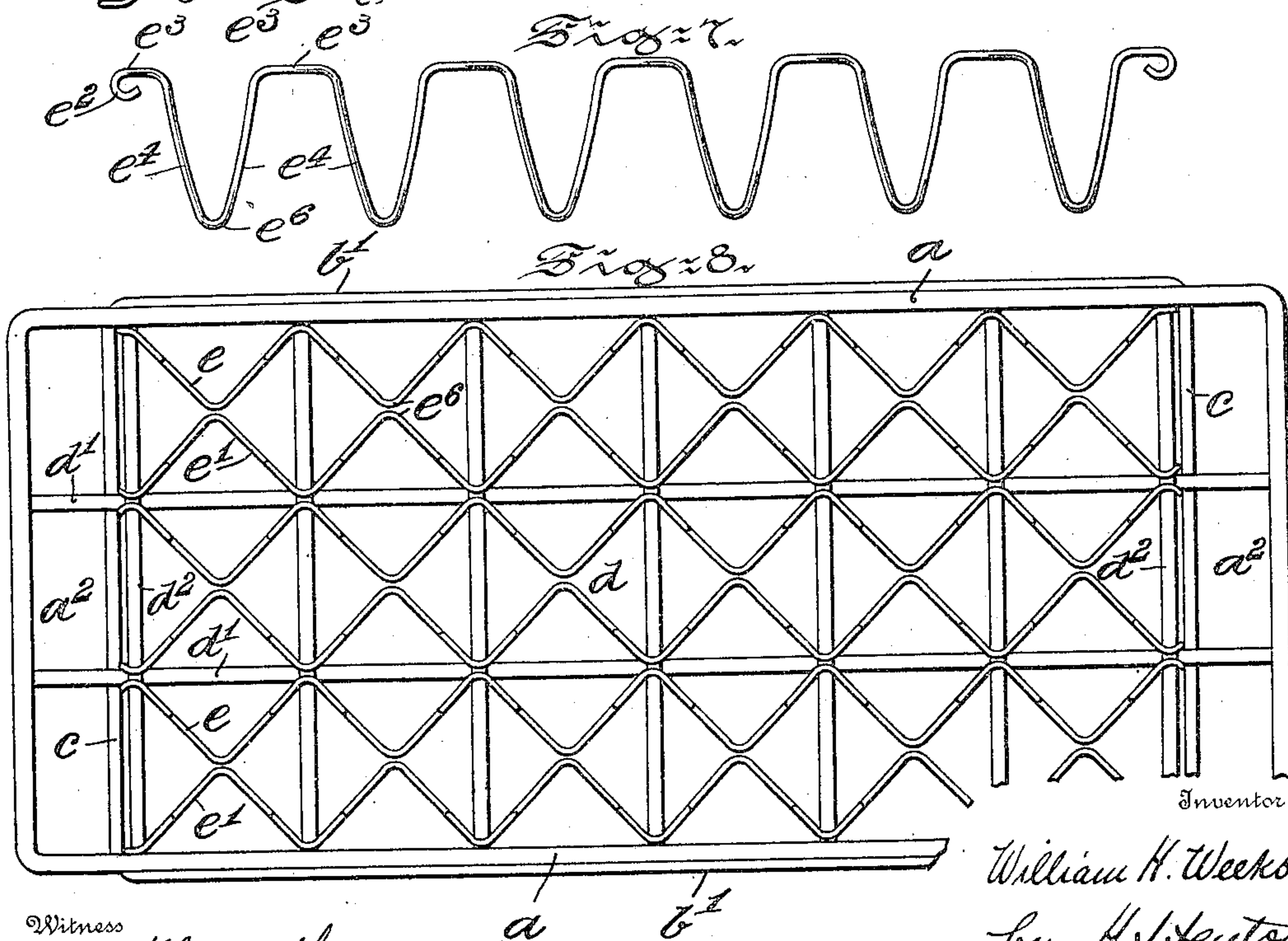
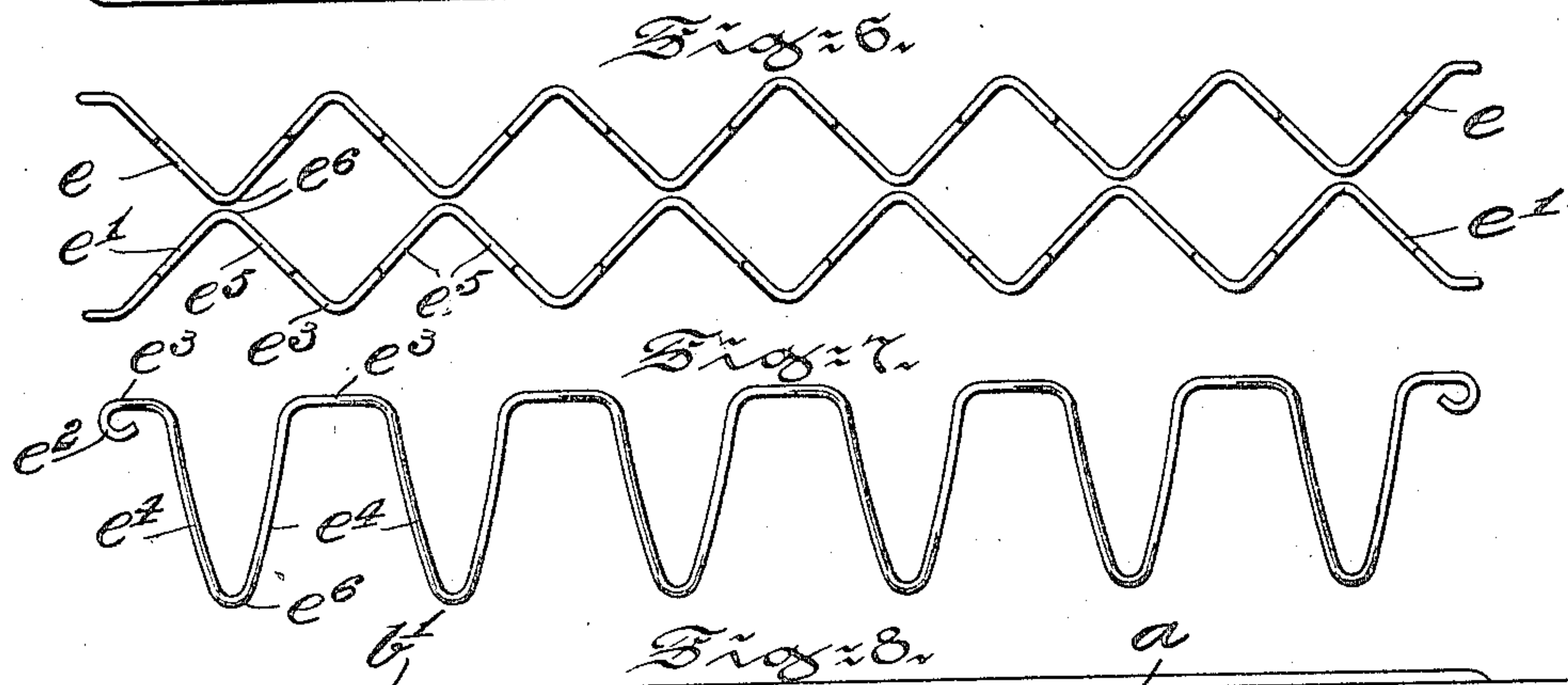
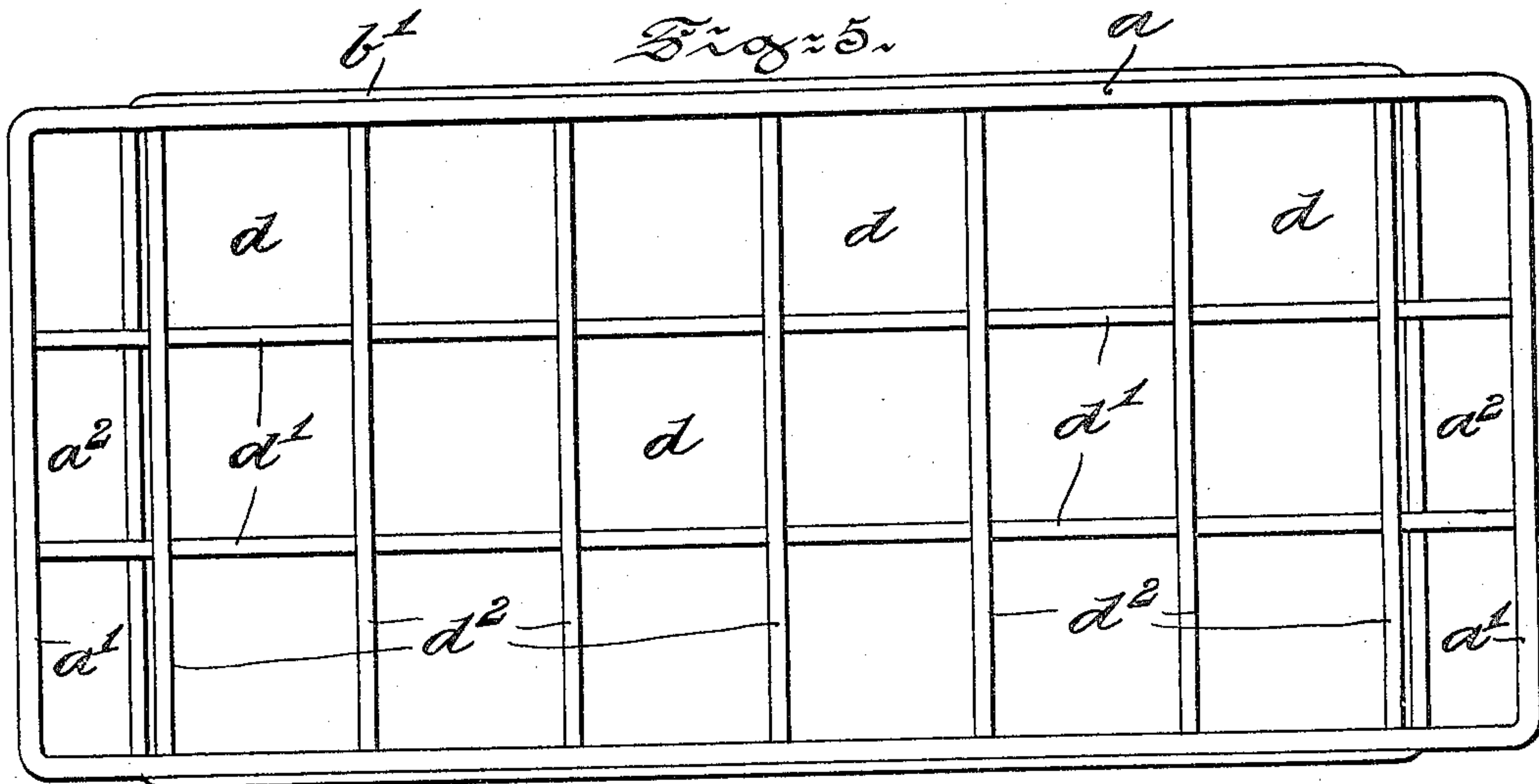
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

WILLIAM H. WEEKS, OF PHILADELPHIA, PENNSYLVANIA.

CHOCOLATE-DIPPING TRAY.

No. 828,694.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed June 13, 1906. Serial No. 321,450.

To all whom it may concern:

Be it known that I, WILLIAM H. WEEKS, a citizen of the United States, residing in the city of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Chocolate-Dipping Trays, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to dipping trays or frames for suitably supporting candy-cores and the like while being dipped in melted chocolate or other coating solutions, and more particularly to that class of removable trays adapted for use in connection with chocolate-coating machines wherein the tray is filled with cores by the operator and manually placed upon the movable dipping mechanism of the machine for immersion, with its contents, in the liquid chocolate or other coating solution. Such trays must be light in weight, capable of holding each core separately in a suitably-formed pocket or compartment and supporting it therein in such manner that it may be fully coated when dipped, and that the soft coating may not while hardening be injuriously affected by the shape of the supporting-wires. Such trays have usually been constructed of rectangular wire frames with a series of pairs of suitably-bent pocket-forming wires running parallel with the frame-wires, each pair similarly bent, crossing each other to form the pocket, the top wire resting on the lower wire, such support being aided by a series of longitudinal or lateral supporting-rods between the frame-wires. Devices of this class having the characteristic features of construction referred to have long been in common use, examples of two types being shown and described in United States Letters Patent No. 526,968, dated October 2, 1894, to C. Gousset, and German Letters Patent to Anton Reiche, No. 18,943, dated December 11, 1881. Both of these devices are open to objections, chief of which are that in the principle of construction involved in each of them the integrity of each pocket is dependent upon the integrity of all in any series or line of pockets, they all lacking means to segregate each pocket by independent supports for that portion of each pair of wires forming a pocket, also that due to a lack of such means and to the principle of forming the

pockets by bent wires crossing and resting on each other the pockets were not always uniform and the wires forming them were constantly liable to distortion, and, finally, that this method of forming the pockets is an expensive and difficult method of construction.

My invention in that class of devices is predicated more particularly on the type of tray described in the aforesaid German patent and shown in Figures 5 and 6 of the drawings thereof, wherein each series of pocket-wires, which cross each other, run in a diagonal direction relatively to the sides of the supporting-frames, and my invention is designed to produce a tray which shall be wholly free from its defects as well as free from the objectionable features of the tray described in said United States patent referred to, which shall be capable of easy and economical construction, in which all the pockets are of uniform size and shape, in which each pocket is wholly independent of every other in the frame, in that it is independently supported, and in which the pockets are formed without any crossing of the pocket-forming wires, and in which shield-plates are supplied and the ends of the frame employed to provide integral handles.

To these ends my invention consists of the combination, with a rectangular supporting-frame, of a series of lateral and a series of longitudinal cross-rods arranged transversely to each other and secured to the frame, forming parallel series of individual and independent pocket frames or compartments of rectangular form, each containing a core-supporting pocket composed of a pair of suitably-bent wires which when assembled as hereinafter stated form a pocket composed of four wire members proceeding diagonally from the intersections of the rectangular pocket frames or compartments.

My invention also consists in forming pockets of that character in independent series from a single pair of suitably-bent wires set reversely, each adapted to form one side of a series of pockets, each wire in the pair meeting at the terminal of its lowest bend in each pocket-forming bend, the two wires being fastened together by wire or solder at said meeting-point, each wire of said pairs of wires resting at the terminal of its upward bend in each pocket-forming bend at the intersection of the compartment-forming cross-rods.

My invention also comprises, in the example shown, a specific formation of the pocket-wires to adapt them to form a pocket of a shape to properly support a pyramidal candy core with its apex pointing downward and also that the wires of each pair will not only meet for the purpose of securing them to form a pocket, but in order that the extent of the coinciding or meeting surfaces will be reduced to a minimum.

Finally, my invention comprises constructing the supporting-frame of a metallic flat band of some width arranged edgewise and bent into rectangular form, with shield-plates mounted upon the longitudinal sides of the frame less in length than the length of said sides, but extending in width below the same to a distance slightly greater than the depth of the pockets, whereby the latter are protected from destructive contact in use and whereby, also, the ends of the frame which project beyond the ends of the shield-plates provide an integral handle at each end, affording convenient means for the operator to grasp the dipping-tray in lifting it on or from the dipping-machine.

In the accompanying drawings, illustrating an embodiment of my invention in its best form, Fig. 1 is a top plan view. Fig. 2 is a bottom plan view. Fig. 3 is a longitudinal side elevation, partly in section. Fig. 4 is a perspective of a section constituting a compartment of the pocket-supporting cross-rods with a pair of the pocket-forming wires therein, intended to show the shape of the latter. Fig. 5 is a top plan view of the frame before the pocket-wires are placed in position therein. Fig. 6 is a plan view of a pair of the pocket-forming wires. Fig. 7 is a side elevation of one of the same; and Fig. 8 is a similar view to Fig. 1 with the pairs of pocket-wires assembled, but not secured to each other nor to the pocket-supporting cross-rods, said view being designed to show more clearly the principle of construction of the pockets.

Referring now to the drawings, the main frame is indicated at a in the several figures and consists of a thin flat band of metal of some little width arranged edgewise, as shown in Fig. 3, and bent to form an oblong rectangular structure, with two short sides a' and two opposite long sides a . On each of the two opposite long sides a is securely fastened by screws b or otherwise a shield-plate consisting of a flat metal strip b' , also arranged edgewise. Its function is twofold—namely, it is of lesser length than the frame side a , on which it is mounted, in order that the relatively projecting ends a^2 of the frame may be utilized as handles, and it is of greater width than the frame side a and of the core-pockets m (see Fig. 3) in order as a supporting-base for the tray to shield the wire pockets from destructive contact with extraneous objects when in use.

For strengthening purposes a cross-band c at each end of the opposite shield-plates b' (see Figs. 2 and 3) is riveted thereto, as at c' , and unites the ends of the opposite guard-plates.

The main frame is divided into a series of separate and independent compartments d (see Fig. 5) of rectangular form by means of a series of cross-rods d' d^2 , arranged transversely of each other and of the main frame, the ends thereof being let into the frame-plates slightly below the top edge thereof, as indicated in the sectional view at left hand of Fig. 3. These cross-rods are arranged, respectively, parallel with the frame-plates and at their points of coincidence are secured together by any suitable means—for example, by wire-tying, as shown in the drawings, or by soldering. It will thus be seen that each pocket-supporting compartment d is separate and independent in the sense that the integrity of each is not dependent upon the integrity of all.

Although the pocket-supporting compartments d are formed by cross-rods which cross at right angles to each other and to the frame-plates, it is characteristic of my device that the pocket-forming wires are arranged therein diagonally of the compartment. These I will now describe.

A set of wires e e' , Fig. 6, all bent exactly alike and double in number to the number of compartments in the main frame, are first arranged in the several compartments in pairs in reverse position, as shown in Figs. 6 and 8. For each compartment-space these wires are provided with bends, first horizontally, as indicated at e^3 , (see Fig. 7,) then a downward followed by a like upward bend, as at e^4 e^4 , then another and similar horizontal bend e^3 . The bends e^4 e^4 are also given an inward incline, as at e^5 , Fig. 6, in order that when arranged in pairs in reverse position they will coincide or meet at the base e^6 and be united thereat by soldering or wire-tying, as at n , Fig. 3. The shape of the downward bends shown and described forms an inverted pyramid most suitable for coating cream-drops of that shape, with the apex pointing downward, so that the liquid chocolate after dipping will drain toward the point or apex of the core and produce a more even and slightly coating; but the shape of the downward bends may be varied in some respects to adapt the pockets to properly support cores of somewhat different shapes, the essentials being the terminal horizontal portions e^3 e^3 and the inward incline e^5 in order to produce a coincidence at the base of the pocket of the pair of wires set in relatively reverse position. In the drawings I have shown the compartments formed by the cross-rods as square; but they may be oblong rectangles with like effect. As each of the pair of wires e e' consists of a series of united sections, each sec-

tion consisting of the bends described constituting half of a core-pocket, it is obvious that instead of making them in a series of united sections, as shown in Figs. 6, 7, and 8, they may be made in separate sections, as indicated in Fig. 4; but of course the former is the cheaper method.

Having bent the series of wires e e' as stated, they are assembled to form a series of core-pockets by arranging each wire of a pair in reverse position in the compartments d between the lines of cross-rods d' and resting by the bend e^3 in the transverse cross-rods d^2 , as shown in Fig. 8. Thus the upper bends e^3 of the pocket-wires in contiguous section will meet or coincide, and soldering or wire-tying s (see Fig. 1) will unite the pocket-wires firmly to each other and to both cross-rods d' d^2 of the respective compartments. As the pocket-wires also coincide or meet at the basal junction e^6 of the lower bends and are soldered or wire-tied thereat, as before described, they are firmly held together and in proper position at every point, with the result that each core-pocket is practically independent of every other and if distorted or broken in use the others are not affected in any way.

Thus my tray is composed of a series of rectangular compartments parallel with the main frame, with a wire core-pocket in each compartment the wires of which lie in a diagonal direction in each compartment proceeding from the intersections of the transverse cross-rods forming such compartments, securely held in position at every point, and this without the pocket-wires crossing, yet forming pockets each composed of four wire members. Moreover, the provision of a main frame composed of a flat band of metal set edgewise not only gives strength to the structure, but makes the cross-rods and pockets to be supported therein below the upper horizontal plane of the frame, thereby preventing destructive contact with the pockets from extraneous objects, while the lower plane of the pockets is preserved from like contact by the shield-plates, in addition to which the relative arrangement thereof with the frame sides provides integral end handles most convenient for handling the tray.

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

1. A dipping-tray of the class recited, comprising a rectangular frame, a series of transversely-arranged cross-rods supported in said frame and united at their intersections forming independent pocket-compartments, and core-supporting pockets mounted in said compartments, each of said pockets being formed from a pair of suitably-bent wires adapted when assembled to coincide and be united, without crossing, at their basal por-

tions and to form pockets with wires running diagonally of the frame.

2. A dipping-tray of the class recited, a rectangular frame, a series of parallel rows of pocket-supporting compartments composed of transversely-arranged cross-rods mounted in said frame and united at their intersections, and a core-supporting pocket in each of said compartments composed of a pair of wires suitably bent to coincide and be united, without crossing at their basal portion and form a core-holder comprising four wire members each supported diagonally in said compartment from the intersections of said cross-rods in the frame.

3. A dipping-frame composed of a series of rectangular pocket-supporting compartments and a wire core-pocket in each of said compartments consisting of four wire members supported diagonally therein, said members being formed by a pair of wires suitably bent to coincide at their basal portion, and united thereat without crossing, the opposite ends of each pair of pocket-forming wires being mounted on the cross-rods of the compartment.

4. A dipping-tray composed of an oblong rectangular frame, two sets of rods mounted therein and arranged in parallel series and transversely to each other, forming rectangular frame-like compartments in longitudinal series, and core-supporting pockets supported in said compartments, composed of a single pair of suitably-bent wires forming all the pockets in each series, each member of the pair of pocket-wires being similarly bent, arranged in reverse position to each other, and united at their coinciding basal portions.

5. A dipping-tray of the class recited, comprising an oblong rectangular frame composed of a suitably-bent flat metal band arranged edgewise, guard-plates on the opposite long sides of the frame, of a greater depth and lesser length than the latter, bars connecting the end of the opposite guard-plates, below the frame; a series of transversely-arranged cross-rods mounted within the frame below the upper horizontal plane thereof, and forming a plurality of parallel rows of rectangular compartments, and a core-supporting pocket in each compartment composed of a pair of wires suitably bent to coincide and be united at their basal bend to form a core-pocket composed of four wire members, each wire of which is supported diagonally in the compartment-frame from each of the four corners thereof.

In testimony whereof I have hereunto affixed my signature this 12th day of June, A. D. 1906.

WILLIAM H. WEEKS.

Witnesses:

CHAS. W. MILLER,
WM. J. LINDER.