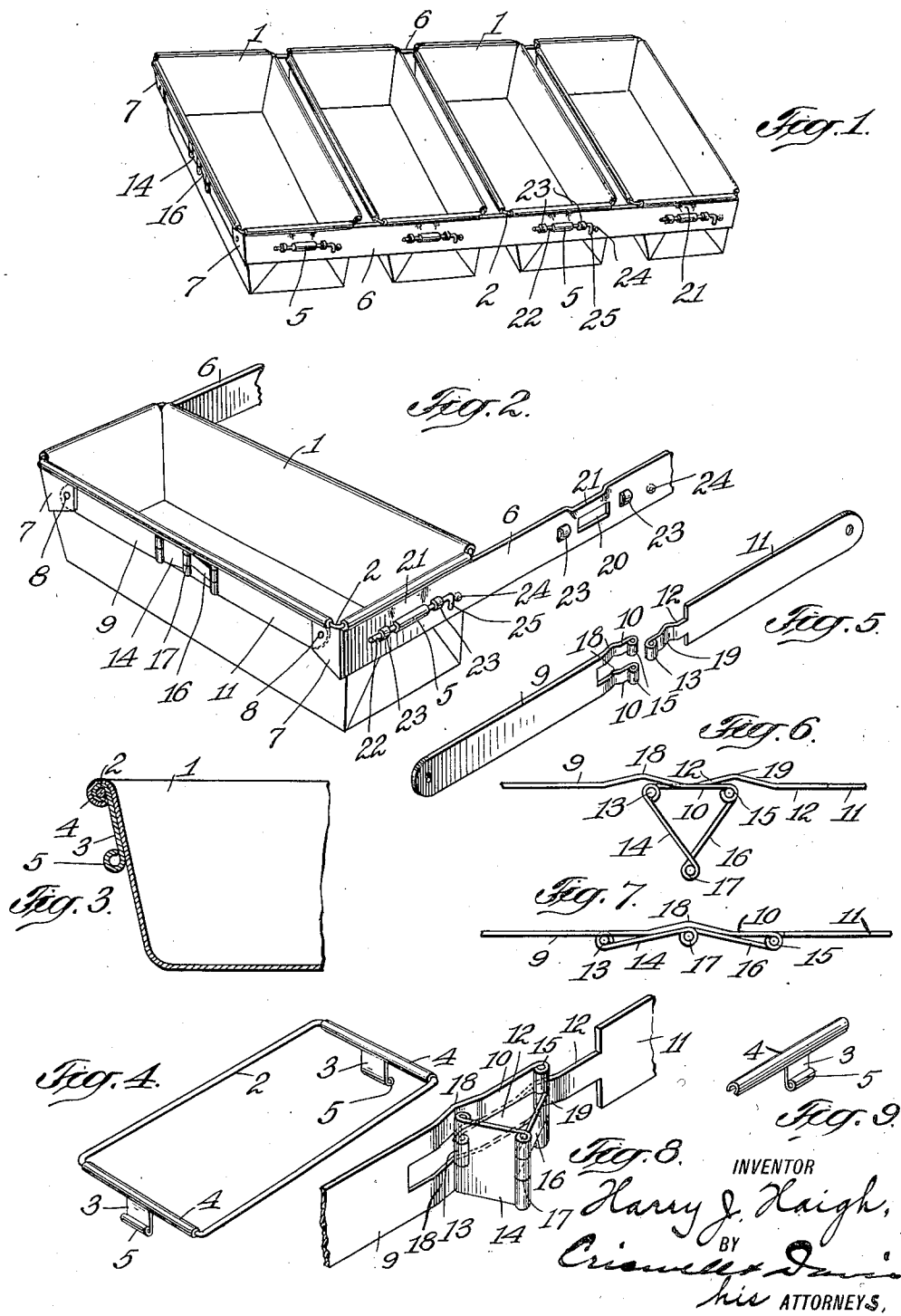


BAKING PAN.

1,290,982.

2 SHEETS—SHEET 1.

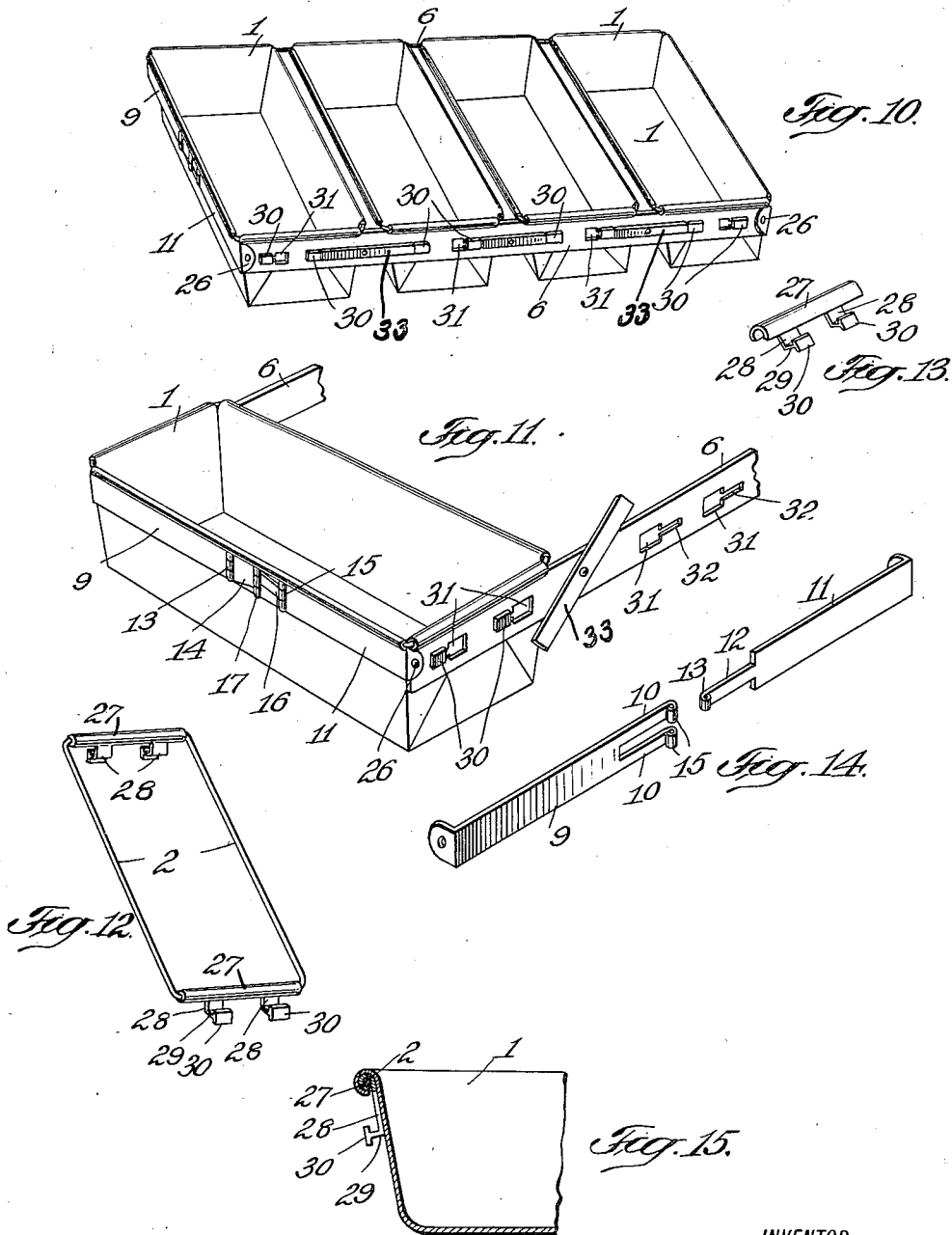


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BAKING PAN.
APPLICATION FILED APR. 10, 1917.

1,290,982.

Patented Jan. 14, 1919.

2 SHEETS—SHEET 2.



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BAKING-PAN.

1,290,982.

Specification of Letters Patent.

Patented Jan. 14, 1919.

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To all whom it may concern:

Be it known that I, HARRY J. HAIGH, a citizen of the United States, and a resident of Stapleton, Staten Island, borough and county of Richmond, and State of New York, have invented certain new and useful Improvements in Baking-Pans, of which the following is a specification.

This invention relates to that class of baking pans, largely employed in bakeries, in which a plurality of individual pans are connected together to form a multiple baking pan.

The principal object of the present invention is to provide means for detachably connecting the pans together, whereby a damaged pan may be removed from the set and a new pan substituted, or the relative positions of the pans of a set changed to present a different pan or pan surface at the point or points of greatest wear.

Another object of the invention is to provide a rigid holding frame to which the individual pans may be rigidly secured, and held against relative movement, without the employment of rivets or other fastening devices exposed at the inner surface of the pans.

A further object of the invention is the provision of a connecting frame and means connected with the pans adapted to be rigidly interlocked with the frame to hold the pans to the frame and in proper position relatively to each other.

Another object of the invention is to provide a connecting frame adapted to be expanded to facilitate the removal and insertion of the pans.

Another object of the invention is to provide individual pans having permanently secured thereto means adapted to be detachably and interchangeably connected with a standard type of connecting frame for rigidly securing a plurality of pans together.

In the accompanying drawings, Figure 1 is a perspective view showing one form of multiple pan embodying the invention;

Fig. 2 a detail perspective view showing one end pan and one end of the connecting frame;

Fig. 3 a fragmentary central longitudinal

sectional view of one of the pans, showing the manner of permanently fastening the holding lugs to the end walls of the pan;

Fig. 4 a detail view showing one of the wire reinforcing frames for the upper edges of the individual pans, with the holding lugs secured thereto;

Fig. 5 a detail view showing the divided end strap or member of the frame with the hinge or expanding device removed;

Fig. 6 a detail plan view showing the position of the parts when the end strap is extended;

Fig. 7 a detail plan view showing the position of the parts when the end strap is contracted;

Fig. 8 a detail perspective view showing the divided end strap extended;

Fig. 9 a detail perspective view of one of the locking lugs which are permanently fastened to the ends of the pans;

Fig. 10 a view similar to Fig. 1 showing a modified form of multiple pan;

Fig. 11 a view similar to Fig. 2 of the form of pan and frame shown in Fig. 10;

Fig. 12 a view similar to Fig. 4 showing the form of locking device employed in a pan constructed as shown in Fig. 10;

Fig. 13 a detail view of one of the locking lugs or devices secured to the ends of the pans shown in Fig. 10;

Fig. 14 a view similar to Fig. 5 showing a slightly modified form of divided end strap; and

Fig. 15 a fragmentary central longitudinal section of one of the pans shown in Fig. 10.

Referring to the drawings by numerals, 1 designates the individual pans which may be constructed in any suitable manner. A rectangular wire reinforcing frame or member 2 extends around the upper edge of each pan and is preferably held thereto by bending or rolling the upper edges of the side and end walls of the pan outwardly and downwardly around the frame 2, as shown. A locking lug or member 3 is rigidly secured to each end wall of each of the pans 1 in any suitable manner. I prefer to form the lugs 3 with elongated upper portions 4 and to bend the portion 4 outwardly and downwardly around the end portions of the wire reinforcing frames 2 before the end

walls of the pans 1 are bent around said end portions, as shown more clearly in Figs. 3 and 4. The portions 4 of the lugs 3 are preferably of substantially the same length as the end portions of the frames 2, as shown in Fig. 4, to hold the lugs 3 against relative lateral movement. At their lower ends the lugs 3 are bent outwardly upwardly and inwardly to form outwardly projecting horizontally extending tubular portions or eyes 5.

The pans 1 are rigidly held together, preferably in spaced relation, as shown, within a rectangular connecting frame comprising side bars 6 and divided and extensible end bars. The end bars are riveted to inwardly bent ends 7 of the side bars 6, as shown at 8, but it will be obvious that the end bars may be formed integrally with the side bars if desired. The end bars of the frame may be dispensed with, if desired, and the pans held together, solely by the side bars 6.

The extensible end bars of the connecting frame are preferably formed of a member or bar 9 having a bifurcated inner end, as shown at 10, and a member or bar 11 having a reduced extension 12 adapted to slide longitudinally within the bifurcated end 10 of the bar 9, as shown in Figs. 5 to 8. The inner end of the extension 12 on bar 11 is hinged at 13 to a plate 14, and the inner ends of the arms or extensions 10 on bar 9 are hinged at 15 to a plate 16. The plates 14 and 16 are hinged together at their inner ends as shown at 17. The extensions 10 and 12 are preferably bent or depressed inwardly as shown at 18 and 19. When the hinged plates 14 and 16 are swung inwardly toward the side walls of the end pans, as shown in Figs. 2 and 7, it will be seen that the bars 9 and 11 will be pulled toward each other, the extension 12 moving between the extensions 10 until the depressions 18 and 19 are in alinement, whereupon the hinge pintle 17 connecting the plates 14 and 16 may be forced inwardly past center, as shown in Fig. 7, into the registering depressions 18 and 19. The bars 9 and 11 are thus locked in contracted position and the side bars 6 are moved inwardly against the end walls of the pans and held thereagainst with the tubular ends 5 of lugs 3 projecting through apertures 20 in the side bars. At points above the apertures 20 the side bars 6 are preferably pressed outwardly as shown at 21, to form depressions or seats for the depending portions 3 of the locking lugs. By this arrangement the side bars may lie flush with the end walls of the pans.

Any suitable means may be provided for positively and detachably holding the side bars 6 against the end walls of the pan, if desired, to prevent separation of the pans in case hinge pintle 17 should be accidentally

swung outwardly past center. As shown in Figs. 1 and 2, this locking means comprises pins 22 passing through the tubular projections 5 on the lugs 3 and through eyes 23 stamped or otherwise formed on the side bars 6 at each side of the apertures 20. The side bars 6 are preferably formed with projections 24 for holding the pins in locking position, the heads 25 of the pins being adapted to be forced over the projections 24 and engage behind the same when the pins are inserted through the eyes 23 and the tubular extensions 5 on the lugs 3.

In the embodiment of the invention shown in Figs. 10 to 15, the pans 1 are provided with wire reinforcing frames 2 preferably secured thereto in the manner heretofore described, and the pans are held within an expansible connecting frame comprising side bars 6 and expansible end bars formed of members 9 and 11 connected together by hinged plates 14 and 16 in the same manner as the members 9 and 11 shown in Figs. 5 to 8, except that the depressions 18 and 19 in the extensions 10 and 12 are not shown, it being understood that said depressions may be employed or dispensed with in either embodiment of the invention. As shown in Figs. 10, 11 and 14, the end bars are formed with bent end portions riveted at 26 to the ends of the side bars 6, but the side and end bars may be connected as shown in Figs. 1 and 2, or integrally formed, if preferred.

A fastening device is permanently held to the end walls of each pan and comprises a portion 27 bent outwardly and downwardly around the end portions of the reinforcing wire frames 2, as shown in Figs. 12 and 15, and formed with a pair of spaced depending lugs 28 having outwardly projecting portions 29 formed with enlarged heads 30. The side bars 6 are formed with two apertures opposite the end of each pan having enlarged portions 31 through which the heads 30 of the lugs 28 are adapted to pass and reduced portions 32 adapted to receive the projecting portions 29 of the lugs 28 when the pans are moved laterally in the frame to lock the pans to the frame.

To prevent shifting and accidental detachment of the pans, bars 33 are pivoted intermediate their ends on the side bars 6. It will be seen that when the bars 33 are swung to horizontal position, the opposite ends of the bars engage between heads 30 on lugs on adjacent pans and prevent lateral movement of the pans. It will be observed that the arrangement of the large and reduced portions of the apertures opposite the end pan at the left in Figs. 10 and 11, is the reverse of that of the other apertures in order that when the end pan at the left is shifted laterally to locked position it will

be moved closely against the adjacent end bar of the connecting frame. The end bars, or the expansible joints connecting the divided end bars, may be dispensed with, if desired, and the pans held together by the side bars 6 only.

From the foregoing it will be seen that simple means has been provided for rigidly connecting together a plurality of baking pans in such a manner that any pan of a set may be removed and a new pan substituted therefor, or the relative positions of the pans altered. By this arrangement the period of usefulness of a multiple baking pan may be greatly prolonged by placing worn pans at a point where they will be subjected to less wear and strain, and by substituting new pans for worn or damaged pans.

What I claim is:—

1. A knockdown multiple baking pan comprising a series of individual pans arranged side by side in a single row and spaced apart to provide unobstructed heat-circulating passages between the pans, and means for holding the pans in spaced relation and against relative vertical and endwise movement embodying lugs permanently held to the exteriors of the end walls of the pans and each having a part thereof projecting outwardly from the adjacent pan wall, a pair of connecting bars extending along the end walls of the series of pans and formed with apertures, and means for detachably holding said bars against the end walls of the pans with the projecting parts of said lugs engaged in said apertures.

2. An interchangeable pan unit for a knockdown multiple baking pan, comprising a rectangular metal pan provided with a reinforcing wire extending about the upper edges thereof and rigidly held to the exterior of the pan, and depending lugs rigidly held at their upper ends to said reinforcing wire at opposite ends of the pan and each having an outwardly projecting portion at its lower end adapted to be detachably interlocked with a pan-connecting member.

3. A knockdown multiple pan comprising a plurality of rectangular individual pans arranged side by side in a single row and spaced apart to provide unobstructed heat-circulating passages between the pans, a pair of rigid connecting members extending along the end walls of the pans at opposite sides of the row of pans and provided with spaced apertures, projecting devices rigidly held to the pans at opposite ends thereof adapted to extend through the apertures in said connecting members when said members are held against the end walls of the pans, and means detachably held to the projecting ends of said devices for releasably

holding said connecting members against the end walls of the row of pans in interlocked relation with said devices.

4. A knockdown multiple baking pan comprising a plurality of rectangular pans arranged side by side in a single row and each having a reinforcing wire extending about its upper edge and rigidly held to the exterior of the pan by outwardly and downwardly turned portions of the pan walls, a pair of rigid connecting members extending along the end walls of the row of pans, and means for detachably securing each of said members to the reinforcing wire of each pan to hold the pans against relative vertical and horizontal movement.

5. A multiple baking pan comprising a plurality of individual pans arranged side by side and having reinforcing wires extending about the upper edges thereof and held thereto, a pair of connecting members extending along the end walls of the pans at opposite sides of the series of pans and having apertures therein at points opposite the end walls of the pans, devices held at one end thereof to the reinforcing wires of each pan at opposite ends of the pan and having a portion thereof projecting outwardly from the pan and adapted to extend through one of the apertures in the adjacent connecting member, and means for holding the connecting members against the end walls of the pans with the projecting portions of said devices extending through the apertures in said members.

6. A knockdown multiple baking pan comprising a plurality of rectangular pans arranged side by side in a single row and each having a reinforcing wire extending about its upper edge and rigidly held to the exterior of the pan by outwardly and downwardly turned portions of the pan walls, a pair of rigid connecting members extending along the end walls of the pans at opposite sides of the row of pans and provided with spaced apertures, and devices rigidly held to the reinforcing wires at opposite ends of the pans having outwardly projecting portions extending through the apertures in said connecting members, and means for releasably holding said devices and connecting members in interlocked relation.

7. A multiple baking pan comprising a series of individual pans arranged side by side, lugs fixed to the opposite ends of the pans, bars extending along the end walls of the series of pans, interlocking separable connections between the bars and said lugs, and expansible means connecting the ends of said bars together at each end of the series of pans.

8. The combination of a series of pans arranged side by side in spaced relation, lugs

fixed to the end walls of the pans and projecting outwardly therefrom, bars extending along the end walls of the series of pans and formed with apertures opposite the end walls
 5 of the pans adapted to receive the projecting lugs on the pans, expansible means connecting the ends of said bars together for shifting the bars toward and from the end walls of the pans into and out of engagement with
 10 said lugs, and detachable means for locking the bars to said lugs.

9. The combination of a series of pans arranged side by side, lugs fixed to the end walls of said pans and projecting outwardly
 15 therefrom, bars extending along the end walls of the series of pans and formed with apertures adapted to receive said projecting lugs, expansible means connecting said bars together for shifting the bars into and out
 20 of engagement with said lugs, and means for locking said expansible connecting means in contracted position.

10. The combination of a series of rectangular pans arranged side by side in
 25 spaced relation, a wire reinforcing frame extending around the upper edges of each pan, the upper edges of the side walls of the pans being bent outwardly and downwardly around the side members of said frame, lugs
 30 fixed to the end members of each frame and having wide upper ends bent outwardly and downwardly around said end members and extending substantially throughout the length of the end members, each of said lugs
 35 having a portion projecting outwardly from the end wall of the pan, bars extending along the end walls of the pans of the series and provided with apertures adapted to receive the projecting portions of the lugs,
 40 and means for detachably locking said bars to the lugs.

11. A baking pan adapted for detachable connection with a holding frame, comprising a body portion, a wire reinforcing frame
 45 extending around the upper edge of said body portion, and lugs at opposite ends of the pan each having a part thereof bent around the wire reinforcing frame and a part projecting outwardly from the pan
 50 walls, the projecting part of each of said lugs being provided with means whereby said lugs may be detachably held to a holding frame, and the upper edges of said body portion being bent outwardly and down-
 55 wardly around the wire reinforcing frame.

12. A multiple baking pan comprising a plurality of individual pans arranged side by side and having reinforcing wires extending about the upper edges thereof and
 60 held thereto, a pair of connecting members extending along the end walls of the pans at opposite sides of the series of pans and having apertures therein at points opposite the end walls of the pans, devices held at one

end thereof to the reinforcing wires of each
 65 pan at opposite ends of the pan and having a portion thereof projecting outwardly from the pan and adapted to extend through one of the apertures in the adjacent connecting member, and locking keys extending through
 70 openings formed adjacent the outer ends of said devices and bearing against the outer sides of the connecting members to detachably hold said members against the end
 75 walls of the pans with said devices extending therethrough.

13. A multiple baking pan comprising a series of individual pans arranged side by side in spaced relation and having reinforcing wires extending about the upper edges
 80 thereof and held thereto, lugs fixed at their upper ends to the reinforcing wires at opposite ends of each pan and having outwardly projecting portions, a pair of bars extending along the ends of the pans at opposite sides
 85 of the series of pans, and means whereby said bars may be detachably interlocked with the projecting portions of said lugs to rigidly hold the pans against relative vertical and horizontal movement.
 90

14. A multiple pan comprising a series of rectangular individual pans arranged side by side in spaced relation and each having a reinforcing wire extending about the upper
 95 edge thereof and rigidly held thereto, straps at each end of each pan having their upper ends bent about the end portions of the reinforcing wires and their lower ends bent outwardly and curled to form a tube, a pair of
 100 flat connecting bars extending along the end walls of the pans with their upper edges engaging under the reinforcing wires and provided with apertures through which the outwardly bent lower ends of said straps extend,
 105 and locking pins extending through the tubes formed at the ends of said straps and bearing against the outer sides of said bars.

15. A baking pan comprising a rectangular body portion having an unbroken interior
 110 and a reinforcing wire extending about the upper edge of said body portion and rigidly held thereto, and straps lying against the exterior of the end walls of the body portion of the pan and having their upper
 115 ends bent about the reinforcing wire, the lower ends of said straps being bent outwardly and provided with means whereby said straps may be detachably interlocked with apertured connecting bars to adapt the
 120 pan to form a removable unit of a multiple pan.

16. A multiple pan comprising a series of rectangular individual pans arranged side
 125 by side in spaced relation and each having a reinforcing wire extending about the upper edge thereof and rigidly held thereto, straps at each end of each pan having their

upper ends bent about the end portions of the reinforcing wires and their lower ends bent outwardly and curled to form a tube, a pair of flat connecting bars extending
5 along the end walls of the pans with their upper edges engaging under the reinforcing wires and provided with apertures through which the outwardly bent lower ends of said straps extend, locking pins extending

through the tubes formed at the ends of said 10 straps and bearing against the outer sides of said bars, and means carried by the connecting bars adapted to prevent accidental withdrawal of the locking pins from the tubes.

This specification signed this ninth day of 15 April, A. D. 1917.

HARRY J. HAIGH.