June 12, 1923. 1,458,736

W. J. STEWART

DEMOUNTABLE POULTRY FEEDING BATTERY

Filed March 30, 1922 4 Sheets-Sheet 1

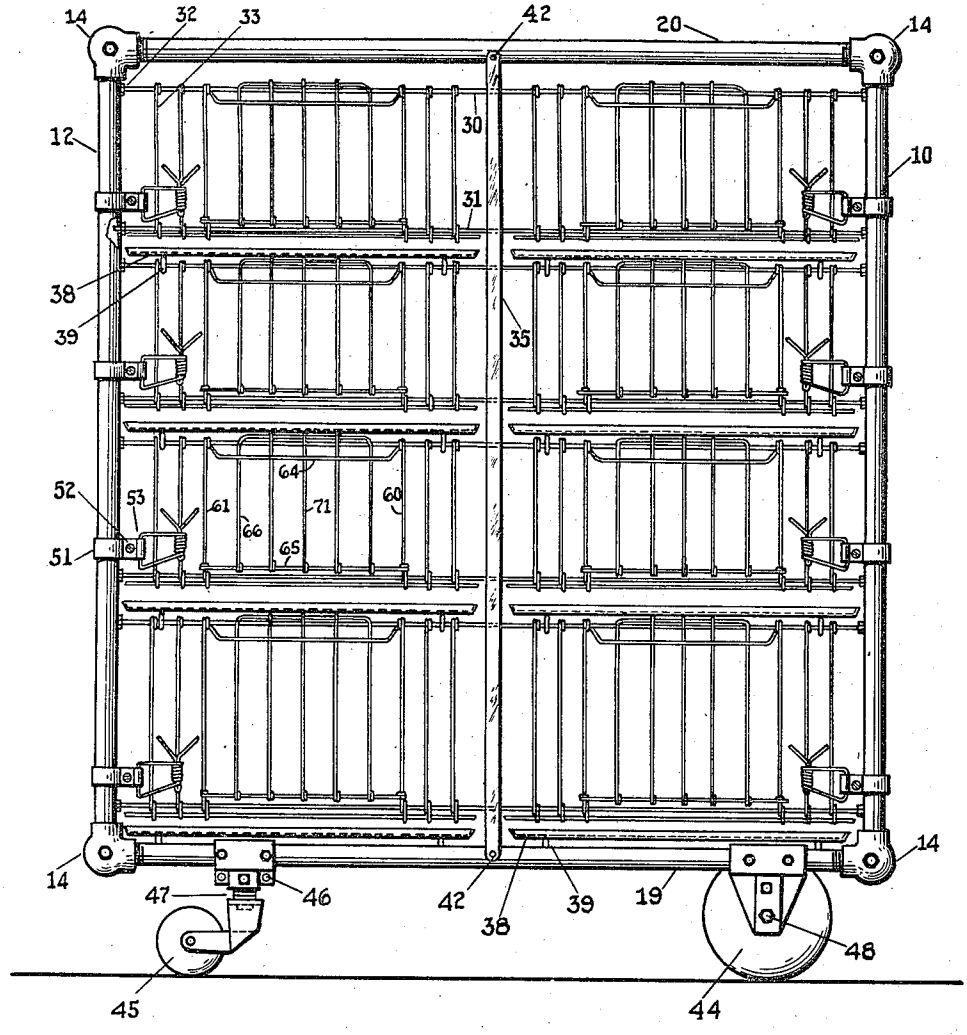


Fig. 1

William J. Stewart
Inventor,

By his Attorneys Dodson & Roe.

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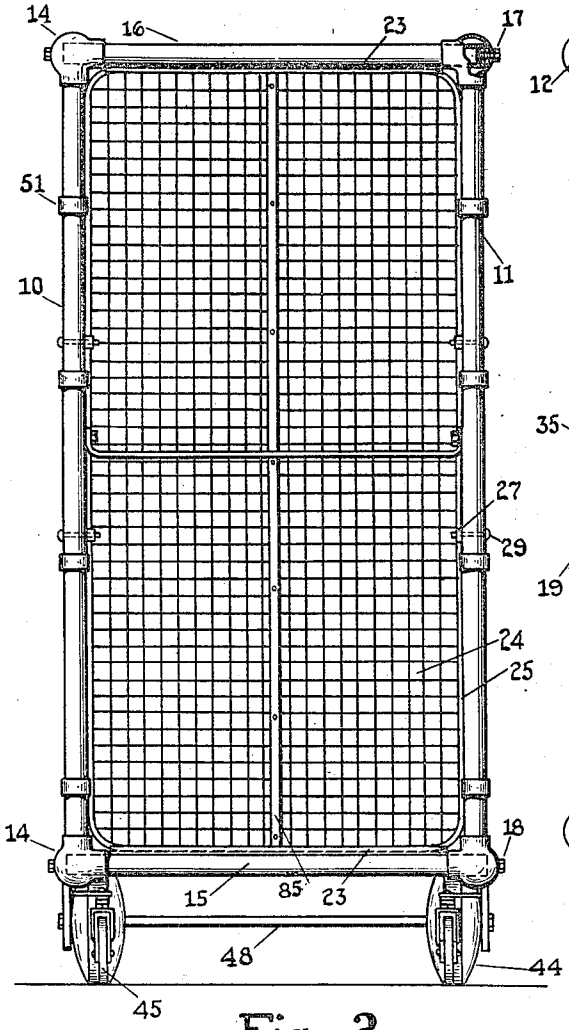


Fig. 2

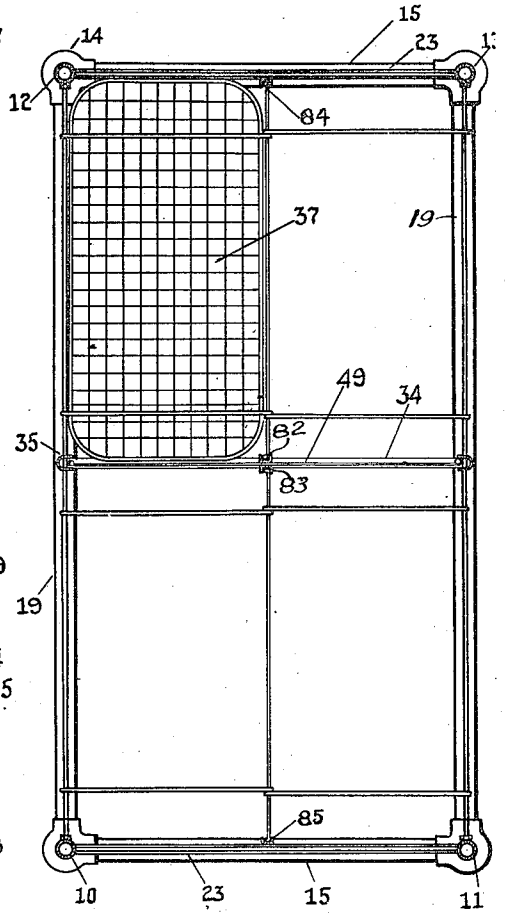


Fig. 3

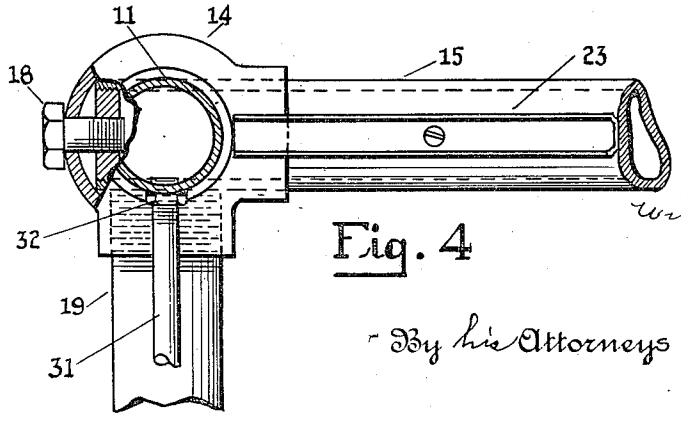


Fig. 4

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W. J. STEWART

DEMOUNTABLE POULTRY FEEDING BATTERY

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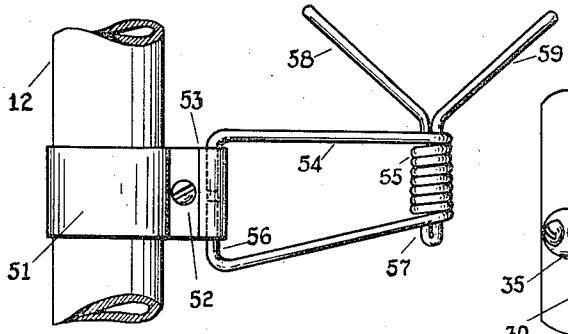


Fig. 5

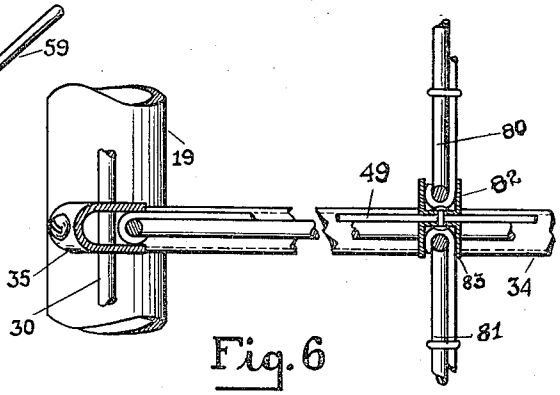


Fig. 6

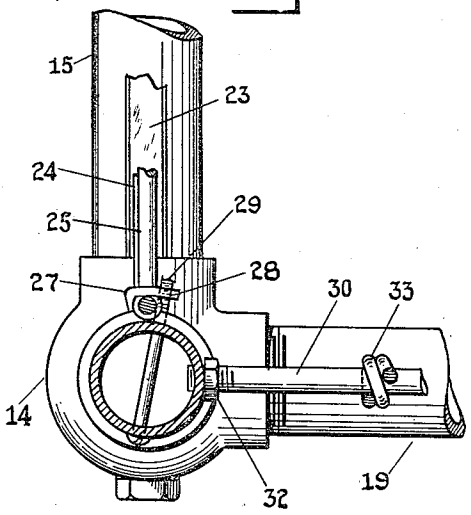


Fig. 7

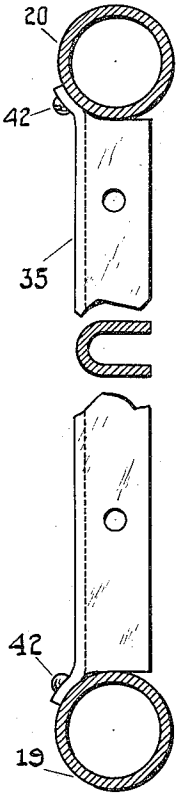


Fig. 8

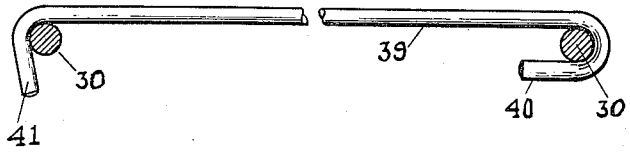


Fig. 9

William J. Stewart,
Inventor,
By his Attorneys Dodson & Roe.

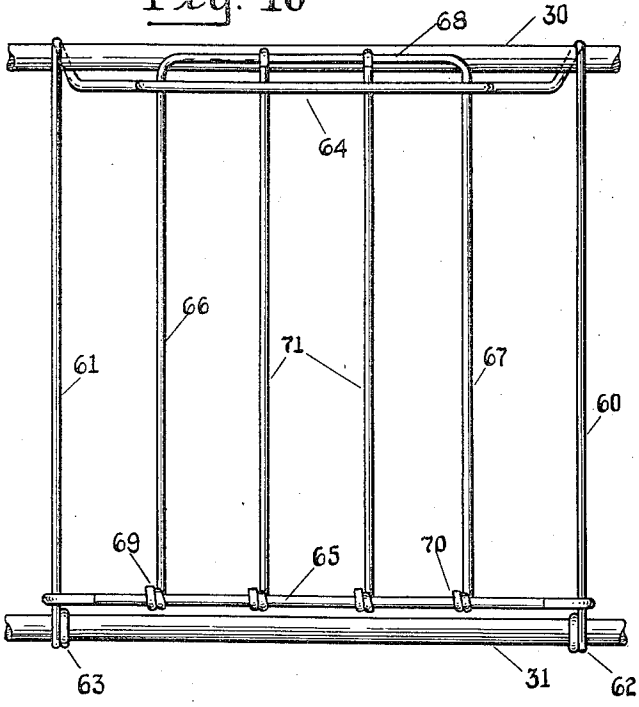
June 12, 1923. 1,458,736

W. J. STEWART

DEMOUNTABLE POULTRY FEEDING BATTERY

Filed March 30, 1922 4 Sheets-Sheet 4

Fig. 10



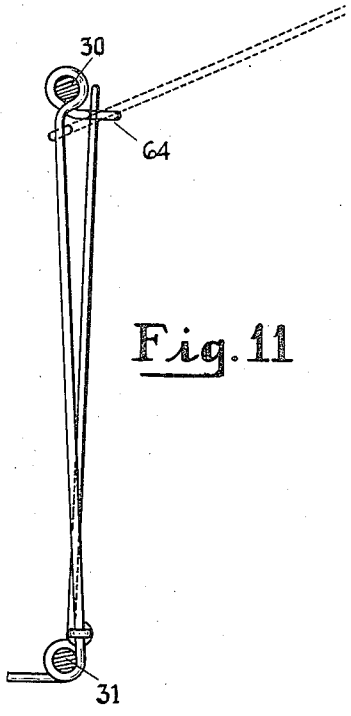
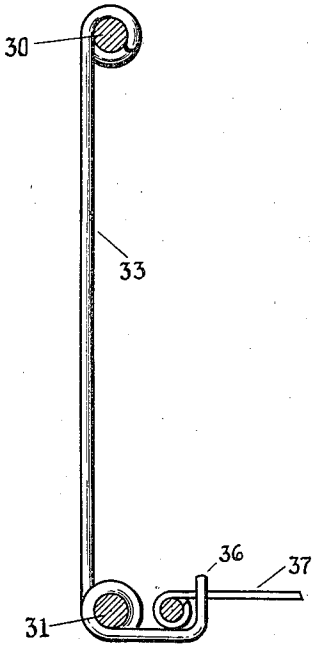


Fig. 11

Fig. 12



William J. Stewart
Inventor,

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Patented June 12, 1923. 1,458,736

UNITED STATES PATENT OFFICE.

WILLIAM J. STEWART, OF CLINTON, IOWA.

DEMOUNTABLE POULTRY-FEEDING BATTERY.

Application filed March 30, 1922. Serial No. 548,181.

To all whom it may concern:

Be it known that I, WILLIAM J. STEWART, a citizen of the United States, residing in Clinton, county of Clinton, and State of Iowa, have invented a certain new and useful Improvement in Demountable Poultry-Feeding Batteries, of which the following is a specification.

My invention relates to that class of devices which are designed for shipping poultry and has for its primary object to provide a device which can be quickly and easily demounted with the result that it can be shipped inexpensively. Devices of this character with which I am familiar are so constructed so that they cannot be demounted, with the result that they are given the highest rate for shipping, thus making them prohibitive to customers living at a distance remote from the point of manufacture.

In my improvement I provide a device which can be demounted and hence shipped at the lowest rate and in which a single car will contain many times the number of batteries which it is possible to ship where they are not demountable.

Another objectionable feature of the present battery is that the gates are generally formed by spot welding and machine screw connections with the result that they jar loose and permit the poultry to escape very frequently, besides forming places for the collection of dirt, etc. In my battery I provide a gate which does not use any spot welding or any bolts of any description and which consequently cannot get out of order.

Another object of my construction is to provide a battery in which easy and convenient access can be had for the purpose of cleaning the same and to eliminate all corners in which dirt and refuse can collect, thus producing a very sanitary type of construction.

Other objects will appear in the hereinafter contained claims and description.

My means of accomplishing the foregoing object may be more readily understood by having reference to the accompanying drawings which are hereunto annexed and are a part of the specification which—

Fig. 1 is a side elevation of my improved poultry feeding battery.

Fig. 2 is an end view of the same.

Fig. 3 is a vertical sectional view of the battery.

Fig. 4 is a fragmentary detail of the corner of the device showing the means of securing the frame together.

Fig. 5 is an enlarged detail view of the adjustable feeding trough support.

Fig. 6 is an enlarged fragmentary detail view of one of the channels for holding the central partition.

Fig. 7 is a fragmentary detail view of the corner showing the retaining clamp for the ends of the battery.

Fig. 8 is a detail view of the central channel.

Fig. 9 is an enlarged detail view of the wire support for the drop pans.

Figs. 10 and 11 are detail views of the gate.

Fig. 12 is a detail view of upright spacing rod and floor support.

Similar reference numerals refer to similar parts throughout the entire description.

As shown in the drawings the battery comprises four corner uprights 10, 11, 12 and 13. These uprights are provided with three-way elbows 14 which are mounted at the upper and lower corners of the battery. The end uprights 10 and 11 and 12 and 13 respectively are connected together by means of cross-connecting pipes 15 and 16 which are plugged and tapped to receive draw bolts 17 and 18 for connecting the end uprights 10, 11, 12 and 13. The side uprights 10 and 12 and 11 and 13 respectively are connected by means of side-connecting pipes 19 and 20 which are screwed into the elbows 14 at the corner. Upon each of the cross-connecting pipes 15 and 16 are mounted channels 23 clearly seen in Fig. 4. The end frames 24 are formed of wire mesh which is secured to an outer frame 25 which has rounded corners and mounted in the channels 23 and held in place by retaining clamps which comprise a hooked lug 27 adapted to

engage the sides of the frame 25 and which is provided with a threaded aperture 28 adapted to receive a bolt 29 which extends through the corner uprights so that the frame 25 can be securely held in place. The sides of the battery are formed of a plurality of sections which comprise an upper and lower carry rod 30 and 31. The ends of these rods enter openings formed in the uprights and the rods are provided with nuts 32 which when tightened against the apertures serve to lock the carry rods in position. These carry rods are spaced by means of upright spacing wires 33, the ends of which are wound one and one-half times around the rod 30 and one and one-half times around the rod 31 and in some cases it may be found desirable to extend the ends of these rods inwardly forming hooks 36 for supporting the shelf or floor of the sections. A central partition 49 which is formed in the same manner as the end partitions is mounted in the center of the battery and is held in position by upper and lower channels 34 which are secured to the side-connecting pipes 19 and 20, the sides of the central partition being supported by means of two upright channels 35 which are held in position by means of bolts 42. It may be found desirable in practice to provide longitudinal partitions 80 and 81 clearly seen in Fig. 6, they being supported in channels 82 and 83 secured to the central partition 49 similar channels 84 and 85 being secured to the end frames 24. This construction serves to hold the central partition rigidly in position. The sections are provided with floors 37 which are carried by suitable lugs and are formed of a metal frame having rounded corners covered with wire mesh. The floor sections 37 loosely rest upon the hooks 36 formed on the ends of the spacing wires or other supports may be furnished if desired. A plurality of droppings pans 38 are mounted beneath each of the said floor sections and are carried by detachable supports 39. These supports are provided with a loop 40 at one end which is adapted to pass around one of the carry rods 30 and swing thereon. The other end of the support 39 is provided with hook 41 which is bent inwardly so as to snap over the opposite carry rod 30, thus extending from the front to the rear of the battery. The top of the battery is formed of a frame provided with wire mesh and is held in position in the same manner as the end sections resting upon the central portion. The frame is mounted upon a pair of wheels 44 mounted at one end of the battery and a pair of swiveled wheels 45 mounted adjacent the other end of the battery. These wheels are carried by brackets 46 which are bolted to the side-connecting pipes 19 and are provided with thrust bearings 47. The rear wheels 44 are mounted upon an axle 48 which is mounted in brackets 50 which are bolted to the cross-connecting pipes 19. Preferably they are all mounted upon anti-friction bearings.

My means of providing for supporting the adjustable feed troughs which are extremely desirable from the user's standpoint by reason of the fact that they can be adjusted to provide for the different sizes of poultry, comprise a plurality of clamps 51 which are bolted upon the uprights 10—11—12—13 at the desired elevation. These clamps are detachable, being secured in place by means of screws or bolts 52. They are provided with a vertical bearing 53 in which is mounted a swinging bracket 54 which is formed of wire having a plurality of coils 55 at its outer end and inwardly extending portions 56 which are adapted to enter the vertical bearing 53, thus permitting the bracket 54 to swing freely about the clamp 51. A wire crotch 57 is mounted in the coils 55, its upper arms 58 and 59 serving to support the feed troughs (not shown). To erect the battery the assembly man will take the cross-connecting pipes 15 and 16 which are plugged and tapped to receive the draw bolts 17 and 18 and insert each of the ends of these pipes into the openings in the elbows and then start the bolts 17 and 18 to hold the cross-connecting pipes temporarily. Before these bolts are drawn up tight the central wire partition is placed between the channels 35. The bolts 17 and 18 are then drawn up tightly and the battery comes up square and no other alignment is required. The bolts 42 are then tightened up holding the central channel firmly in position. The end sections 24 are then placed in the lower channel 23 and the section is sprung so as to enter the channel at the top. The bolts 29 are then tightened up so as to cause the lugs 27 to engage the sides of the frame 25 and it is held tightly in position. The top frame is also sprung in position in the same way thus making the battery complete. It will be apparent from the foregoing description that it is easily possible to mount or demount the battery and consequently it may be shipped in a very small space, yet I have been able to provide an extremely sanitary construction by eliminating all corners in which refuse can collect and make the removal of the droppings pans for cleaning very convenient. The battery should then be raised from the floor and the wheels placed beneath so as to bolt them to the brackets on the side-connecting pipes 19. The drop pan supports are then hooked around the carry rods 30 at one side of the battery and the hook 41 snapped over the carry rod at the opposite side. The drop pans are placed in position and the floor sections 37 are placed on the hooks or other supports 36.

One of the important features of my battery is the improved construction which I provide for the gate which is formed by means of a guide and stay formed of a single piece of wire provided with two upright portions 60 and 61, the ends 62 and 63 being wrapped one and one-half times around the carry rod 31 and forming one of the upright spacing members. The upper end of the rods 60 and 61 is wrapped around the carry rod 30 and bent downwardly and outwardly as clearly seen in the drawings forming a shelf 64, the purpose of which will be hereinafter explained. The gate proper is formed with a lower member 65, the ends of which are looped around the guide and gate stay members 60 and 61 and slidable vertically thereon. A piece of wire is then formed in inverted U-shape having upright portions 66 and 67 and a horizontal portion 68. The ends 69 and 70 of the upright portions 66 and 67 are wrapped one and one-half times around the lower member 65. Uprights 71 are then mounted upon the lower member 65 being wrapped one and one-half times around it and provided with hooked portions at their other end which are adapted to engage the horizontal portion 68 of the gate proper. When it is desired to open the gate it is moved upwardly sliding upon the guide and gate stays 60 and 61 until the lower member 65 reaches the shelf 64 when the gate will drop outwardly, being prevented from dropping too far by the carry rod 30 and supported upon the shelf 64. This serves to hold it open without the least danger of its accidentally closing, but the moment that it is placed in an upright position it automatically drops down and closes the opening formed by its having been raised. It will be apparent from the foregoing description that I have absolutely eliminated the use of stove bolts or spot welding at the same time by winding the spacing rods in the gate one and one-half times and forming the gate and stay of a single piece that I have a flexible gate and still an extremely durable one.

Having described my invention what I regard as new and desire to secure by Letters Patent is:

1. In a poultry battery a plurality of corner uprights, means to detachably connect said uprights at their ends, channels on said connectors, end frames of wire mesh locked in said channels, means passing through the uprights to secure said end frames, a plurality of sections which form the sides, said sections comprising an upper and lower rod the ends of which enter openings formed in the uprights, nuts on said rods which abut said uprights, a central partition, two channeled uprights in which the sides of the central partition are held, upper and lower channels for said central partition secured to the side connections, bolts which hold said channels in place.

2. In a poultry battery a plurality of corner uprights, means to detachably connect said uprights at their ends, channels on said connectors, end frames of wire mesh locked in said channels, means passing through the uprights to secure said end frames, a plurality of sections which form the sides, said sections comprising an upper and lower rod the ends of which enter openings formed in the uprights, nuts on said rods which abut said uprights, a central partition, two channeled uprights in which the sides of the central partition are held, upper and lower channels for said central partition secured to the side connections, bolts which hold said channels in place, a plurality of upright spacing wires the ends of which are passed one and one-half times around the upper rod and one and one-half times around the lower rod the end of said wire at the bottom extending inwardly and terminating in a hook.

3. In a poultry battery a plurality of corner uprights, means to detachably connect said uprights at their ends, channels on said connectors, end frames of wire mesh locked in said channels, means passing through the uprights to secure said end frames, a plurality of sections which form the sides, said sections comprising an upper and lower rod the ends of which enter openings formed in the uprights, nuts on said rods which abut said uprights, a central partition, two channeled uprights in which the sides of the central partition are held, upper and lower channels for said central partition secured to the side connections, bolts which hold said channels in place, a plurality of upright spacing wires the ends of which are passed one and one-half times around the upper rod and one and one-half times around the lower rod.

4. In a poultry battery a plurality of corner uprights, means to detachably connect said uprights at their ends, channels on said connectors, end frames of wire mesh locked in said channels, means passing through the uprights to secure said end frames, a plurality of sections which form the sides, said sections comprising an upper and lower rod the ends of which enter openings formed in the uprights, nuts on said rods which abut said uprights, a central partition, two channeled uprights in which the sides of the central partition are held, upper and lower channels for said central partition secured to the side connections, bolts which hold said channels in place, a plurality of floor sections formed of a metal frame having rounded corners and wire mesh covering said frame, said sections being loosely supported in position, a

plurality of droppings pans beneath said sections, detachable supports therefor which supports have a loop at one end adapted to pass around one of the upper rods, the other end terminating in a hook adapted to snap over the upper rod on the opposite side.

5. In a poultry battery a gate formed of an inverted U, a horizontal member, the lower ends of the U being wrapped one and one-half times around said horizontal member, a plurality of uprights, one end of which is detachably secured to the top of the U, the other being wrapped one and one-half times around the horizontal member, a gate stay and guide, the lower end being fixedly secured in position, the upper end being bent outwardly forming a shelf.

In testimony whereof I have signed the foregoing specification.

WILLIAM J. STEWART.