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POULTRY RACK.

APPLICATION FILED SEPT. 29, 1914.

1,222,072.

Patented Apr. 10, 1917.

2 SHEETS—SHEET 1.

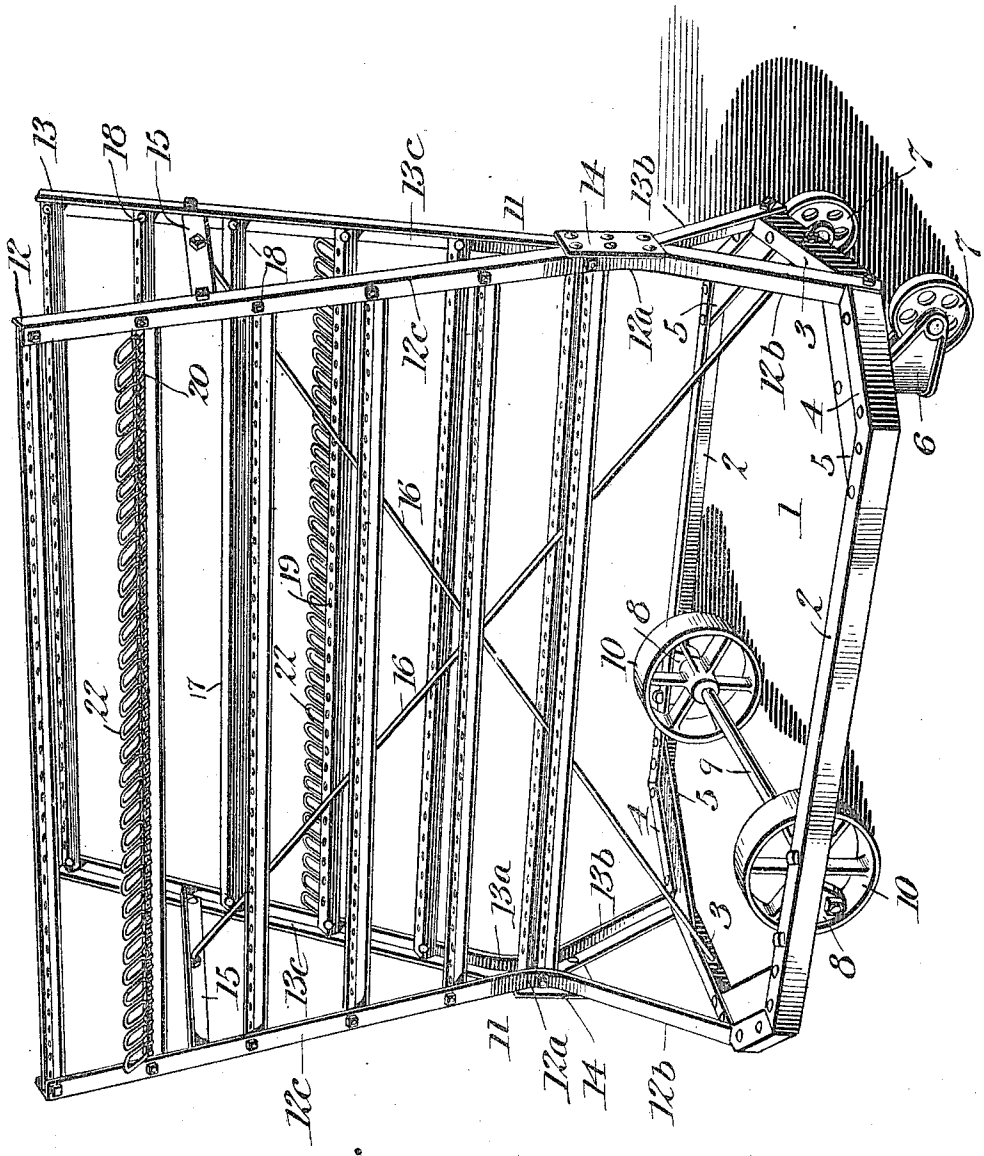


Fig. 1.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

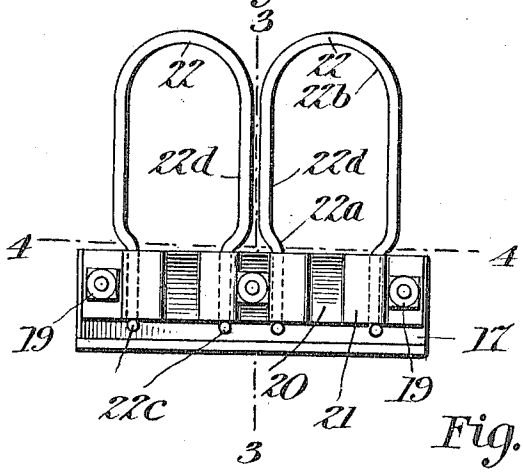


Fig. 3.

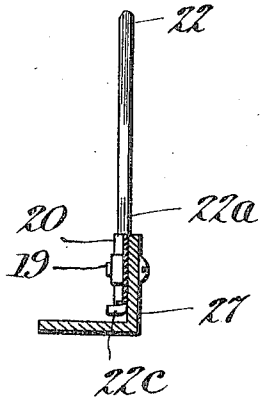


Fig. 4.

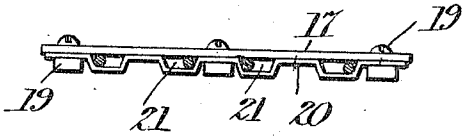
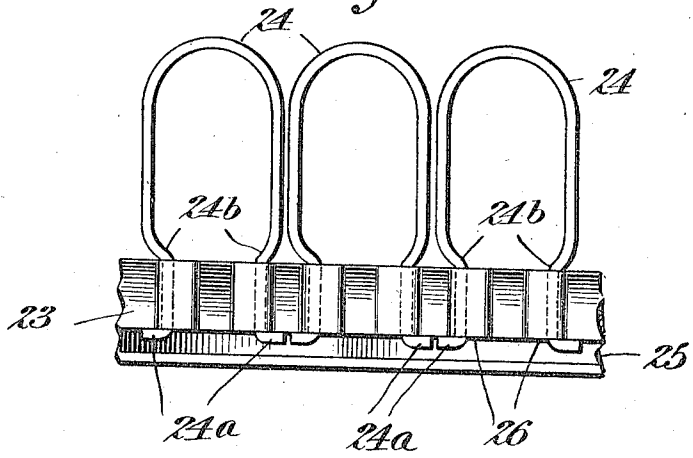


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE COLLIS, OF CLINTON, IOWA; FLORENCE MARY COLLIS, EXECUTRIX OF SAID GEORGE COLLIS, DECEASED, ASSIGNOR TO THE COLLIS COMPANY, OF CLINTON, IOWA, A CORPORATION OF IOWA.

POULTRY-RACK.

1,222,072. Specification of Letters Patent. Patented Apr. 10, 1917.

Application filed September 29, 1914. Serial No. 864,116.

To all whom it may concern:

Be it known that I, GEORGE COLLIS, a citizen of the United States, residing at Clinton, in the county of Clinton and State of Iowa, have invented certain new and useful Improvements in Poultry-Racks, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to poultry racks and more especially to racks mounted on a wheeled base by which the entire structure with the poultry carried thereby may be shifted or transported from one place to another.

It has heretofore been proposed to provide a cooling rack, for sustaining chickens after being killed, which includes the following elements, to-wit: a base mounted on wheels and having V-shaped upright supports rigidly secured to the base; also a plurality of parallelepiped bars provided with openings in the sides thereof; a series of T-shaped slidable sleeves adjustably arranged on said V-shaped supports and provided with projections adapted to enter and support said bars; a row of spring steel wire fingers having pointed ends and extending horizontally from said bars; and clamps for entering the openings in the bars and rigidly securing the fingers thereto. In practice, this proposed structure has been found to possess certain objectionable features; it is weak at weight-bearing portions; it seriously injures and damages the chickens' legs; and it is easily damaged in use and not capable of being readily repaired.

It is the primary object of my invention, therefore, to provide a structure of the kind specified in which these objections are overcome.

A feature of my invention is that it contemplates, among other things, a strong and rigid structure capable of sustaining the required weights, and including easily replaceable parts in the event any of such parts become broken or damaged.

Another object within the contemplation of the invention is to provide the base with two relatively small wheels or rollers at its front end and, somewhat to the rear of its center, a pair of relatively large wheels. By this arrangement, the truck may be moved around more easily.

Still another object is, in lieu of constructing the base with four square corners—requiring comparatively long pieces of angle iron to form the sides and ends—to bevel the corners and, thus, make the sides and ends of pieces of material of relatively reduced length.

This invention in general seeks to provide a supporting truck which is particularly suited as a poultry cooling rack upon which chickens are hung after being killed and while cooling. This structure, from an operative standpoint, possesses, in practical use, a high degree of strength and durability and, from a structural standpoint, is of great simplicity.

Other objects and advantages will in part be apparent from the annexed drawings and, in part, will be pointed out in the following description.

The invention resides broadly in the novel features of construction, in the general and specific combination of parts, and in the correlative aggroupment of such parts, all as are exemplified in the constructions hereinafter set forth, and the scope of application of which is indicated in the claims hereto appended.

In order that the invention may be readily comprehended by those skilled in the art, drawings illustrating some of the many possible embodiments and utilizations of the same are appended hereto as a part of this disclosure; it being manifest, however, that other possible embodiments and utilizations (employing the underlying principles of my invention) fall within the spirit thereof and within the objects contemplated thereby.

In these drawings:

Figure 1 is a view in perspective of a traveling poultry rack constructed in accordance with one embodiment of my invention;

Fig. 2 is a fragmentary view, in elevation, of a pair of the leg-holding loop-elements and of the sustaining bar to which they are removably attached;

Fig. 3 is a view in vertical section, on the line 3—3, Fig. 2;

Fig. 4 is a view in horizontal section, on the line 4—4, Fig. 2; and Fig. 5 is a view similar to Fig. 2 of a modified form of structure.

Referring to the drawings, and to the embodiment illustrated, by way of example, in Figs. 1 to 4, it will be noted that the refer-

ence-character 1 designates, generally, a wheeled base or truck which, in this instance, is shown as comprising side-bars 2, end-bars 3, and corner-bars 4, the latter being arranged at an angle to the side and end-bars to present beveled surfaces. These corner-pieces are reinforced by plates 5 bolted or otherwise secured to the side, end and corner-bars. The bars themselves are preferably and as shown constructed of angle-iron as this affords the required strength and rigidity to the structure.

Journaled in the reinforcing plates at the front end of the base are brackets 6 in which are mounted rollers or wheels 7. The brackets are adapted to turn in their bearings to permit steering of the base.

Mounted on the side-bars of the base and somewhat to the middle portion thereof are pendent brackets 8 and, in these, is journaled an axle 9 which carries relatively large wheels 10, as shown. This arrangement and relatively-different dimensions of wheels provide a truck capable of sustaining great weight and adapted to be readily moved about and without danger of being overbalanced, no matter how it may be loaded.

Upstanding from this base is an approximately X-shaped supporting structure marked, generally, 11. This, preferably and as shown, comprises a pair of angle-iron elements 12 and 13, at each end of the base, and bent intermediate their ends to present engaging portions 12^a and 13^a, respectively; lower outstanding portions 12^b and 13^b, respectively; and upper outspreading portions 12^c and 13^c, respectively. At the abutting portions 12^a and 12^b is secured a joining plate 14. Between the upper outspreading portions 12^c, 13^c, is secured a spacing-bar 15. Extending from each of these plates and secured at their lower ends to the end-bars 3 are two brace-rods 16 which cross about centrally of the structure. Each pair of the lower outspreading portions 12^b and 13^b is secured to the front and rear ends, preferably at their juncture with the corner-pieces 4.

Extending between and secured to the aforementioned portions of the supporting-structure 11 is a plurality of loop-sustaining bars 17, preferably arranged in parallelism and constructed of angle-iron. The edges of the two angulated portions of these angle-iron bars abut against the portions of the angle-iron elements 12 and lie parallel to the side-bars 2 of the truck or base. Bolts 18 extend through the corners of these angle-iron bars, as shown, and are secured to said elements 12. By this particular feature, I form the bolt-holes at the point of greatest strength of the angle-iron.

Secured, as by bolts 19, to each of these loop-sustaining bars are clamping-plates 20. Each of these plates is provided with a series of elongated, preferably rectangular recesses or loop-holding portions 21, such recesses or portions being preferably and as shown, spaced apart and arranged in pairs to receive the offset-portions 22^a of loop-elements or instrumentalities 22. These loop-elements 22 are, by preference, constructed of wire of proper gage and more or less resilient. The elements are, as shown in Fig. 2 by way of example, each formed with a looped body-portion 22^b, with the aforementioned portion 22^a offset from said body-portion, and with angulated end-portions 22^c. The side-members 22^d of each proximate loop-element lie side-by-side and spaced to receive the legs of a chicken. The width of each of said recesses 21 is greater than the diametral dimension of the wire of the loop-element; hence, the offset portion of the loop-element is free to have a certain bodily shifting movement sidewise in said recess. By this arrangement, the side-members of the loop-elements spread apart when a chicken-leg is thrust therebetween; the resiliency of the metal tends to force said side-members back to normal position, wherefore the side-members of each proximate pair effect a clamping action on the chicken leg and, thus, they subserve, together, the function of a single device for holding the leg. Their resiliency also precludes injury to the leg.

The angulated end-portion of each loop-element extends at an angle to the plane of the side-members and also to the portion of the angle-iron to which the loop-elements are clamped. These angulated ends are of sufficient length to extend beyond the outer surface of the clamping-plate; hence, they prevent the loop-elements from being withdrawn from these recesses. In consequence, these loop-elements are interlocked with the sustaining-bars, though they are none the less capable of sidewise movement, as already explained.

In the event that one or more of the loop-elements become damaged or broken, it is only necessary to remove its clamping-plate, whereupon a new loop-element may be substituted.

In the embodiment just described, it is contemplated that the removal of a loop-element shall only be accomplished by the removal of its clamping-plate. It is, however, within the contemplation of my invention to secure the clamping-instrumentality—be it a plate, bar, or whatnot—permanently to its sustaining-bar and provide only one of these for a plurality of pairs of loop-elements; in other words, a single clamping-instrumentality would be common to a whole series of loop-elements. Such an embodiment is shown, by way of example, in Fig. 5. Therein, the clamp-instrumentality is shown

as an elongated bar 23 which is common to more than a single pair of loop-elements; that is, it embraces a series of juxtaposed loop-elements 24. In this instance, the bar 23 is welded or otherwise secured to the sustaining-bar 25. Moreover, its ends 24[a] are angulated but in a direction parallel to the portion of the angle-iron to which the clamping-instrumentality is welded. These ends normally engage the edges of the recessed portions of the clamping-instrumentality; but are not so large but that they may readily be withdrawn through the recesses 26 in which the offset portions 24[b] are normally seated. Therefore, when one of the loop-elements becomes broken or damaged, it is manually compressed sidewise so that the angular ends will pass through the recess, whereupon the whole loop-element is pulled out.

From the foregoing, it will be perceived that I have succeeded in devising a poultry cooling-rack which is well adapted to achieve the several objects and ends in view. The structure is simple and compact in form; it is exceedingly strong and rigid; and it overcomes the serious objections which practice has shown to exist in those of a somewhat similar type now on the market.

As many changes can be made in the above-described constructions and many widely different embodiments of the invention can be made without departing from the spirit thereof, it is intended that all matter contained in the foregoing description and shown in the accompanying drawings shall be interpreted as illustrative and not in any limiting sense.

Moreover, it is to be understood that the language employed in the following claims is intended to cover not only the specific features of the invention but the generic features thereof as well.

What I claim is:

1. As an article of manufacture, a leg-engaging member for poultry-racks comprising a looped body-portion, plate-engaging portions offset from said body-portion, angulated ends, a sustaining-structure therefor including a bar and removable clamping-plate thereon provided with a series of elongated, open-ended recesses adapted to receive the plate-engaging portions of the leg-engaging members, and bolt-and-nut devices for securing said plate to the sustaining-structure.

2. A rack-structure comprising a supporting-member, a clamping-plate secured thereto, said plate being provided with a plurality of spaced-apart open-ended recesses; and a plurality of holder-elements, each having arms in spaced relation, closed at one end and open at the other end; said arms being offset intermediate their ends, having angulated portions at their ends and secured between the angulated and offset portions in the recesses in the clamping-plate.

3. A rack-structure comprising a supporting-member, a clamping-plate secured thereto, said plate being provided with a plurality of spaced-apart open-ended recesses; and a plurality of holder-elements, each having arms in spaced relation, closed at one end and open at the other end; said arms being offset intermediate their ends, having angulated portions at their ends and secured between the angulated and offset portions in the recesses in the clamping-plate, the offset portions bearing against the edges of the recesses at one end thereof and the angulated portions bearing against the opposite edges.

4. A rack-structure comprising a support; a clamping member secured thereto; said clamping member having a plurality of offset portions which form with said support, when attached thereto, a series of open-ended recesses; and a series of holding-elements each having a resilient, looped, body portion at one end and arms in spaced relation open at the other end; said arms being offset intermediate their ends, having angulated portions at their ends, and having portions adapted to engage the sides of the recesses, disposed between the offset and angulated portions, the arms of said holding elements being adapted to be sprung into the recesses and forced out into bearing engagement with the sides thereof by the resiliency of the looped portions of the holding elements.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE COLLIS.

Witnesses:
FRIEDA E. TRITSCHLER,
F. E. BROWN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."