J. M. ZWICKLE.

CRATE.

APPLICATION FILED MAR. 15, 1913.

1,083,787.

Patented Jan. 6, 1914.

2 SHEETS—SHEET 1.

Fig. 1.

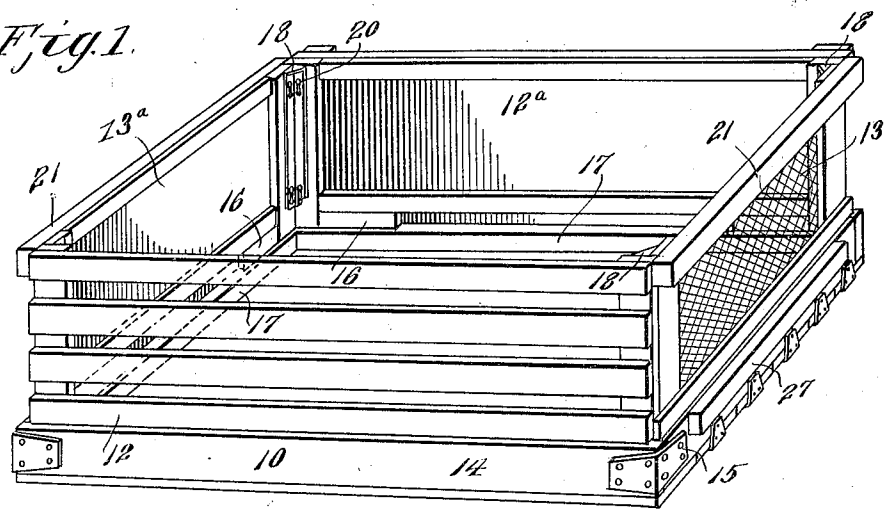


Fig. 2

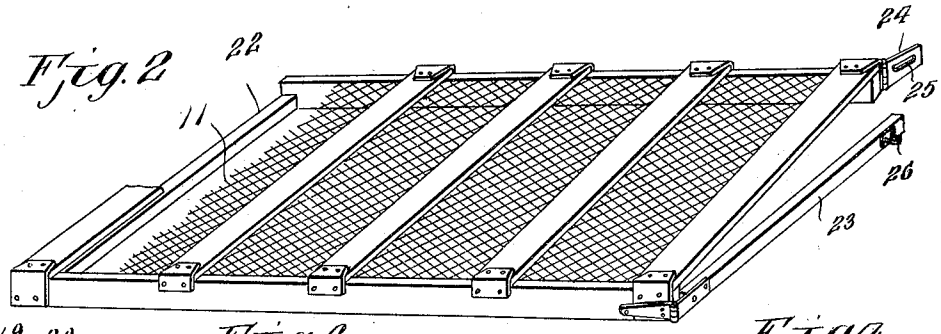


Fig. 3.

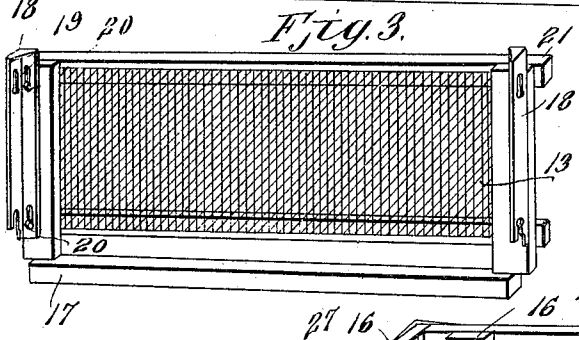


Fig. 4.

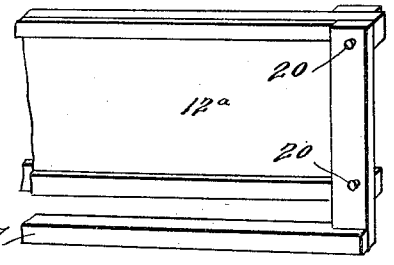
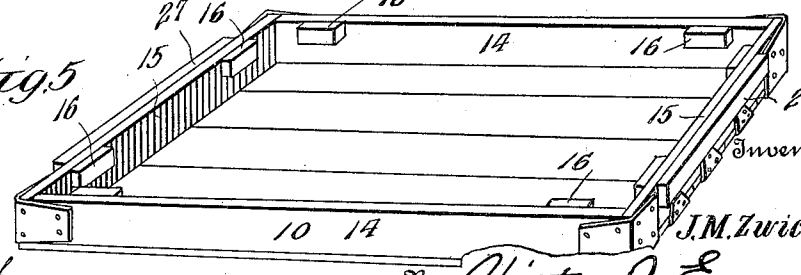


Fig. 5



Witnesses

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2 SHEETS—SHEET 2.

Fig. 6.

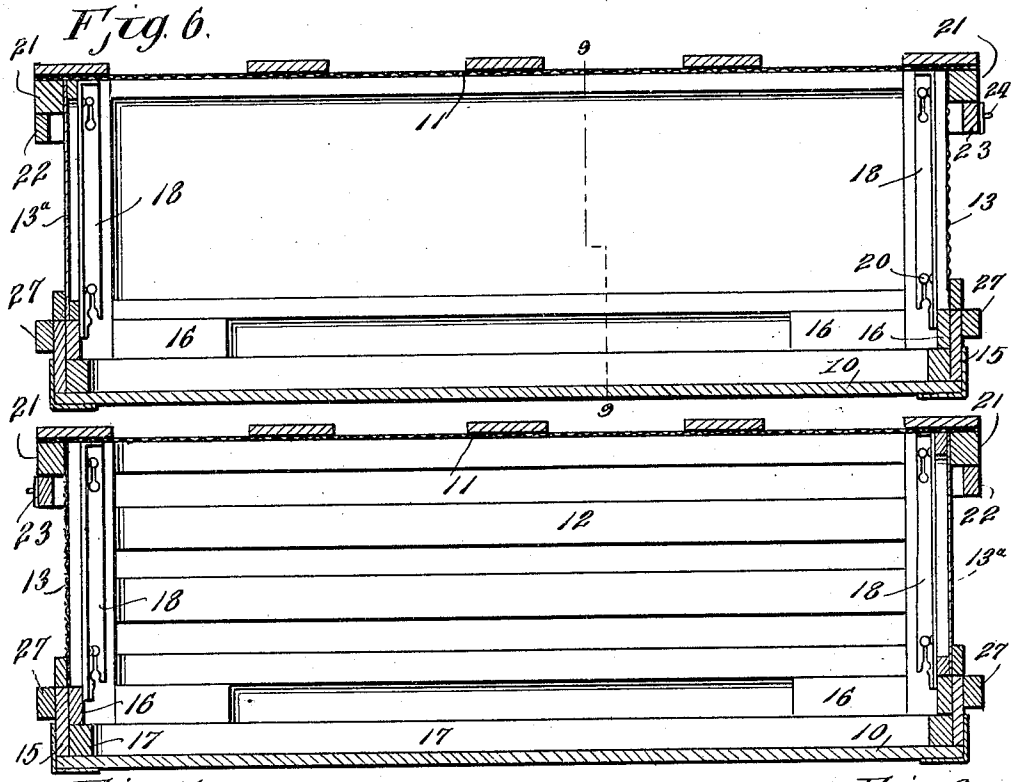


Fig. 7.

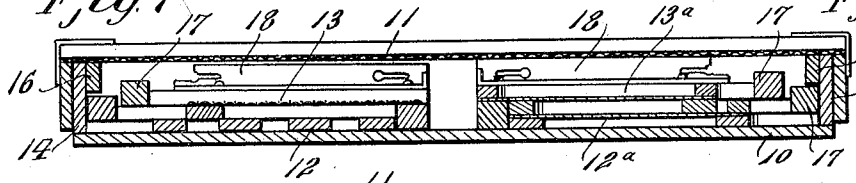
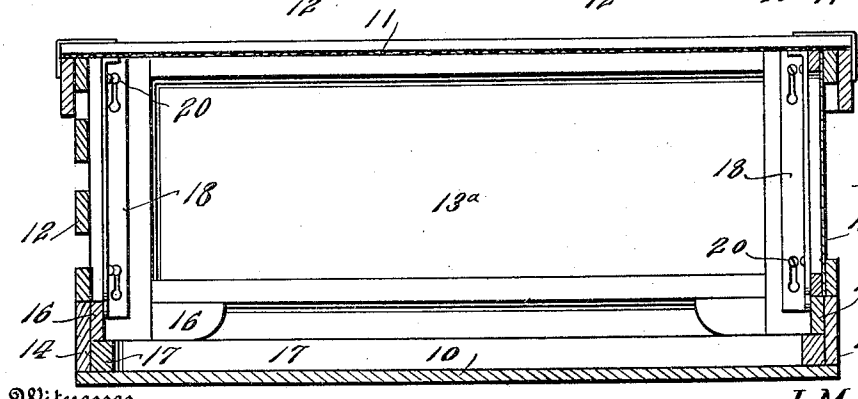


Fig. 8.

Fig. 9.



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UNITED STATES PATENT OFFICE.

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CRATE.

1,083,787. Specification of Letters Patent. Patented Jan. 6, 1914.

Application filed March 15, 1913. Serial No. 754,439.

To all whom it may concern:

Be it known that I, JOHN M. ZWICKLE, a citizen of the United States, residing at Roanoke, in the county of Roanoke and State of Virginia, have invented new and useful Improvements in Crates, of which the following is a specification.

The invention relates to crates and more particularly to a crate embodying improvements in a crate disclosed in my application for a patent filed October 11, 1912, Serial Number 725,296.

The invention embodies, among other features, a crate of the knockdown type, and which is simple and durable in construction and can be readily dismembered and placed within a base forming a part of the crate. Similarly, the parts of the crate can be readily assembled to provide a convenient receptacle which can be employed for the purpose of transporting various articles or animals and which, when made in a large size, can also be conveniently used as a coop for the habitation of chickens or the like.

In the further disclosure of the invention reference is to be had to the accompanying drawings, constituting a part of this specification, in which similar characters of reference denote corresponding parts in all the views, and in which:

Figure 1 is a perspective view of the crate showing the same in assembled position, the cover having been removed to disclose the interior of the crate; Fig. 2 is a perspective view of the cover, parts being broken away to disclose the underlying structure; Fig. 3 is a perspective view of one of the ends, looking at the inner face thereof; Fig. 4 is a perspective view of the other end looking at the inner face thereof; Fig. 5 is a fragmetary perspective view of the base or bottom; Fig. 6 is a vertical sectional view of the crate when the same is assembled with the cover thereon, showing the solid side of the crate in elevation; Fig. 7 is a similar view looking at the opposite side and which, in this instance, is shown in elevation and composed of slats; Fig. 8 is a vertical sectional view of the crate when in knockdown position; and Fig. 9 is a vertical sectional view of the crate, taken on the line 9—9 in Fig. 6.

Referring more particularly to the views, I disclose a crate consisting of a base 10, a cover 11, sides 12, 12ª and ends 13, 13ª, the base 10 being constructed to form a shallow receptacle and the cover 11 being substantially of the same depth as the base 10 for a purpose that will be hereinafter more fully disclosed.

The side 12 is preferably of a slat construction and the side 12ª solid whereas the end 13 is of a net work construction and the end 13ª solid, the cover being preferably of a parallel slat construction, it being understood, however, that I do not limit myself to the particular forms of sides, ends, and cover disclosed and that the same may be either made solid, or of a net work construction, this being dependable entirely upon the use to which the crate is put.

Secured to the inner faces of side walls 14 and end walls 15 of the base 10 are a series of horizontally arranged blocks 16 and the sides and ends 12, 12ª and 13, 13ª each have a horizontal strip 17 secured thereto and spaced from the body portions of the sides and ends, as shown in Figs. 3 and 4, so that when the sides and ends are placed within the base 10 the blocks 16 will project through the spaces between the strips 17 and the respective sides and ends to which they are secured so that the blocks, together with the strips, will exert a relative clamping action to secure the sides and ends in a vertical position with respect to the base, it being understood that the sides 12, 12ª abut against the inner faces of the walls 14 and the ends 13, 13ª abut against the inner faces of the ends 15. It will be further apparent that when the sides and ends 12, 12ª and 13, 13ª are arranged on the base in the manner mentioned they will relatively abut at their vertical edges, and in order to secure the sides and ends in relatively rigid position within the base, locking plates 18, disclosed in the heretofore mentioned pending application and clearly described therein, are arranged for slidable engagement with the adjacent end portions of adjacent sides and ends to secure the same in relatively rigid position on the base, each of the said locking plates including a plurality of bayonet slots, through which pins 20 carried on the end portions of the sides and ends are adapted to extend so that when the sides and ends are arranged in the position mentioned heretofore with respect to the base, the locking plates 18 are slid into locking position to rigidly lock adjacent sides and ends together.

Carried on the upper horizontal edges of the ends 13, 13ª are horizontally extending bars 21, projecting outwardly from the outer faces of the ends and forming parts of the frame constructions thereof. These bars are provided for the purpose of locking and securing the cover 11 in rigid position on the crate after the sides and ends have been assembled with respect to the base, and in order to accomplish this result a rigid strip 22 extends across one end of the cover 11 and in spaced relation to the body portion thereof so that when the cover is mounted on the vertically disposed sides and ends, which have been previously connected by the locking plates as mentioned, the bar 21 on the end 13ª will lie between the strip 22 on the cover and the main frame portion of the cover. A second locking strip 23 is mounted to swing on the other end of the cover and longitudinally spaced from the body portion thereof in the same manner as the strip 22 so that the bar 21 on the end 13 of the crate will project into the space between the swinging locking strip 23 and the main frame portion of the cover, a hasp 24 being mounted to swing on the cover 11 and provided with a slot 25 adapted to receive therethrough a staple 26 carried on the locking strip 23. Now when the cover has been placed on the crate as mentioned, and the hasp is engaged with the staple, the staple will project beyond the hasp so that a suitable pad-lock or the like can be engaged with the staple to secure the locking strip 23 in locked position and prevent the same from swinging on the cover, it being thus apparent that when this has been accomplished the cover will be rigidly locked on the ends 13, 13ª in view of the fact that the bars 21 of the ends project through the spaces formed between the strip 22 and the body of the cover and the strip 23 and the body of the cover. Now by referring to Figs. 6 and 7 the arrangement of the cover with respect to the sides and ends will be clearly apparent and it will be seen that the cover overlaps the upper edges of the sides as well as the upper edges of the ends so as to completely close the crate at this point.

When it is desired to secure the crate in a knockdown position as shown in Fig. 8, the cover is first unlocked and removed from the sides and ends, after which the locking plates 18 are raised on the ends to disengage the same from the sides, thus permitting of raising and sliding the ends and sides outwardly from the base 10, after which the ends and sides are placed within the base as shown in Fig. 8 and the cover 11 is then arranged upon the base. Now in order that the cover may be locked on the base, bars 27, similar to the bars 21, are secured to the outer faces of the end walls 15 of the base and the cover is arranged with respect to the bars 27 in the same manner as it is arranged with respect to the bars 21 so that the bars 27 will project into the spaces between the strip 22 and the main portion of the cover and the strip 23 and the main portion of the cover, the strip 23 being secured in locked position by the hasp 24 and staple 26, together with the pad-lock mentioned heretofore. When the crate is in knockdown position as mentioned, it can be readily transported from one place to another without taking up a large amount of room in a car or other vehicle and it will be apparent that the crate can be readily assembled for the purpose of containing articles, animals or various other things when it is desired to transport the same from one place to another. It should be particularly noted that the cover can be secured in locked position on the crate when the crate is in knockdown position or assembled and by providing this particular feature of the device described I have produced a crate of a simple and durable construction, which can be cheaply manufactured and which consists of few and simple parts.

As mentioned heretofore, the crate disclosed herein is simply an improved form of the crate embodied in my heretofore mentioned pending application and for this reason I do not broadly claim the herein disclosed crate, the feature of this particular form being the manner of assembling the sides and ends with respect to the base and securing the cover in locked position on the sides and ends or on the base.

Having thus described my invention, I claim:

1. In a crate, the combination with a base, of blocks arranged in spaced relation on the base, sides and ends for disposal in the base and adapted to extend vertically thereto, strips carried by the sides and ends and spaced from portions thereof to receive the blocks of the base therebetween when the sides and ends are arranged in the base, a cover adapted to lie upon the said sides and said ends when the same are arranged in upright position in the said base, bars carried on the ends and strips carried by the cover and spaced from portions thereof so that the bars on the ends will project through the spaces between the strips and the cover when the cover is arranged on the ends, to secure the said cover in closed position on the said ends.

2. In a crate, the combination with a base, of sides and ends adapted to be supported within the base and extending vertically therein, a cover for disposal on the said ends and adapted to overlap the said sides, and a locking strip mounted to swing on the said cover and adapted to pass beneath a portion of one of the said ends to securely lock the said cover on the said ends.

3. In a crate, the combination with a base, of sides and ends supported therein and removable relatively thereto, a cover for disposal on the said ends and adapted to overlap the said sides, a rigid strip carried at one end of the cover and adapted to pass beneath a portion of one of the ends, and a second strip mounted to swing on the cover and adapted to pass beneath a portion of the other end for locking the said cover on the said ends.

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

JOHN M. ZWICKLE.

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