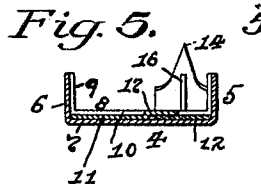
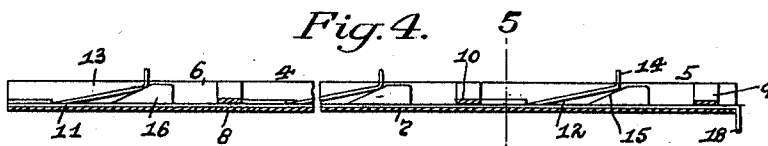
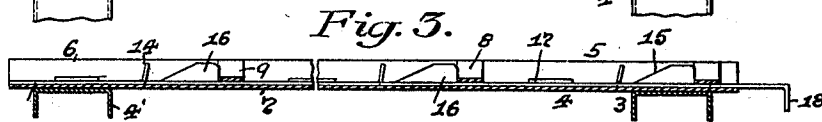
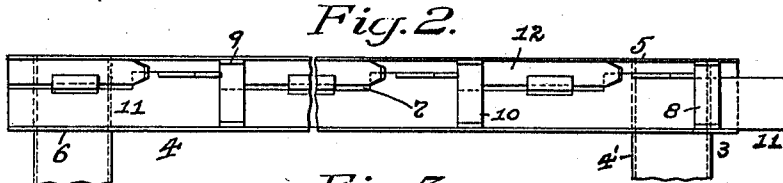
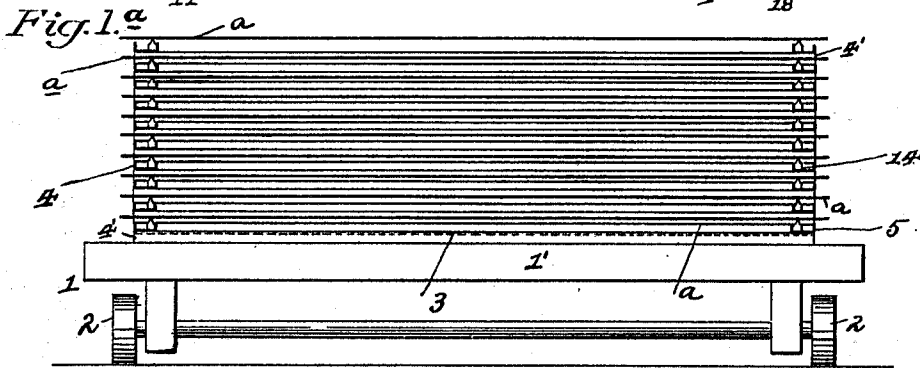
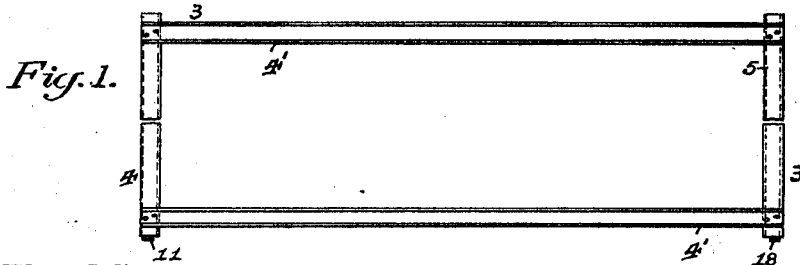


G. RUSSELL.
 FRAME FOR SUPPORTING COATED ARTICLES.
 APPLICATION FILED AUG. 5, 1909.

993,110.

Patented May 23, 1911.



WITNESSES

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UNITED STATES PATENT OFFICE.

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FRAME FOR SUPPORTING COATED ARTICLES.

993,110.

Specification of Letters Patent.

Patented May 23, 1911.

Application filed August 5, 1909. Serial No. 511,465.

To all whom it may concern:

Be it known that I, GEORGE RUSSELL, a resident of McKeesport, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Frames for Supporting Coated Articles; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to frames for supporting coated metal sheets or plates, and has special reference to such sheets or plates which are coated with enamel, lacquer or other like material in any suitable manner, or such as by the apparatus illustrated and described in an application filed by me of even date herewith, Serial No. 511,464, for machines for coating metal sheets.

The object of my invention is to provide a cheap, simple and efficient holding or supporting frame for these coated metal sheets or plates, in which such sheets or plates can be supported thereon during handling, or while being carried after being coated for baking or drying the same, so as to prevent marring or injury to their coated surfaces, and thereby thus enable the sheets or plates to have a neat and perfect appearance to the eye when finished and ready for marketing.

My invention consists, generally stated, in the novel arrangement, construction and combination of parts, as hereinafter more specifically set forth and described, and particularly pointed out in the claims.

To enable others skilled in the art to which my invention appertains to construct and use my improved supporting frame for coated metal sheets or plates, I will describe the same more fully, referring to the accompanying drawing, in which—

Figure 1 is an inverted plan view of my improved frame for supporting coated sheets or plates. Fig. 1^a is an end view of a movable truck for carrying the coated sheets or plates having my improved supporting frame employed therewith. Fig. 2 is an enlarged top plan view of the frame bars. Fig. 3 is a sectional view of the bar, showing some of the parts in full lines and in their lowered or inoperative positions. Fig. 4 is a longitudinal section of the bar similar to Fig. 3, showing some of the parts in full lines and in their operative positions. Fig. 5 is an enlarged cross-section of the bar on the line 5—5 Fig. 4, looking in the direction of the arrow.

Like symbols of reference herein indicate like parts in each of the figures of the drawing.

As illustrated in the drawing, 1 represents the truck for holding and carrying the metal sheets or plates after being coated in any suitable manner, and it is mounted upon wheels 2 for moving the same.

The supporting frame is shown at 3, and it is formed of thin sheet metal having the cross-bars 4' of channel-shape and the supporting bars 4 mounted thereon. The bars 4 are each provided with a main trough member 5 which is formed in channel shape, and within and extending across said member are a series of cross-plates 8, of channel shape. These plates 8 act as braces by being attached in any suitable manner to the sides 6 of the trough through their angular ends 9, and their body portions 10 are placed adjacent to the bottom 7 of said trough, so as to form guides between said bottom and said portions for the sliding plate member 11. Secured in any suitable manner to the bottom 7 of the trough 5 on the bars 4 are a series of spring members 12 which have spring portions 13 thereon and provided with sharpened and pointed ends 14 projecting upwardly at about right angles to the same and in substantially a vertical line therefrom. These spring members 12 are adapted to engage with the inclined portion 15 on the raised portions or projections 16 through their spring portions 13, which projections extend up in a vertical line from the sliding member 11, and lips 17 on said member are adapted to extend over said spring portions to hold the members 12 in their lowered positions. A handle or finger portion 18 projects downward from the end of the sliding member 11 for moving the same within the trough 5.

When the supporting frames 3 are to be used, the operator through the handles 18 pushes in the sliding members 11 on the bars 4, which will allow the inclined faces 15 of the projections 16 on the members 11 to come in contact with and under the spring portions 13 on the members 12 and thereby raise said members 12 and with them the ends 14 thereof. With the ends 14 in this raised position the coated sheets or plates *a* are placed upon the frame 3, so that such ends will engage with and support such sheets or plates thereby, and preferably two of such

bars are used on a frame for supporting a single sheet or plate and at each end of the same. When each of the frames 3 are supporting each of the coated sheets or plates *a* upon the truck 1, the lower frame will rest upon the bed 1' of the truck 1 by its cross-bars 4', and the other frames will rest upon one another above the same, with the cross-bars 4' resting upon the bars 4, so that the sheets or plates will be held from contact with the frames as they are held on the truck, and when a sufficient number of coated sheets or plates *a* are thus placed on the carriage 1 by the frame 3, the truck is moved to the drying place or baking oven to dry or bake such sheets or plates as desired and in the usual manner. After the sheets or plates *a* are dried or baked, they can be removed from the truck 1 by lifting the same from the bars 4 on the frames 3 and then lifting the frames from the carriage or by lifting the frames and plates together and from the carriage, and then removing the plates from the frames, as desired.

When the supporting frames 3 are not in use in connection with the sheets or plates *a* and in order to inclose the ends 14 on the spring members 12 within the troughs 5 of the bars, the operator pulls out the sliding members 11 through the handles 18, which will act to withdraw the inclined portions 15 on the projections 16 from under the spring portions 13 on said members 12, and thereby lower said members and their ends 14 within said troughs, as shown in Fig. 3.

The bars 4 can be disconnected from each other as shown in Figs. 4 and 5 and used separately, while various other modifications and changes in the design, construction and operation of my improved supporting frame for coated metal sheets or plates may be resorted to, without departing from the spirit of the invention or sacrificing any of its advantages.

It will thus be seen that my improved supporting frame for coated metal sheets or plates will enable the handling and holding of the coated sheets or plates without scratching, defacing or injuring the coated surfaces of such sheets or plates to any extent whatever, so that such plates when ready for the market will be free from any imperfections or objections through unsightly surfaces thereon and will therefore present a finished and perfect article for commercial use. The device being capable of having its supporting means inclosed or brought within the same will prevent such means from being in the way when not in use, and so permit the device to assume a compact form for handling, shipping or storage.

What I claim as my invention and desire to secure by Letters Patent, is—

1. A bar for supporting coated sheets or

plates having movable upwardly extended members thereon provided with pointed ends and adapted to be raised for engaging with the coated surfaces of said sheets or plates to support the same.

2. A bar for supporting coated sheets or plates having movable upwardly extended members thereon provided with pointed ends and adapted to be raised for engaging with the coated surfaces of said sheets or plates to support the same, and means for raising said members.

3. A bar for supporting coated sheets or plates, said bar having a channel shape and provided with movable upwardly extending members thereon having pointed ends adapted to be raised for engaging with the coated surfaces of said sheets or plates to support the same.

4. A bar for supporting coated sheets or plates, said bar having a channel shape and provided with movable upwardly extending members thereon having pointed ends adapted to be raised for engaging with the coated surfaces of said sheets or plates to support the same, and means for raising said members.

5. A sheet metal bar for supporting coated sheets or plates, said bar having a channel shape and provided with struck up upwardly extending members thereon having pointed ends for engaging with said sheets or plates to support the same, said ends being adapted to extend above the side walls of said bar.

6. A bar for supporting coated sheets or plates, consisting of a main member, movable members on said member provided with upwardly extending pointed ends for engaging with the sheets or plates, and a sliding member on said main member for engaging with said movable members to raise said ends.

7. A bar for supporting coated sheets or plates, consisting of a main member, movable members on said member provided with upwardly extending pointed ends for engaging with the sheets or plates, and a sliding member on said main member having raised portions thereon for engaging with said movable members to raise the same.

8. A bar for supporting coated sheets or plates, consisting of a main member, movable members on said member provided with upwardly extending pointed ends for engaging with the sheets or plates, and a sliding member on said main member having inclined raised portions thereon for engaging with said movable members to raise the same.

9. A bar for supporting coated sheets or plates, consisting of a main member, movable spring members on said member provided with upwardly extending pointed ends for engaging with the sheets or plates,

and a sliding member on said main member for engaging with said movable members to raise said ends.

10. A bar for supporting coated sheets or
5 plates, consisting of a main member, movable spring members on said member provided with upwardly extending pointed ends for engaging with the sheets or plates, and a sliding member on said main member
10 having raised portions thereon for engaging with said movable members to raise the same.

11. A bar for supporting coated sheets or plates, consisting of a main member, movable spring members on said member provided with upwardly extending pointed ends for engaging with the sheets or plates, and a sliding member on said main member having inclined raised portions thereon for
20 engaging with said movable members to raise the same.

12. A bar for supporting coated sheets or plates, consisting of a main trough-shaped member, movable members on said member provided with upwardly extended pointed ends for engaging with the sheets or plates, and a sliding member within said main member for engaging with said movable members to raise said ends.

30 13. A bar for supporting coated sheets or plates, consisting of a main trough-shaped member, movable members on said member provided with upwardly extending pointed ends for engaging with the sheets or plates, and a sliding member within said main member having raised portions thereon for engaging with said movable members to raise the same.

40 14. A bar for supporting coated sheets or plates, consisting of a main trough-shaped

member, movable members on said member provided with upwardly extending pointed ends for engaging with the sheets or plates, and a sliding member within said main member having inclined raised portions
45 thereon for engaging with said movable members to raise the same.

15. A bar for supporting coated sheets or plates, consisting of a main trough-shaped member, movable spring members on
50 said member provided with upwardly extending pointed ends for engaging with the sheets or plates, and a sliding member within said main member for engaging with said movable members to raise said ends.

16. A bar for supporting coated sheets or plates, consisting of a main trough-shaped member, movable spring members on said member provided with upwardly extending pointed ends for engaging with the sheets or
60 plates, and a sliding member within said main member having raised portions thereon for engaging with said movable members to raise the same.

17. A bar for supporting coated sheets or
65 plates, consisting of a main trough-shaped member, movable spring members on said member provided with upwardly extending pointed ends for engaging with the sheets or plates, and a sliding member within said
70 main member having inclined raised portions thereon for engaging with said movable members to raise the same.

In testimony whereof, I, the said GEORGE RUSSELL, have hereunto set my hand.

GEORGE RUSSELL.

Witnesses:

GERTRUDE KREMER,
J. N. COOKE.