Aug. 25, 1953 J. P. KING ET AL 2,649,965

DYE-HOUSE TRUCK

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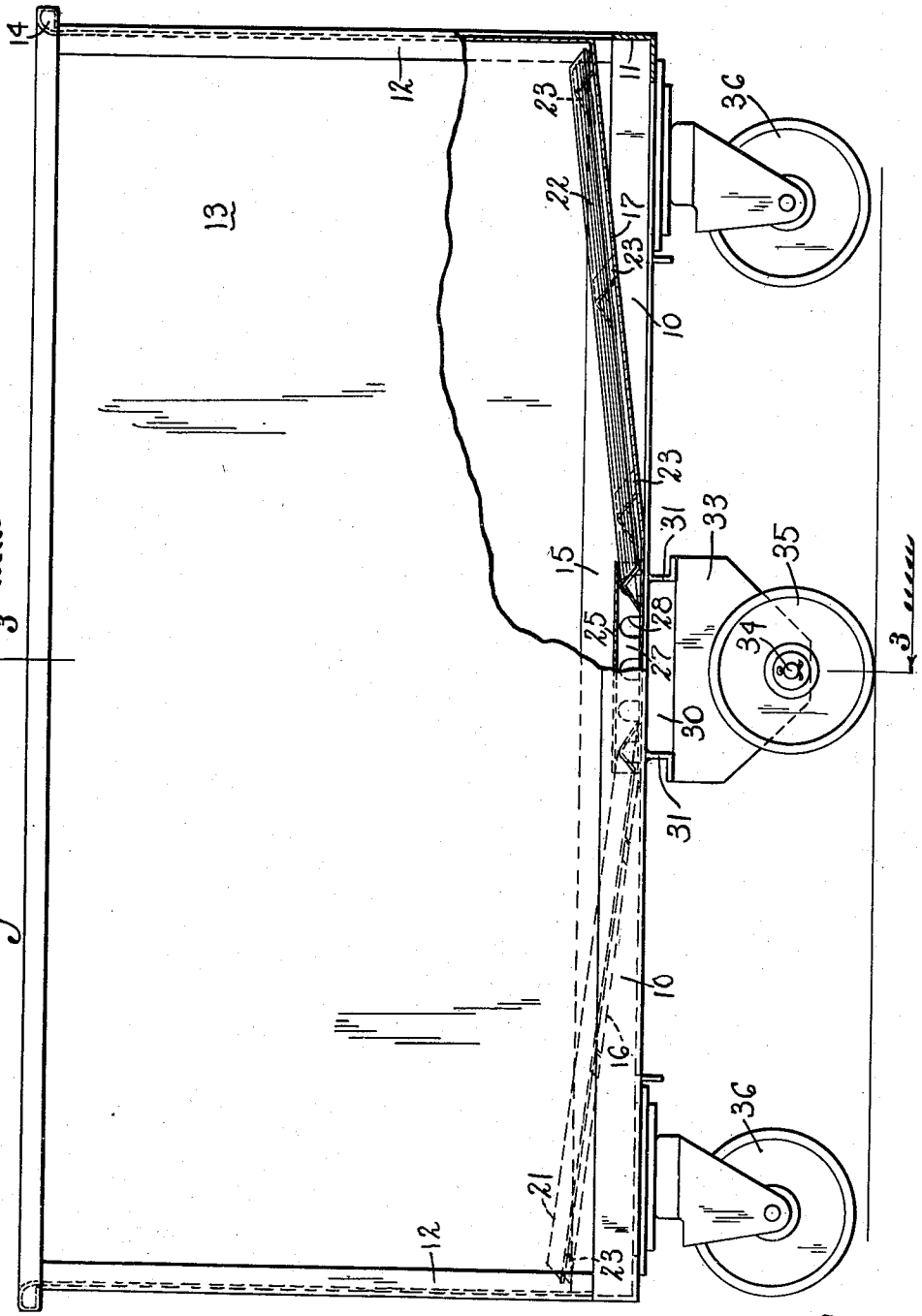


Fig. 1.

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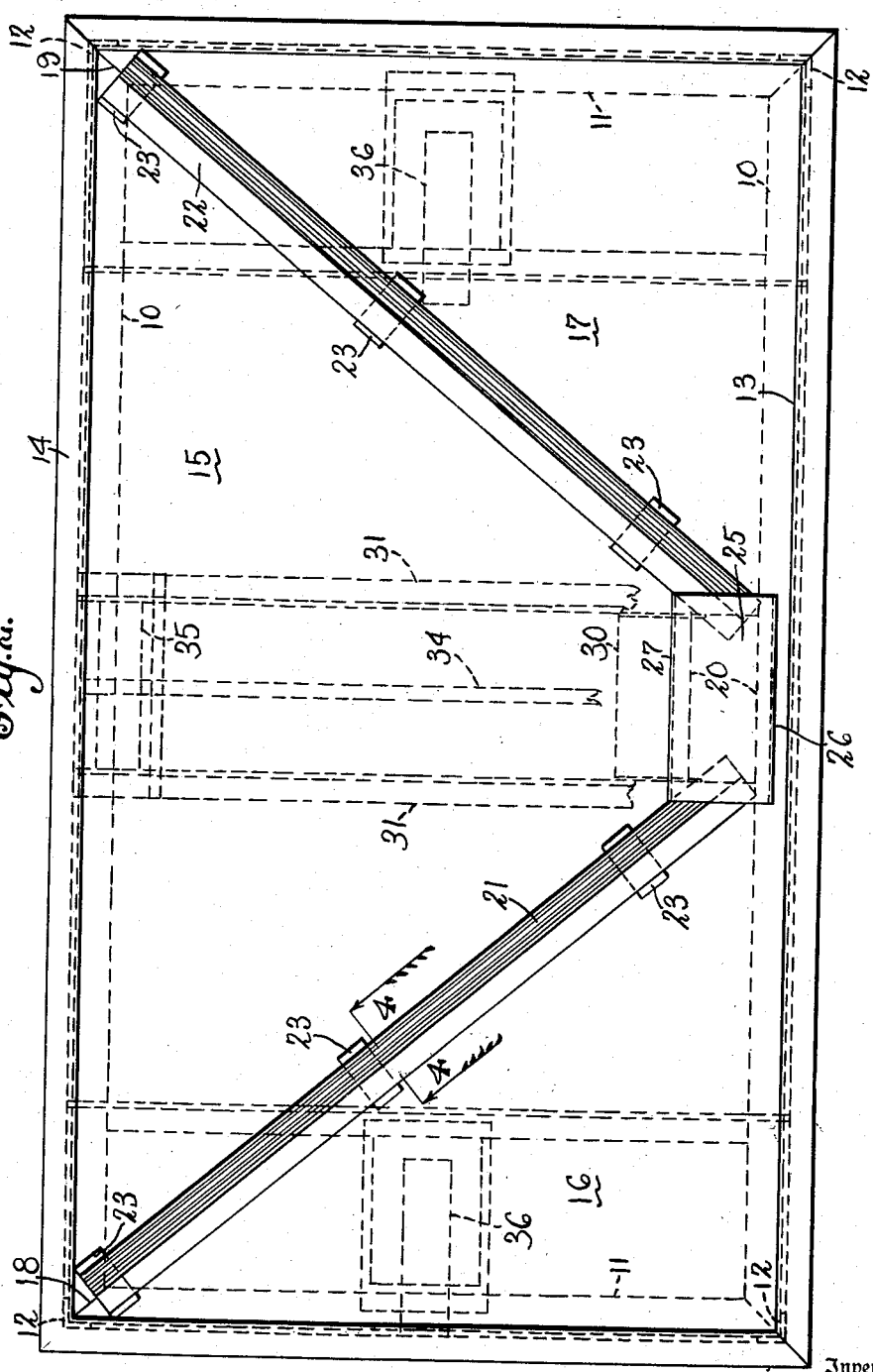


Fig. 2.

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Fig. 4.

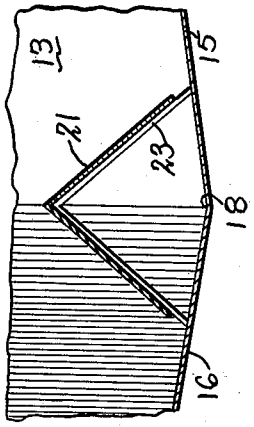


Fig. 5.

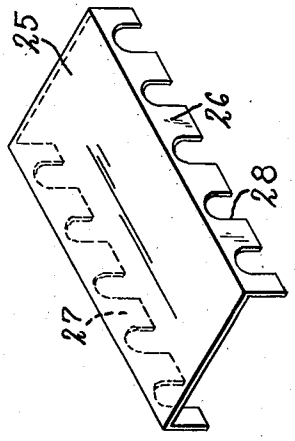
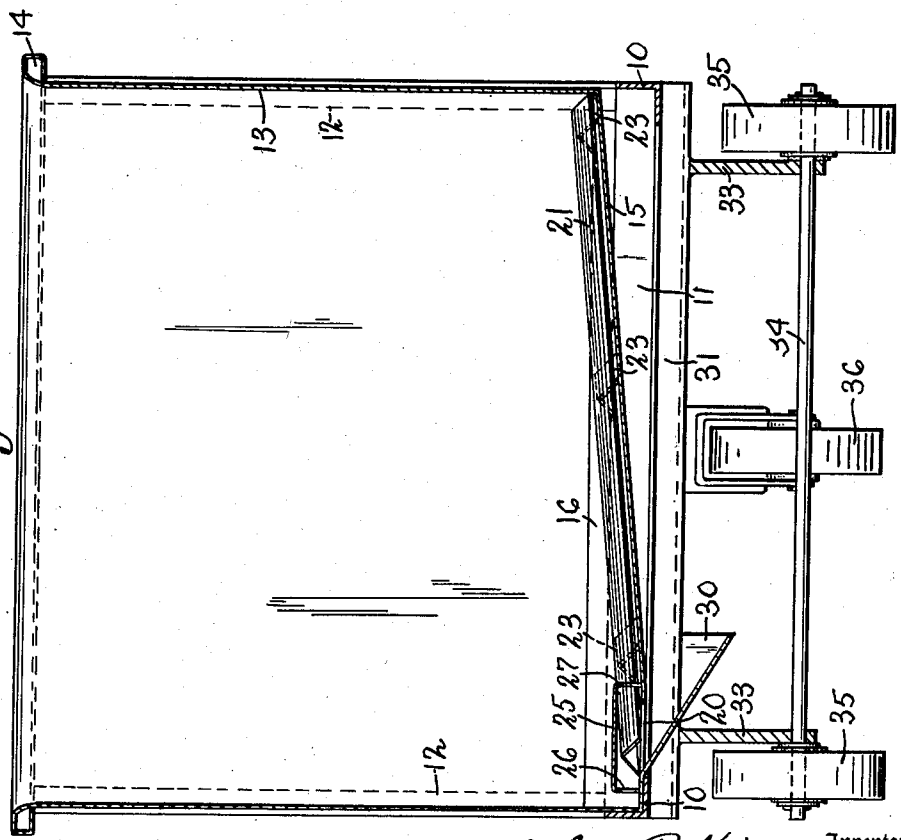


Fig. 3.



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UNITED STATES PATENT OFFICE

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DYE-HOUSE TRUCK

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Application December 14, 1949, Serial No. 132,898

2 Claims. (Cl. 210—149)

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This invention relates to a dye-house truck, and more particularly to a truck or conveyance for the transportation of material, such as textile material, in wet condition.

In handling textile material during dyeing operations or the like, the material is handled when wet and it is necessary for it to be transported from place to place in this condition. For this purpose the material is placed in a truck, or similar structure, in loose condition and it is necessary to provide means to permit the water to drain from the truck body. At the same time, it is advantageous to control this drainage to some extent so that it will not, for example, drain upon the feet of the operator using the device.

According to the present invention, the tank or body of the truck is so constructed that the bottom thereof slopes toward a small area at one side of the truck and a deflector is provided to deflect the drainage toward the point below the central portion of the body so that it will not be discharged adjacent the feet of the user.

Also, means are provided for preventing the clogging of the valleys formed by the sloping sections of the bottom of the tank and also for preventing of the clogging of the drainage opening. This function is performed by members which cover the valleys and the drainage opening so as to support the material above the tank bottom, these members being so constructed that, while they support the material, they will at the same time permit drainage from the material down the valleys and through the outlet opening.

One object of the present invention is to provide a dye-house or conditioning truck of novel and improved construction.

A further object of the invention is to provide a conditioning truck of the character described having provision for expediting and controlling the drainage of moisture from the material being transported in the truck.

A still further object of the invention is to provide a conditioning truck of the character described in which the drainage from the material contained in the truck is directed toward one point at which a discharge opening is provided, and the material is supported within the truck so as to permit free drainage therefrom.

A still further object of the invention is to provide a conditioning truck of the character described in which a discharge opening is provided at one side of the truck and the moisture draining from the material directed toward this opening, and to provide a deflector or apron below this opening to deflect the discharge toward a point below the central portion of the truck.

A still further object of the invention is to provide a truck of the character described having a tank to contain the material to be transported, the tank being so constructed that free drainage will be permitted from the material contained therein.

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To these and other ends the invention consists in the novel features and combinations of parts to be hereinafter described and claimed.

In the accompanying drawings:

Fig. 1 is a side elevational view of a conditioning truck embodying our invention, a part being broken away to show the interior construction;

Fig. 2 is a top plan view of the truck;

Fig. 3 is a transverse sectional view on line 3—3 of Fig. 1;

Fig. 4 is a detailed sectional view on line 4—4 of Fig. 2; and

Fig. 5 is a detailed view of the guard or shield covering the discharge opening.

To illustrate a preferred embodiment of our invention, we have shown a truck comprising a frame consisting of an open rectangular bottom portion and corner posts upstanding therefrom. The bottom portion consists of side members 10 and end members 11 formed of angle iron and secured together at the corners of the truck to provide an open rectangular bottom frame member. At each of the four corners of this member are upstanding corner posts 12 also formed of angle iron and welded to the members 10 and 11, so that the exterior sides of the posts are substantially flush with the upstanding sides of the members 10 and 11. The lower portions of the latter members project inwardly so as to provide an inwardly extending flange about the frame.

Disposed within the corner posts 12 is a tank or body 13 of rectangular shape which may be formed of sheet metal, and preferably stainless steel. The edges of the side walls of the tank may be turned outwardly and downwardly, as shown at 14, so as to provide a rounded upper edge flange.

The bottom of the tank will be of seamless construction and, as shown more particularly in Figs. 1 and 2, consists of three sections, a central section 15, and end sections 16 and 17. These sections are so arranged that they slope downwardly from all sides of the tank toward valleys 18 and 19 which lie between the central section and the two end sections. These valleys in turn slope toward an opening 20 formed in the central section adjacent one edge of the tank where the valleys meet, so that any water or dye material in the tank will drain toward this discharge opening.

If the cloth or other material is merely deposited upon the bottom of the tank, these valleys would become clogged and free drainage therealong would not be permitted. In order to prevent this clogging of the valleys 18 and 19, they are covered by inverted trough-shaped members 21 and 22, shown more especially in

Figs. 2 and 4. These trough-shaped members are supported upon inverted V-shaped brackets 23 spaced along the length of the troughs at proper intervals so that the lower edges of the trough members will be supported above the bottom sections of the tank and, thus, permit free drainage into the valleys while at the same time holding the material in an elevated position with respect to the valleys so that the latter will not be clogged.

It may also occur that the discharge or drainage opening 20 might be clogged by the material within the tank and this is prevented by a shield or guard member 25 shown more especially in Figs. 2 and 5. This member 25 is of inverted channel-shaped form so as to be provided with side flanges 26 and 27 upon which it rests. These flanges are provided with openings or notches 28 to permit drainage therethrough into the opening 20, and the member 25 is open at its ends between the flanges to receive the lower ends of the inverted trough members 21 and 22. It will, therefore, be apparent that while the valleys and the opening 20 are so covered that they cannot be clogged by the material in the tank, nevertheless free drainage is permitted down the valleys below the guard member 25 into the opening and also through the flanges 26 and 27 of the guard member 25.

The opening 20, as shown in Figs. 2 and 3, is formed adjacent one edge of the tank and if the water from the tank were permitted to be discharged freely from this opening, it might drain downwardly upon the feet of the user. Therefore, a deflector or apron 30 is secured at the under side of the tank, as shown in Fig. 3, below the opening 20 so that any water discharged through this opening will be deflected toward a point below the central portion of the tank so as not to drain upon the floor adjacent the edge and, therefore, adjacent the feet of the user.

At the central portion of the bottom frame, a pair of angle irons 31 are secured to the members 10 to extend transversely across the bottom of the frame in spaced relation, and secured to these angle irons are brackets 33 which carry an axle 34 upon which wheels 35 are rotatably mounted. A caster wheel 36 is provided at each end of the truck adjacent the central portion thereof and, as shown in Fig. 1, these caster wheels may be raised slightly above the wheels 35 so that the truck will be supported mainly by, and rock upon, the latter wheels.

It will be apparent that with the above arrangement a truck is provided that will keep the cloth clean and undamaged and at the same time keep dry the feet of the user. The bottom of the tank is provided with only one opening and this opening is so protected that it will not be clogged by the cloth and that dirty water from the floor of the dyeing house cannot be splashed upwardly upon the cloth in the truck. Moreover, while being easy to clean, it is also provided with proper drainage to a single point and any obstruction to this drainage by the material in the truck is prevented.

While we have shown and described a preferred embodiment of our invention, it will be understood that it is not to be limited to all of the details shown, but is capable of modification and variation within the spirit of the invention and within the scope of the claims.

What we claim is:

1. A conditioning truck comprising a wheeled frame, a tank supported thereon having a bottom and upstanding sides, the bottom comprising a central section and two end sections, said central section being of triangular shape with its base extending along one side of the tank and sloping downwardly toward the opposite side, each of said end sections being of triangular shape with its base extending along an end of the tank and sloping downwardly toward the central portion thereof to form a valley at the junction with the center section, said valleys sloping downwardly toward and converging adjacent the lower edge portion of one of said tank sides and centrally thereof, means providing an opening at the convergence of said valleys, inverted trough-shaped cover members over said valleys, said trough-shaped members being supported in a position with their lower edges spaced from the bottom sections of the tank, a shield over said opening, said shield being of inverted channel shape in form and being open at its ends to receive the ends of the cover members therethrough, and means providing drain openings in the side flanges of said shield.

2. A conditioning truck comprising a wheeled frame, a tank supported thereon having a bottom and upstanding sides, the bottom comprising a central section and two end sections, said central section being of triangular shape with its base extending along one side of the tank and sloping downwardly toward the opposite side, each of said end sections being of triangular shape with its base extending along an end of the tank and sloping downwardly toward the central portion thereof to form a valley at the junction with the center section, said valleys sloping downwardly toward and converging adjacent the lower edge portion of one of said tank sides and centrally thereof, means providing an opening in the tank bottom at the convergence of said valleys, inverted trough-shaped cover members over said valleys, said trough-shaped members being supported in a position with their lower edges spaced from the bottom sections of the tank, a shield over said opening, said shield being of inverted channel shape in form and being open at its ends to receive the ends of the cover members therethrough, means providing drain openings below said shield, and a deflector apron below the bottom of the tank to deflect the drainage from the tank bottom opening toward a point below the center of the tank.

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HENRY T. FITTING.

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