

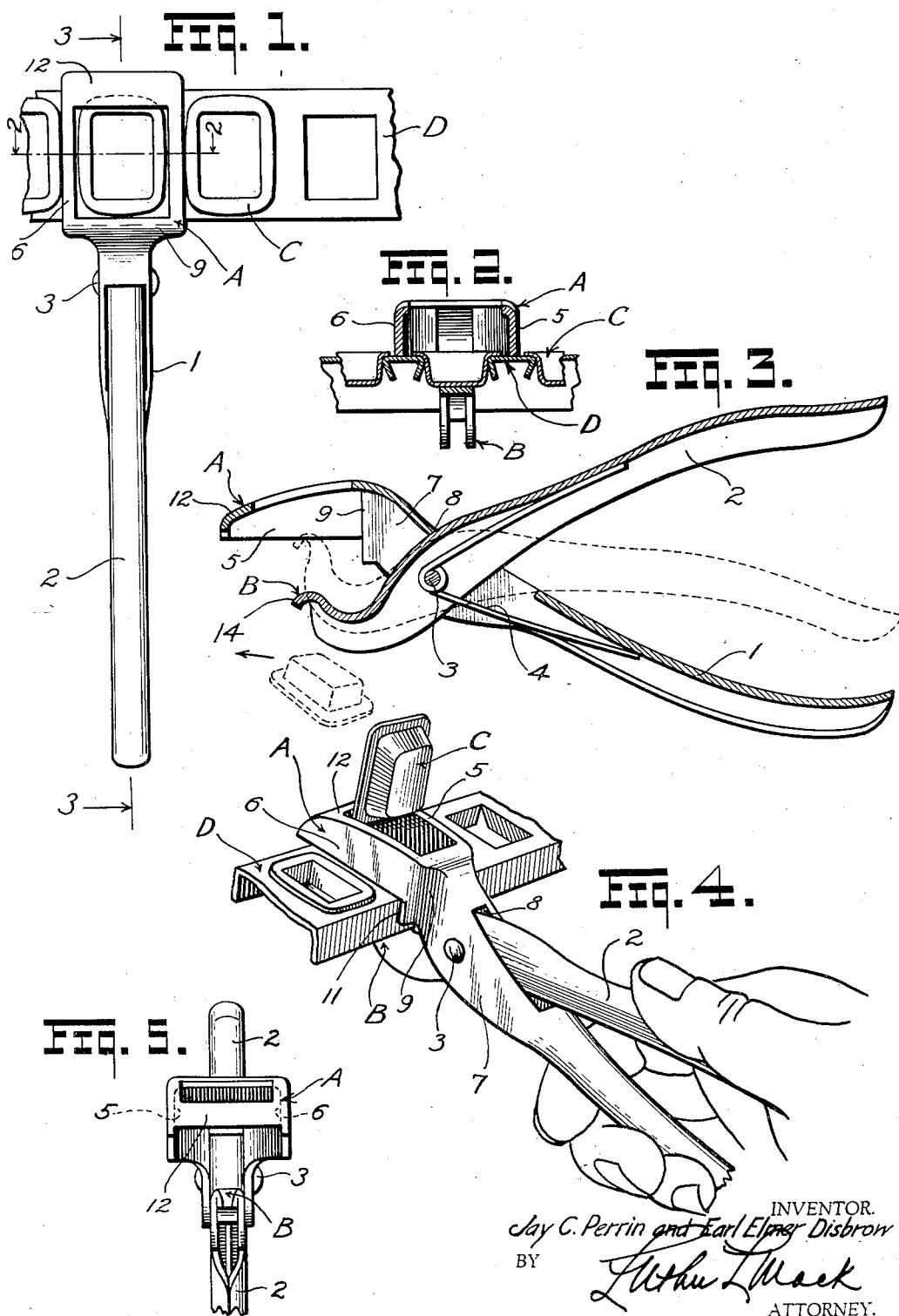
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J. C. PERRIN ET AL

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PAINT REFILL EJECTOR

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INVENTOR.
J. C. Perrin and Earl Elmer Disbrow
BY *Arthur L. Mack*
ATTORNEY.

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PAINT REFILL EJECTOR

Jay C. Perrin, Los Angeles, and Earl Elmer Disbrow, Alhambra, Calif.; said Disbrow assignor to said Perrin

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Paint boxes such as generally used in schools are equipped with removable trays having apertures in which small pots of paint known as paint refills are removably seated. Replacement of empty refills is frequently necessary and is an extremely difficult and annoying task due to the sticking of the refills to the tray. Removal of the refills by hand often results in injuring or objectionable soiling of the hands, and is a difficult and annoying task. Ordinary tools such as usually available are unsuited for the removal of the refills and not infrequently cause bending, distortion or other damage to the trays, often necessitating the relatively costly replacement thereof with new trays.

The purpose of the present invention is to provide a simple and inexpensive tool which may be easily and quickly operated to remove paint refills without any of the objections and difficulties heretofore encountered.

An object of the invention is to provide a paint refill ejector wherein relatively movable handles or the like have portions or jaws of special construction and relative arrangement facilitating a safe and expeditious ejection of refills without damage to the paint box equipment or necessitating the handling of the refills.

An additional object is to provide a paint refill ejector having effective means which will deflect and arrest the movement of the used paint pots or refills when the latter are ejected from the tray during operation of the tool, whereby said pots or refills will be prevented from flying forcibly upward and outward, as is often the case, and striking or injuring the operator or a nearby person, the said means facilitating an arrested discharge of the used pots in a forward direction whereby the ready deposit thereof in a waste receptacle may be effected.

Other objects may appear as the description progresses.

We have shown a preferred form of our invention in the accompanying drawing, subject to modification within the scope of the appended claims without departing from the spirit of our invention.

In said drawings:

Fig. 1 is a top plan view of the ejector of this invention as when applied to a paint box tray to remove a refill;

Fig. 2 is a sectional view taken through the jaws and the paint box tray and showing the application of the jaws to the tray and refill, this Fig. 1;

Fig. 3 is a sectional view taken on the plane of

Fig. 3 is a sectional view taken on the plane of line 3—3 of Fig. 1, with the tray removed;

Fig. 4 is a perspective view of the tool as when in use, showing the refill being ejected;

Fig. 5 is a front elevation of the tool.

It will be understood that the invention suggests various forms of tools for the purpose described, but a preferred embodiment of the invention as shown in the accompanying drawing comprises a tool including handles or like members 1 and 2 connected as at 3 and having jaws A and B of special construction and relative arrangement on certain ends thereof. These jaws and the handles are normally held apart by the spring 4 and when the handles are manipulated said jaws will cooperate to eject a paint refill C from the tray D therefor. The tray D is part of the ordinary paint box equipment such as used in schools and is removably mounted in a paint box as shown.

The paint refills C here shown are of standard form and are removably seated in apertures of the tray and have marginal flanges to hold them in place.

When a refill has been emptied it is necessary to remove it from the tray and to insert a new refill having a full supply of paint therein. The construction and arrangement of this equipment is such that the refills usually stick to the tray and are extremely difficult to remove by hand or with ordinary tools.

In accordance with the provisions of the invention the jaw A is adapted to engage upon the upper surface of the tray, whereas, the jaw B is adapted to engage upon the under side of the refill to be removed.

As here shown, jaw A comprises spaced parallel jaw members 5 and 6 extending longitudinally of and from the handle 1 and adapted to lie upon the upper side of the tray D on opposite sides of and spaced from the refill C to be removed, as shown in Figs. 1 and 2.

The handle 1 is stamped from a blank of sheet metal and has a channelled portion 7, through an opening 8 in the back of which the handle 2 extends, whereby the pivot 3 may be formed. At a point spaced forwardly of the pivot the channelled portion 7 has laterally bent portions 9 from the outer end of which the jaw members 5 and 6 extend. These lateral portions 9 extend downwardly below the plane of the lower edges of the members 5 and 6 and constitute stop shoulders 11 for engagement with the edge of the tray to limit the extension of the members 5 and 6 over the tray. Thus, each jaw member has a stop

shoulder, and when the members 5 and 6 are positioned on the tray, said stop shoulders engage the edge of the tray, as aforesaid.

The outer ends of the jaw members 5 and 6 are joined by a cross member 12 which has its lower edge spaced above the plane of the tray engaging edges of members 5 and 6 and its upper edge spaced inwardly of said lower edge and adapted to overlie the adjacent edge of the paint refill, as shown in Fig. 1, this cross member being of arcuate cross section. It is thus seen that the handle 1 is stamped to include as an integral part thereof the jaw A in the form of an open rectangle.

The handle 2 has the end thereof near the pivot, curved toward jaw A to define the jaw B which is disposed to extend between the jaw members 5 and 6 of the jaw A, and has a rounded terminal 14 adapted to engage the refills as shown in Fig. 2. The jaw B lies mid-way between and beneath the jaw members 5 and 6 and therefore will push the refills upward through the jaw A when the handles are forced together.

As will be noted, the handle 2 is of channelled cross section throughout and, like the handle 1, is stamped from a single piece of sheet metal.

With reference to the foregoing description and accompanying drawing, it will be seen that the tool of this invention may be easily and conveniently employed for expeditiously removing paint refills without any of the objections and difficulties such as usually attend the removal of such refills.

It should be noted that when the empty refills are ejected they will strike the cross member 12 and be deflected forwardly and outwardly to facilitate deposit thereof into a waste basket. Without this cross member and due to the fact that the pots or refills stick and are tightly frictionally held in trays, said pots would, in many instances, be projected upwardly or outwardly with such force as might injure the operator or nearby person or throw the pots a considerable distance into the room and necessitate annoying recovery or picking up thereof.

It is to be understood that we do not wish to limit the invention to the exact form here shown and described, and that we consider as within the scope of this invention any tool wherein a tray engaging member and a paint pot or refill engaging member are effective to eject said pot or refill upon coactive application to such parts.

What we claim is:

1. A paint refill ejector comprising relatively movable members having handles, spaced jaw members on one handle and arranged to be engaged with the upper side of a paint receptacle supporting tray on opposite sides of the paint

receptacles which are to be ejected from said tray, an ejector jaw on the other handle and arranged to engage the under sides of said receptacles and to eject the same between spaced jaw members upon appropriate movement of said handles, and a cross member joining said spaced jaw members at the outer ends thereof and having an inwardly extending portion lying above the plane of the tray engaging faces of the jaws for contacting the paint receptacle when the latter is ejected between said jaws.

2. A paint refill ejector comprising relatively movable handles, spaced jaw members on one handle and arranged to be engaged with the upper side of a paint refill supporting tray on opposite sides of the paint refill which is to be ejected from said tray, an ejector jaw on the other handle and arranged to engage the under side of said refill and to eject the same between said spaced jaw members upon appropriate movement of said handles, and a cross member connecting the outer ends of said spaced jaw members and having its uppermost edge disposed inwardly of its lowermost edge and adapted to be engaged by the refill when the latter is ejected between said jaw members.

3. A tool of the character described comprising: a paint pot engaging member, a member for engaging the tray which supports said pot, means for manipulating said members while engaged with said pot and tray, to eject the pot upwardly from the tray, and a pot engaging portion located above the plane of the tray engaging face of the tray engaging member for contacting an end of a pot when the latter is upwardly ejected from the tray by said pot engaging member, whereby to arrest further upward movement of said end of the pot and direct the pot bodily forwardly and outwardly therefrom.

4. A tool for ejecting paint pots from supporting trays therefor comprising a tray engaging member adapted to be engaged with the upper side of a paint pot supporting tray and having an opening therein thru which paint pots may be ejected, a paint pot ejecting jaw arranged to be engaged with the under side of a paint pot which is in registration with the opening in said member, said member having tray engaging portions arranged to be disposed in laterally spaced relation to said paint pot and other portions disposed above the plane of said tray engaging portion and in the path of movement of the paint pot when the latter is ejected thru the opening of said member, and means connecting said member and said jaw for relative movement.

JAY C. PERRIN.
EARL ELMER DISBROW.