

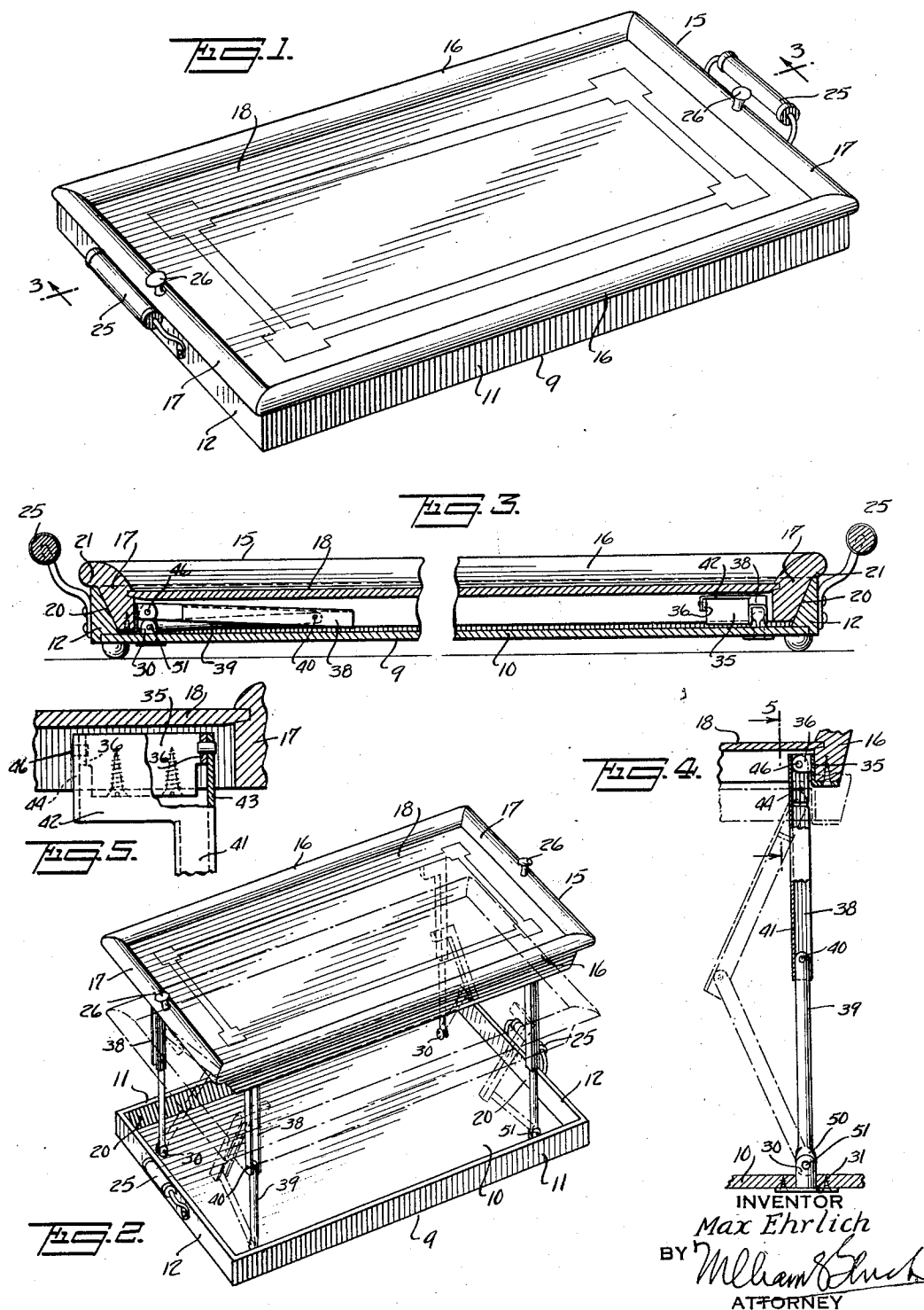
June 7, 1932.

M. EHRLICH

1,862,010

MULTIPLE TRAY

Filed March 13, 1930



INVENTOR  
Max Ehrlich  
BY *William Ehrlich*  
ATTORNEY

## UNITED STATES PATENT OFFICE

MAX EHRLICH, OF WOODHAVEN, NEW YORK

## MULTIPLE TRAY

Application filed March 13, 1930. Serial No. 435,488.

My present invention relates generally to a carrier and more particularly to a multiple tray carrier.

The general object of my invention is the provision of a carrier made up of a plurality of trays so associated and related that the trays can be maintained in spaced superposed relation for multiple tray carrier purposes or can be nested one within the other so as to function as and give the effect of a single tray.

Another object of my invention is the provision of an arrangement of a plurality of trays, so constructed and arranged that they can be nested one within the other to function as and give the effect of a single tray.

The general object of my invention is a provision of a new and improved tray of the character set forth.

For the attainment of these objects and such other objects as may hereinafter appear or be pointed out, I have illustrated one embodiment of my invention in the drawing wherein—

Figure 1 is a perspective view of my tray assembly fully collapsed;

Figure 2 is a view similar to Figure 1 showing the carrier expanded to provide two trays;

Figure 3 is a vertical section taken on line 3—3 of Figure 1;

Figure 4 is a vertical sectional view of one corner of the tray of Figure 2; and

Figure 5 is a section taken on line 5—5 of Figure 4.

Upon viewing Figure 2 of the drawing, it will be observed that my carrier provides two trays and connecting means therebetween so arranged and constructed that the two trays can be either maintained spaced as shown in Figure 2 to provide a plurality of tray members or can be nested as shown in Figure 1 so as to give the carrier all the aspects of the conventional single tray for general use.

The lower tray member 9 comprises the base or bottom 10, the opposed side walls 11, and the opposed end walls 12 all constructed of any preferred or desired material and secured together in any desired manner to form the tray.

The upper tray member 15 is made up of the opposed side walls 16 and the opposed end walls 17 and a bottom 18 which as shown in Figure 3 of the drawing is supported intermediate of the top and bottom of the end and side walls so as to provide a depression or space thereabove as well as a space therebelow. The bottom 18 is supported in a channel formed in the end and side wall assembly, as shown on Figure 3.

The opposite inside faces 20 of the opposed side walls 12 of the lower tray are inclined outwardly and oppositely and diverge upwardly as do also the inside faces of the opposed end walls 12 of said tray. The outside surfaces of the opposed side walls 16 of the upper tray 15 are inclined downwardly and inwardly so as to provide outer, downwardly converging walls and the outside surfaces of the opposed end walls 17 of this tray 15 converge similarly. The parts are so dimensioned and contoured that the upper tray member 15 can be received within the lower tray member 10 and nested therein. As shown clearly in Figure 3 of the drawing, the downwardly converging outer faces of the upper tray 15 fit snugly within the inner upwardly diverging faces of the lower tray 9. It will be observed upon studying Figure 3 that the flange 21 of the upper tray member seats on top of the side and end walls 11 and 12 of the lower tray to complete the nested assembly. This flange 21 extends outwardly beyond the perimeter of the lower tray member.

From the description thus far given, it will be understood that the lower and upper trays are so dimensioned, contoured and related that when brought together into nested relation as shown in Figure 3 of the drawing, they will have the aspect of a single tray of the conventional character and which has been illustrated in Figure 1 of the drawing. This simulation of the conventional tray is enhanced by the effect of the overhanging flange 21.

On the outside of the end walls 12 of the lower member are mounted the handles 25 which serves as a carrier not only for the lower tray when by itself but also for the en-

tire assembly, whether collapsed as in Figure 1 or extended as in Figure 2.

The upper tray is provided centerly of the end walls 17 with member such as the knobs 26 by which the upper tray can be lifted from its nested association with the lower tray.

I will now describe my arrangement for maintaining the upper and lower tray members in spaced superposed relation as shown in Figure 2, but before doing so I will premise that this arrangement includes the employment of pivoted assemblies which connect the corresponding corners of the upper and lower trays and which forms spacing members when extended.

Posts 30 are supported in the bottom 10 of the lower tray 9 adjacent each corner and in the manner shown in detail in Figure 4 of the drawing. These posts 30 extend through the bottom and are each anchored thereto by means of a face plate 31 secured to the lower face of the bottom in any preferred or desired manner as by screws. The upper ends of each of the posts 30 is slotted or bifurcated and upon viewing Figure 2 of the drawing, it will be observed that the slots or bifurcations in each post is at right angles to the corresponding slot in each of the posts on either side thereof. The reason for this will be pointed out shortly.

Anchored to the lower surface of the upper tray 15 are the supports 35 (see Figures 4 and 5). These supports are in the form of bracket members fastened to the lower surface of the end and side walls respectively of the upper tray members 15 and are provided with forwardly extending ears 36.

The spacing assembly for the two trays is shown very clearly in Figures 2 and 4 and comprises two members 38 and 39 pivoted to each other at 40 to form a knee joint therebetween. The members 38 are channeled members with the bottom 41 of each channel on the inner side so that the joint can break only inwardly and not outwardly. The channeled member 38 is each enlarged at the upper end as shown at 42 in Figure 5 and is each provided with flanges or side walls 43 or 44 spaced apart a sufficient distance so as to embrace the ears 36 of the corresponding upper bracket support. From these ears, each channel member is supported for pivotal movement by means of the pins 46.

Each lower member 39 is flattened at its lower end as shown at 50 and this flattened end is received within the slot or bifurcation at the upper end of the corresponding post 30 and is pivoted thereto by means of the pivot pins 51.

It has already been pointed out that the slot in the upper end of each post 30 is in a vertical plane at right angles to the plane of the slot on either side thereof. It will further be observed that these slots generally are

parallel to the adjacent side. The joint between the levers 38 and 39 will therefore break only inwardly and only then in the direction of the slot so that the already pointed out position of the slots causes each lever to break in a direction of right angles to that of the lever assembly on either side thereof. As result of this arrangement the accidentally collapse of a tray assembly is prevented and it is only after each of the knee joints have been broken successively in each of the four possible directions that the tray can be fully collapsed.

The space provided below the bottom 18 of the upper tray as shown clearly in Figure 3 serves to receive within it the lever assemblies 38 and 39 when the trays are fully collapsed. This is an important feature of my invention because it eliminates any substantial increase in the height of the tray.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent is—

1. In a device of the character described, a plurality of trays so contoured and dimensioned that one tray can be nested within the other so as to give the effect of a single tray and means for holding said trays in spaced superposed relation said means comprising collapsible elements to hold the trays either in extended or nested relation, the upper tray having an overhanging flange which extends outwardly beyond the periphery of the lower tray when said elements are collapsed.

2. In a device of the character described, a plurality of trays so contoured and dimensioned that one tray can be nested within the other so as to give the effect of a single tray and means for holding said trays in spaced superposed relation, said means comprising collapsible elements to hold the trays either in extended or nested relation, said trays when nested having the bottom portions thereof spaced apart so as to receive said collapsible elements, within said space.

3. A device of the character described, comprising, in combination, a plurality of trays, collapsible means for maintaining the trays in spaced relation, said means when collapsed permitting the trays to assume a nested relation, said trays when nested providing a space between the bottoms thereof within which said means can be received.

In witness whereof I have hereunto signed my name this 11th day of March, 1930.

MAX EHRLICH.