

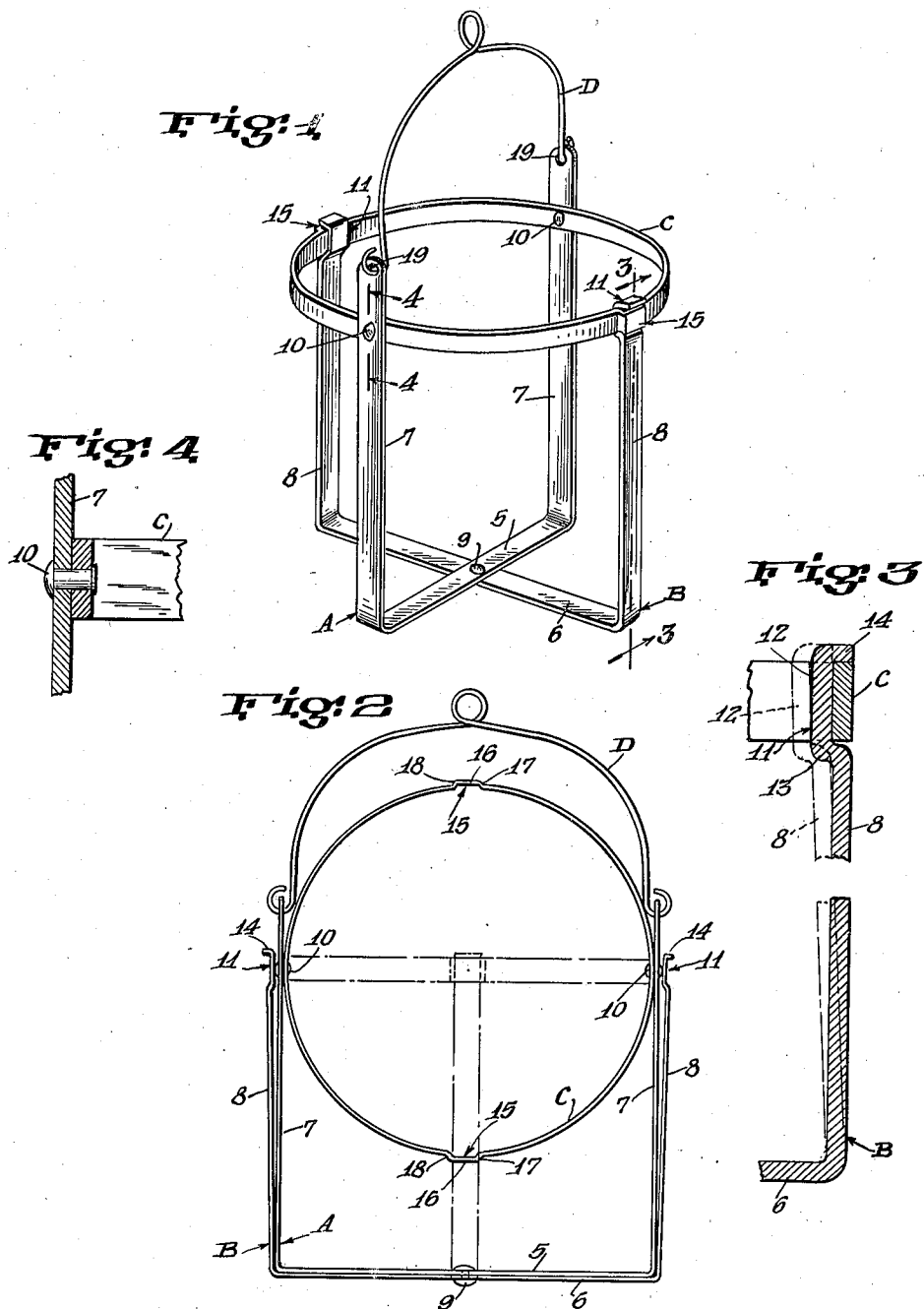
Aug. 23, 1938.

D. LEVOW

2,127,607

HOISTING FRAME

Filed Jan. 29, 1937



INVENTOR.

David Levow

BY

David Levow
a.

ATTORNEY.

UNITED STATES PATENT OFFICE

2,127,607

HOISTING FRAME

David Levow, New York, N. Y.

Application January 29, 1937, Serial No. 122,923

4 Claims. (Cl. 294-67)

This invention relates to improvements in hoisting frames, being particularly directed to a collapsible unit formed of interesting elements capable, upon assembly, to provide a rigid and firmly reinforced construction.

Specifically, it is an object of this invention to provide for hoisting frames incorporating spaced carrier bars and a reinforcing band cooperating with each of said carrier bars, the respective bars and reinforcing element being separable with respect to one another and capable upon collapse of the hoisting frame of interesting assembly in a minimum of space.

These and other advantages, capabilities and features of the invention will appear from the subjoined detailed description of one specific embodiment thereof illustrated in the accompanying drawing, in which

Figure 1 is a perspective view of the hoisting frame.

Figure 2 is a front elevation of the hoisting frame as collapsed.

Figure 3 is an end elevation partly in section taken along lines 3-3 of Figure 1.

Figure 4 is an end elevation in section taken along lines 4-4 of Figure 1.

Referring to the reference characters in the drawing, the hoisting frame is comprised of a plurality of U-shaped support members A and B and a reinforcing ring C. The base 5 of support member A is narrower in width than base 6 of support member B, to permit nesting, while the arms 7 of the member A are longer than the corresponding arms 8 of member B.

Support members A and B are apertured centrally of their bases 5 and 6 and a rivet 9 passed therethrough so as to mount A within B for pivotal displacement angularly of either of the same about the rivet as a vertical axis. Adjacent the end of arms 7 of support bar A there is mounted for pivotal movement as by means of rivets 10, the reinforcing ring C, whereby such reinforcing ring may be angularly displaced about a horizontal axis between arms 7.

The upper free extremities of arms 8 of support bar B are bent inwardly to form channels 11 bounded by side walls 12 and end walls 13 and 14; and associated therewith are channel formations 15 on diametrically opposite portions of the ring C, bounded by side wall 16 and end walls 17 and 18, the channel formations 15 of the ring C being slightly longer than the width of the arms 8 of support bar B, and the channel formations 11 of arms 8 being slightly longer than the width of ring C, so that, as shown in Figures 1 and 3, the

surfaces of arms 8 and the ring C may be brought into firm interlocking relationship at the channel formations.

A handle D is mounted in eyes 19 at the free extremities of arms 7.

Referring to Figures 1 and 2, the operations for expanding and collapsing the hoisting frame are as follows: to expand a construction from the collapsed position shown in Figure 2 to that of Figure 1, support bars A and B are displaced angularly with respect to one another about pivot 9. Thereafter, ring C is angularly displaced about pivot 10 to a position substantially but not quite horizontal to the bases of the support bars. Bars 8 are at such time in position so that the channel formations 11 therein are adjacent the channel formations 15 of the ring C. The arms 8 are then flexed inwardly, as shown in Figure 3, and allowed to spring out to provide interlocking between the surfaces defining the channels of the arms and the ring.

To collapse the construction shown in Figure 1 to that of Figure 2, the reverse process is carried out; arms 8 of support bar B are flexed inwardly (see Figure 3) until the surfaces defining the channels are separated, support bars A and B displaced about their pivot 9 to parallelism with the arms of support bar B disposed exteriorly of arms 7 of support bar A, and ring C displaced about the horizontal axis to vertical position between arms 7 of support bar A and in line therewith.

It is obvious that various changes and modifications may be made to the details of construction without departing from the general spirit of the invention as set forth in the appended claims.

I claim:

1. A collapsible hoisting frame comprising a plurality of support members capable of nesting one in the other, said support members being pivoted to each other at their bases, whereby said support members may be angularly displaced about a vertical axis with respect to one another, a reinforcing ring mounted on one of said support members for angular displacement about a horizontal axis, and interlocking elements formed integrally with said reinforcing ring and the other of said support members adapted to cooperate for latching the same when the ring is displaced to the horizontal plane.

2. A collapsible hoisting frame comprising a plurality of support members capable of nesting one in the other, a pivot mounting in the bases of the support members, whereby the same may be angularly displaced about the vertical axis with respect to one another, a reinforcing ring pivot-

ally mounted to one of said support members for angular displacement about the horizontal axis and channel formations on the ring, and the other of said support members, for causing interlocking of said other support member and ring when the latter is in the horizontal plane.

3. A collapsible hoisting frame comprising a plurality of U-shaped body members of different width and the same structural formation, whereby said support members may be nested, a pivot member passing centrally of the bases of said support members to permit angular displacement thereof with respect to a vertical axis, a reenforcing ring pivotally mounted at diametrically opposite portions to the arms of the narrower of said support members adapted to nest within said narrower support member, said reenforcing ring being capable of angular displacement about a horizontal axis, said reenforcing ring and the wider of said support members having integral

interlocking elements for latching the same when the reenforcing ring is displaced to a horizontal plane.

4. A collapsible hoisting frame comprising a plurality of support members capable of nesting one onto the other, said support members being pivoted to each other at their bases, whereby said support members may be angularly displaced about a vertical axis with respect to one another, a reenforcing ring mounted on one of said support members for angular movement about a horizontal axis, the other of said support members being resilient and displaceable at its free ends upon contact with the reenforcing ring, and interlocking elements on said reenforcing ring and said last named support member for latching the same when the reenforcing ring is displaced to the horizontal plane and into pressure contact with said last named support member.

DAVID LEVOW. 20