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CARRYING DEVICE

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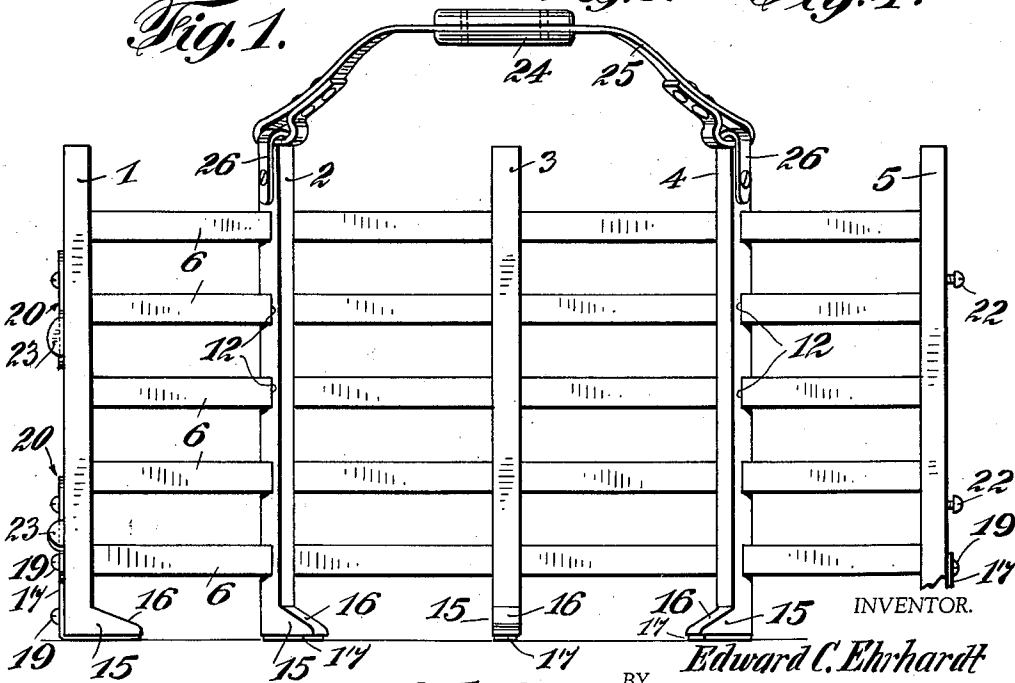
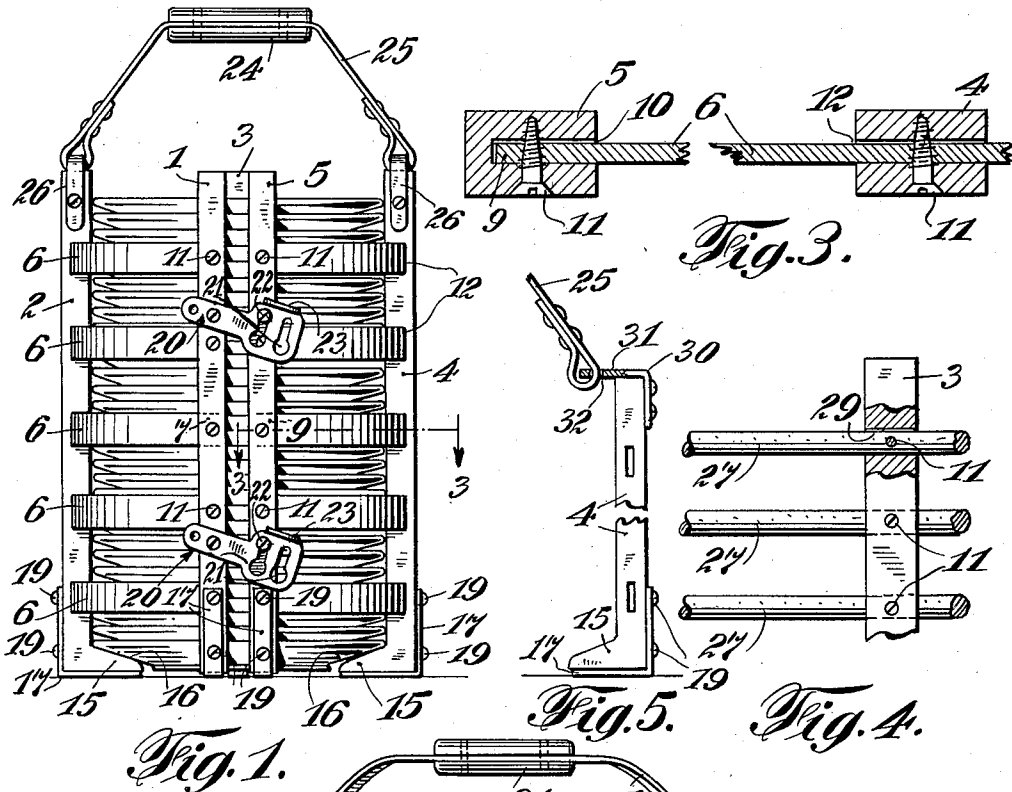


Fig. 2.

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CARRYING DEVICE

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7 Claims. (Cl. 224-45)

The present invention relates to carrying devices and more particularly to a device for carrying a stack of plates or the like.

Hotels and restaurants serve meals to large groups of people making it necessary to set a great number of plates. Considerable difficulty is experienced in carrying stacks of plates and distributing them because the plates are heavy and are cumbersome to carry. Breakage of plates in such establishments, with present methods, is substantial. In many instances the dining room is on a different floor or at a point substantially removed from the place where the plates are washed or stored whereby the plates must be carried a considerable distance. It is also desirable that the plates after being cleaned, be transferred in the most sanitary manner. Caterers who deliver plates and other equipment to a place where the meal is to be served, also experience difficulty in handling the plates conveniently without breakage.

The present invention aims to overcome the above difficulties by providing a simple inexpensive device adapted to carry stacks of plates and the like in a sanitary and convenient manner, and further aims to provide carrying devices wherein plates may be stacked and transported from one place to another without breakage.

An object of the invention is to provide a simple inexpensive device for carrying stacks of plates and the like.

Another object of the invention is to provide a carrying device which is light in weight and which can be conveniently folded together or collapsed when not in use.

Another object of the invention is to minimize the breakage of dishes in hotels or similar establishments.

Another object of the invention is to provide a sanitary carrying device which may be readily cleaned.

A further object of the invention is to provide a carrying device in which the articles to be transported can be quickly arranged, securely locked against movement and protected against breakage during transit.

Other and further objects of the invention will be obvious upon an understanding of the illustrative embodiment about to be described, or will be indicated in the appended claims, and various advantages not referred to herein will occur to one skilled in the art upon employment of the invention in practice.

A preferred embodiment of the invention has been chosen for purposes of illustration and de-

scription and is shown in the accompanying drawing, forming a part of the specification, wherein

Fig. 1 is a front elevational view illustrating a preferred embodiment of the invention for carrying a stack of plates or the like;

Fig. 2 is an elevational view illustrating the preferred embodiment shown in Fig. 1 in open position with the plates removed therefrom;

Fig. 3 is a sectional view taken along the line 3-3 of Fig. 1;

Fig. 4 is a fragmentary elevational view partly in section illustrating another embodiment of the invention; and

Fig. 5 is a fragmentary elevational view showing another way of attaching a handle to the carrying device.

Referring more particularly to the drawing there is shown in Figs. 1 and 2 a device for carrying a stack of plates or the like which comprises a plurality of staves or upright members adapted to form guides or stacking members for holding the stack of plates in vertical alignment. Preferably, five staves designated as 1, 2, 3, 4, and 5, are utilized as shown herein, but any other suitable number of staves may be utilized if desired. These staves may be made of wood or other suitable material adapted to be readily cleaned and kept in sanitary condition.

In order to provide a frame for stacking the plates, the staves are operatively connected preferably by a plurality of flexible members 6 such as straps or the like, the number of straps employed depending upon the height of the staves and the distance it is desired to space the straps. As illustrated more particularly in Fig. 3, the free ends 7 at one end of straps, may be attached to the stave 1 at one side of the frame and the free ends 9 at the other end of the straps, are attached to the stave 5 at the other side of the frame. Preferably, the ends of the straps are attached by providing slots or recesses 10 extending partially or completely through the staves which are adapted to receive the ends of the straps and suitable bolts or screws 11 are extended transversely through the staves and the ends 7 and 9 of the straps. If desired, the straps may be secured to the staves in any other suitable manner or wood pegs, nails, clamps or the like may be substituted for the screws 11 shown herein. The staves 2, 3, and 4 preferably are operatively connected to the straps at spaced portions intermediate the ends of the straps by forming slots or apertures 12 in the staves and extending the straps there-through. The straps likewise may be secured to

the staves 2, 3, and 4 by suitable screws 11 or the like which extend transversely through the staves and the straps. In this manner a foldable frame is provided adapted to be placed about the stack of plates and to be utilized as a carrying device as described hereafter.

The lower ends of the staves or upright members are provided with legs having inwardly extending members 15 adapted to engage the underside of a plate or the like. Preferably, the legs are formed integral with the staves to reduce the number of parts of the device to a minimum but if desired, may be made separately and attached thereto in any suitable manner. The legs preferably have tapered or flared engaging portions 16 adapted to conform substantially to the underside of the plate so that the plate will rest firmly thereon. If desired, the legs may be reinforced by suitable brackets or angle irons 17 secured to the staves and legs by screws 19 or the like.

In order to secure the frame or carrier about a stack of dishes, the staves 1 and 5 at the respective ends of the frame are provided with a suitable latch or other locking device adapted to lock staves 1 and 5 together. Preferably, two latches are utilized, one at the upper end of the staves and one at the lower end to insure against accidental separation of the staves. The latch illustrated herein comprises a member 20 pivoted on the staff 1 having one or more notches or slots 21 therein for engaging a projection such as the head of a bolt or screw 22 on the staff 5. This type of locking device is simple and inexpensive and securely locks the carrier frame around the plates. By providing several slots the effective periphery of the frame may be adjusted to accommodate plates varying in size. The latch member 20 may also be provided with a flange or knob 23 to facilitate operating the latch.

When the carrier is secured about a stack of plates and staves 1 and 5 are locked together, they will be substantially diametrically opposite the staff 3 and staves 2 and 4 will be diametrically opposite each other. To facilitate carrying the device a handle member 24 is attached by means of strap portions or the like 25 to the staves 2 and 4, and extends diametrically across the stack to evenly distribute the weight of the plates on each side of the handle. Preferably, the strap parts 25 may be fastened to the staves by inserting the ends thereof through suitable link members 26 secured to the staves 2 and 4 and then securing the free ends of the strap portions to the adjacent portions of the strap in any suitable manner.

In Fig. 4 another embodiment of the present invention is shown wherein substantially circular flexible members 27, such as ropes or the like, are inserted through apertures 29 in the upright staves and secured thereto. An advantage of this construction is that it is easier to make because the circular apertures 29 may be drilled through the staves more conveniently.

In Fig. 5 the handle 24 is shown attached to the staves 2 and 4 in a different manner. The staves 2 and 4 are each provided with a bracket member 30 having an inwardly extending arm 31 provided with a slot 32 for connecting the handle straps 25. An advantage of this construction is that when the device is carried, the tendency of the staves to spread at the bottom of the frame is minimized because the arms 31 provide leverage tending to hold the staves together and in upright position.

In using the carrying device, a number of plates or the like, desired to be carried, are placed on top of each other to provide a stack. The device is then placed about the periphery of the plates so that the legs or extensions extend underneath the lowermost plate. Thereafter the locking devices are closed to enclose the stack of plates and the handle may be grasped to lift the carrier and carry it. After the plates are transported to the desired place, the device is set down, the latches are opened, and the frame is folded away from the stack. In this manner a stack of plates may be carried very conveniently for a substantial distance with minimum effort and without danger of breakage. In some instances, caterers may desire to transport plates to a party, banquet or the like which is a substantial distance from their establishments. The carrier described above is well adapted for this purpose since the plates can be packed therein and conveniently carried therein to and from the transportation vehicle.

It will be seen that the present invention provides a simple inexpensive device for carrying stacks of plates and the like. The plates may be securely stacked therein and are protected against breakage. The device may be made to accommodate any desired size of plate or dish. It may be made of material which is readily cleaned and is sanitary in appearance. The carrying device is rugged in construction and can readily withstand any rough usage to which it may be subjected.

As various changes may be made in the form, construction and arrangement of the parts herein without departing from the spirit and scope of the invention and without sacrificing any of its advantages, it is to be understood that all matter herein is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim:

1. In a device of the class described, the combination of a pair of upright members, a plurality of substantially flexible members each having one end thereof connected to one of said upright members and having the other end thereof connected to the other of said upright members, an upright member connected to said flexible members intermediate the ends thereof, said upright members having means at the lower end thereof for supporting a stack of dishes or the like, said upright members and flexible members being adapted to be placed about the stack of dishes, and connecting means associated with said pair of upright members for connecting said pair of upright members to form a carrying frame for the stack of dishes.

2. In a device of the class described, the combination of a pair of upright members, a plurality of substantially flexible members each having one end thereof connected to one of said upright members and having the other end thereof connected to the other of said upright members, a single upright member connected to said flexible members intermediate the ends thereof, said upright members having means at the lower ends thereof for supporting a plate and the like, said upright members and flexible members being adapted to be placed about a stack of dishes or the like, connecting means associated with said pair of upright members for connecting said pair of upright members to form a carrying device for the stack of dishes, a second pair of upright members, one of said second pair of upright members being intermediate said single upright member and one of said first pair of up-

right members and the other of said second pair of upright members being intermediate said single upright member and the other of said first pair of upright members, and a handle attached to said second pair of upright members for carrying said device.

3. In a device of the class described, the combination of a plurality of staves having apertures therein, a plurality of flexible members extending through said apertures and secured to said staves, said staves and flexible members being adapted to be placed about a stack of dishes or the like to provide a holder therefor, and legs at the lower ends of said staves extending radially inwardly to provide supports for the dishes or the like.

4. In a device of the class described, the combination of a plurality of staves having apertures therein, a plurality of flexible members extending through said apertures and secured to certain of said staves, said staves and flexible members being adapted to be placed about a stack of plates or the like to provide a carrier therefor, legs at the lower ends of said staves extending radially inwardly to provide supports for a plate or the like, and reinforcing means extending about the lower ends of said staves and said legs.

5. In a device of the class described, the combination of a plurality of upright staves, a plurality of strap members secured to said staves, the ends of said strap members being secured to certain of said upright staves, short rigid feet at the lower ends of said staves, said staves and strap members being adapted to be placed about a stack of dishes or the like, and means on the staves to which the ends of the straps are attached for locking said end staves together to provide a carrier for the stack of dishes.

6. In a device of the class described, the combination of a plurality of upright members, a strap member, means for securing said strap member to said upright members; each end of said strap member being secured to an upright member so that said upright members and said strap member are adapted to be placed about a stack of plates or the like to provide a carrier therefor, a radially inwardly extending projection on the lower end of each of said staves adapted to provide a support for the bottom plate of the stack, and locking means on said upright members having the ends of the strap members secured thereto for locking said last upright members together.

7. In a device of the class described, the combination of a pair of upright members, a plurality of substantially flexible members each having one end thereof connected to one of said upright members and having the other end thereof connected to the other of said upright members, a second pair of upright members connected to said flexible members intermediate the ends thereof and so positioned that when said end upright members are brought together to form a carrier in the shape of a circle adapted to embrace a stack of plates so that said intermediate uprights are diametrically opposite each other, said upright members having means at the lower ends thereof for supporting a stack of plates or the like, a handle connected to said intermediate upright members for carrying the device, and means associated with the end upright members for locking said upright members together when said device is placed about the stack of plates.

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