

June 13, 1950

E. J. RAU
FLATWARE TRAY

2,511,542

Filed Aug. 14, 1948

2 Sheets-Sheet 1

Fig. 1

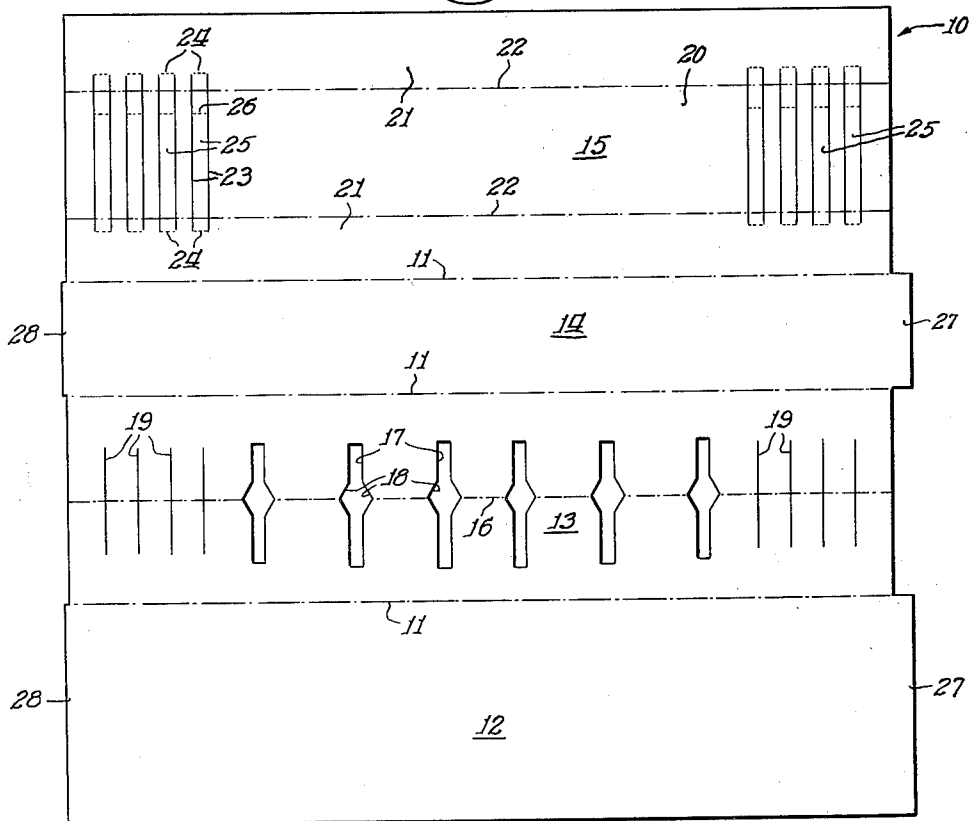


Fig. 2

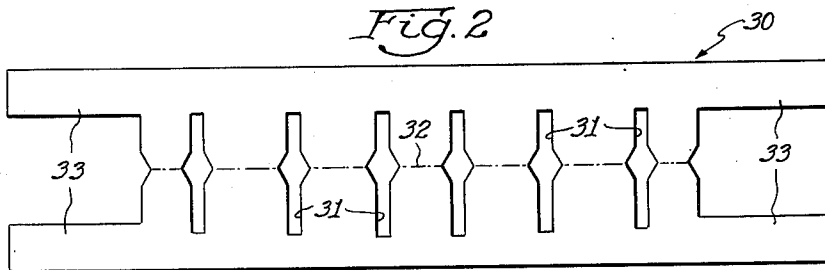
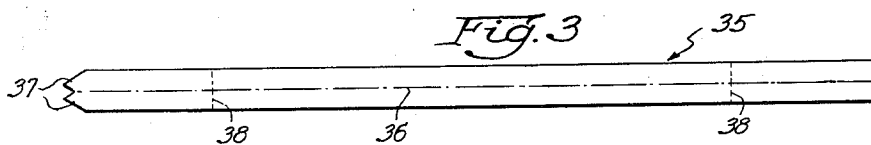


Fig. 3



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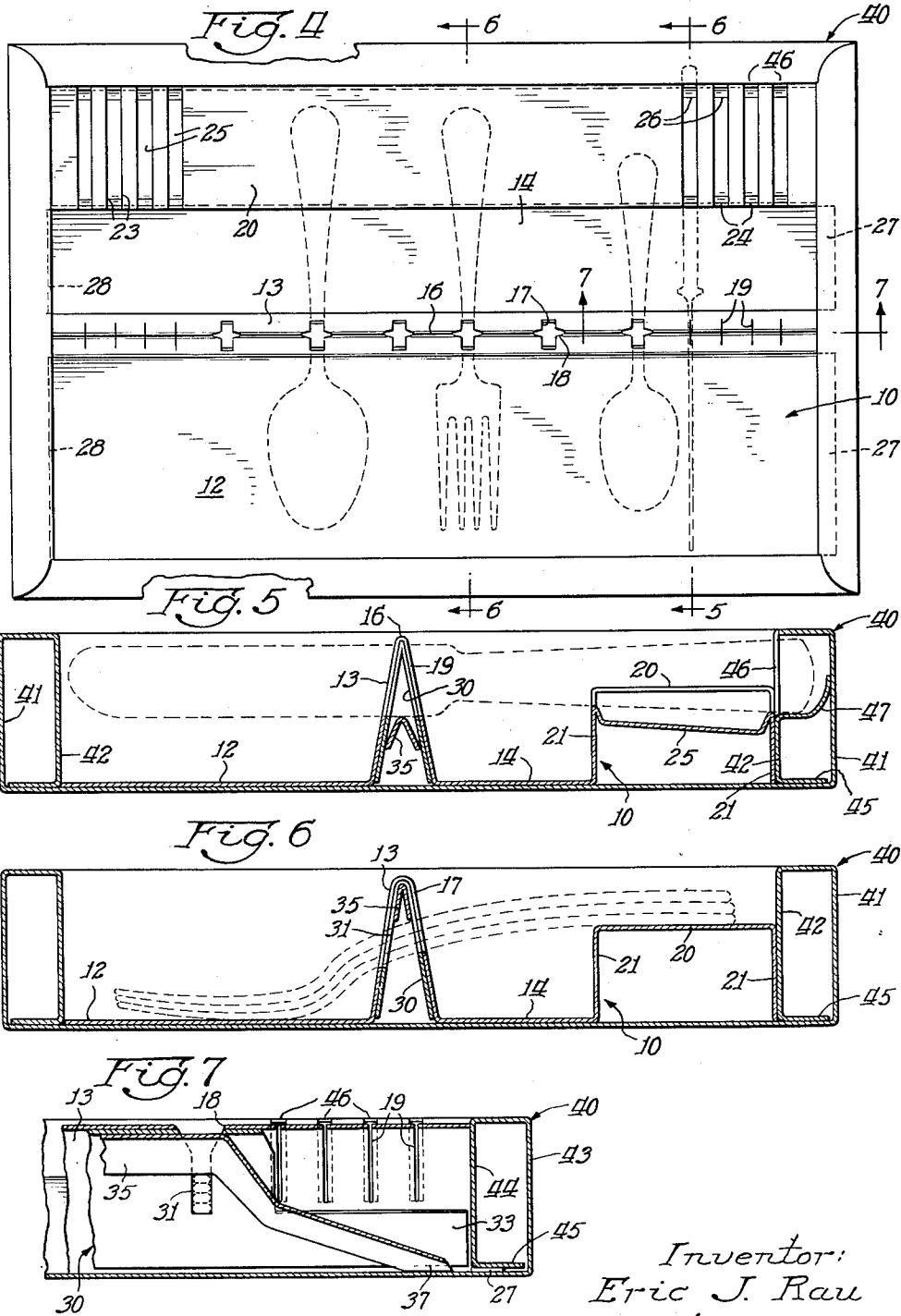
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UNITED STATES PATENT OFFICE

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FLATWARE TRAY

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9 Claims. (Cl. 206—45.19)

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The present invention relates to a flatware holding tray, and more specifically to a tray and insert construction for holding and locking flatware such as forks, spoons, and the like in a tray or similar container, such construction being formed of paperboard or similar material. The construction includes an insert proper made of a suitable sheet of paperboard which is formed to provide in the tray a raised portion slotted to accommodate the shank portions of flatware articles, and preferably also a raised ledge to support the handle ends of such articles, and a separate locking strip which is disposed between the shank portions and the top of the raised portion to block the slot openings and thus prevent movement of the articles out of the slots. The construction preferably also includes a separate reinforcing element for the raised portion. The locking strip and reinforcing element are preferably but not necessarily formed of the same material as the insert proper. The insert may be formed to accommodate knives or similar bladed flatware articles, and the tray may be adapted for cooperation with the insert to secure such articles, as in the illustrated embodiment of the invention.

Among the objects of the invention are to provide a relatively inexpensive tray-like container and insert construction which holds flatware articles securely in place during shipment and handling; which substantially prevents petty thievery of articles locked therein; which presents the articles to a prospective purchaser or user in an attractive manner; which may be utilized for display of the contents at unusual angles, with resulting increase in buyer attention; which is cheap enough not to add to the sales price of its contents, yet strong enough to allow the tray to serve as a multi-use container for storage of the articles; which includes reinforcing means to aid in supporting the weight of the articles; which utilizes separate locking means readily insertible into locking position without snagging on the articles or on parts of the construction; which provides simple means for securing the insert in the tray; in which the tray is adapted to aid in retaining at least some of the articles in place; the parts of which may be easily and quickly assembled; and to provide blanks for the several parts of the construction which are readily erectable to the desired form and conveniently assembled.

Other and further objects and advantages of the invention will be apparent to those skilled in the art from the following description and the accompanying drawings, in which:

Figure 1 is a plan view of a blank for the insert proper;

Figure 2 is a plan view of a blank for a reinforcing bridge element;

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Figure 3 is a plan view of a blank for the locking strip;

Figure 4 is a plan view of the assembled insert construction in position in the tray;

Figure 5 is an enlarged vertical sectional view taken substantially in the plane of line 5—5 of Figure 4;

Figure 6 is an enlarged vertical sectional view taken substantially in the plane of line 6—6 of Figure 4; and

Figure 7 is a fragmentary enlarged vertical sectional view taken substantially in the plane of line 7—7 of Figure 4.

The blank for the insert 10, shown in Figure 1, comprises in this case a substantially rectangular sheet of paperboard with parallel score lines 11 defining a first base panel 12, a saddle portion panel 13, a second base panel 14, and a ledge portion panel 15. A central longitudinal score line 16 is provided in the panel 13 for ease in folding the panel to saddle portion form, and defines the ridge of the raised saddle portion when the blank is erected. A plurality of slots 17 are formed in the panel 13 extending transversely thereof and across the score line 16. At the line 16, each slot is widened by means of generally V-shaped cuts 18 in its opposed edges, so that the portions of the slots on opposite sides of the line 16 are flared. The slot portions on the side of the line 16 adjacent the panel 12 are longer than those on the other side, for a reason explained hereinafter. A plurality of transverse slits 19 are also cut in the panel 13 extending the same distance on each side of the score line 16.

The panel 15 is divided into a central ledge panel 20 and ledge support panels 21 along each edge thereof by two longitudinal score lines 22. Pairs of parallel slits 23 are cut in the panel 15, extending entirely across the ledge panel 20 and into the support panels 21. The ends of each pair of slits 23 are connected by score lines 24 parallel to the lines 22. Strips of material 25 are thus defined which may be depressed below the ledge panel 21 in erected condition of the blank to provide slots adapted to receive the handles of knives or similar bladed flatware articles which may have the blades thereof inserted in the slits 19. Transverse score lines 26 facilitate such depression of the strips 25. The knife handle slots are of course aligned with the slits 19. Corresponding ends of each of the panels 12 and 14 project a substantial distance beyond the ends of the other panels. These projections are designated 27. The opposite ends of panels 12 and 14 project to a lesser extent, as shown at 28. The projections 27 and 28 are provided for securing the insert assembly in a tray, as hereinafter explained.

The blank for the reinforcing bridge element 30, Figure 2, comprises a single panel correspond-

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ing generally to the panel 13, having substantially the same length and width. Slots 31 are cut in the bridge element blank corresponding in location, size, and shape to the slots 17, so that they will register therewith upon assembly of the insert construction. A central score line 32 extends longitudinally of the element blank to facilitate bending thereof into erected condition. As shown, this element has portions cut away at its ends to provide legs 33, the longitudinal edges of the element 30 being unaltered as to length. This prevents interference with insertion of knife blades or the like in the slits 19 of the erected saddle portion, as will be seen from Figure 7. The portions cut away may be retained, and slits cut therein for registry with the slits 19, if desired, but such a construction is apt to result in loss of time in inserting blades into the slits.

The locking strip 35 is shown in blank form in Figure 3. It is of substantially the same length as the panel 13 and the bridge element 30, but considerably narrower. A central longitudinal score line 36 is provided for ease in bending the blank to the erected strip form. One end of the blank is cut to provide a pointed end 37 on each half of the strip, formed in each case by intersecting angular cuts extending from the longitudinal edge and the line 36. This construction facilitates insertion of the strip into its locking position, as more fully explained hereinafter. It will be obvious that the pointed construction may be provided on both ends of the strip, if desired. Spaced from the ends of the strip are transverse score lines 38 to facilitate bending the locking strip as explained hereinafter. The portion of the strip between the lines 38 is of sufficient length to extend across all the slots 17 and 31.

In Figure 4 the insert construction is illustrated completely assembled in a tray or tray-like container 40, which may be of any desired construction. The tray 40 is shown as of the collapsible hollow wall type, with outer and inner side walls 41 and 42, and outer and inner end walls 43 and 44. A flap 45 extends from the bottom edge of each inner wall. The flaps of one pair of opposed walls are secured to the bottom of the tray 40, and the flaps of the other pair of walls are frictionally engaged with adjacent parts of the tray to hold the tray in set up condition. In the present case, the flaps of the inner side walls 42 are secured to the tray bottom. Articles of flatware are shown in dotted lines to facilitate understanding of the invention. As will be seen from this figure, and from Figures 5 to 7 inclusive, the blank for the insert 10 is folded on the score lines 11 and also on the lines 16 and 22 to provide a ledge 20 extending along one of the tray walls 42, and a raised saddle portion 13 of inverted V-shape in cross section. The ledge is held at a convenient height below the top of the tray. The height of the saddle portion is substantially that of the tray. The base panels 12 and 14 rest on the tray bottom, and hold the saddle portion in position. The bridge element 30 is folded on its score line 32 and disposed under the saddle portion with its slots 31 in registry with the slots 17 of the saddle portion, as best shown in Figure 7. The bridge element thus provides a double thickness of material and gives added strength and rigidity to the saddle portion. The bridge element may be employed disposed over the saddle portion if desired, but its disposition as illustrated is deemed preferable.

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Spoons, forks, and similar flatware articles are disposed with their shank portions engaged in the registered slots and the ends of the handles supported on the ledge 20. A plurality of similar articles, such as the three forks shown in Figure 6, may be placed one upon another in each slot, although of course more or fewer may be so disposed if desired. The flare provided by the cuts 18, while not necessary, makes insertion of the shanks into the slots more convenient. It will be seen that by reason of the slots not extending equidistantly on both sides of the respective score lines 16 and 32 of the saddle portion and bridge element, the articles are supported at two points. That is, as best shown in Figure 6, the slot ends on opposite sides of the saddle portion are at different heights from the tray bottom, so as to correspond to the curvature of the handles of the articles.

It should be clear that the invention is not limited to a saddle portion and bridge element of cross-sectional inverted V-shape, since the only requirement is that two spaced sides be provided. The cross-sectional shape of the locking strip, of course, should correspond sufficiently to that of the saddle portion to assure a tight lock. The locking strip 35, folded on its longitudinal score line 36, is inserted over the topmost articles in the slots and under the top of the bridge element 30 so as to extend across and block the registered slots, thus preventing upward movement of the articles out of the slots. It will readily be appreciated that by reason of the angled edges of the pointed end of the strip, or more properly of the pointed end 37 of each side of the strip, the strip 35 may be slipped into position from one end of the saddle portion without snagging on either the slot edges or the articles. The locking strip may be inserted between the saddle portion and bridge element, if desired, and the pointed end construction in such case will also assist in easy insertion. Of course, more than one of the separate locking strips 35 may be employed, if desired, to adapt the specific embodiment to some particular packaging requirement. Both ends of the strip 35 may be bent downwardly on the score lines 38, or only one end may be bent, as desired.

A knife is shown with its blade in one of the slits 19 and its handle engaged in the aligned slot provided in the ledge 20 by depression of a strip 25. Although slots for the knife handles might be provided by simply removing the material forming the strips 25, the presence of the strips is advantageous for two reasons. The appearance is enhanced, particularly if no knives are included in the assortment or set of flatware packaged, and the strips may serve as slings for additional support of knife handles of such shape as to extend farther below the ledge 20 than that illustrated. The knife blade, as shown in Figure 7, bears on the end portion of the locking strip 33 to bend it additionally and thus assure that the strip is securely held by friction against longitudinal movement. As also shown in Figure 7, the cutaway portions of the bridge element 30 provide vertical edges at the inner ends of the legs 33 substantially aligned with the innermost slits 19 in the saddle portion 13, and the legs 33 provide support adjacent the ends of the slits. The element 30 thus provides additional support for the blades, without hindering their insertion into the slits. The knives or other bladed articles are held securely by the frictional engagement of the blades in the slits, as well as the

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engagement of the handles in the slots in the ledge 20.

Vertical slots 46 are formed in the inner wall 42 along which the ledge 20 extends. These slots, as will be clear from Figures 4 and 5, are located so as to receive the butt ends of knife handles disposed in the slots provided in the ledge. The slots 46 may be provided in somewhat the same manner as the slots in the ledge, by parallel cuts. At one end the cuts are connected by weakened lines, and at the other by a third cut, to provide a tongue 47, as shown in Figure 6, which lies in the plane of the inner wall 42 until displaced by the knife handle as it is pushed into place. Of course, the slots 46 might be formed without the tongue 47. The knives or other bladed articles are securely held in the tray construction by the tight frictional engagement of the blades in the slots 19, by the frictional engagement of the handles in the slots of the ledge 20, and by the projection of the handle butts through the slots 46, which may also frictionally engage the butt ends. If desired, either the slots in the ledge or the slots in the wall might be omitted. In the first case, the knife handles would rest on the ledge and extend into the hollow wall, and in the second case the frictional engagement of the handles in the ledge slots would be relied on to hold them in place. The insert 10 is secured in the tray 40 by disposition of the projections 27 under the flap 45 of one wall 44, and of the projections 28 under the flap 45 of the opposite wall 44, as shown in Figures 4 and 7. The relatively wide projections 27 are first inserted below the bottom edge of one wall 44, and the insert 10 urged toward that wall, and then the end of the insert with the projections 28 is moved downwardly to engage those projections under the other wall 44. The walls can yield sufficiently to avoid damaging the projections, and the relatively narrow width of the projections 28 facilitates this operation while providing sufficient material for secure engagement. The inherent resilience of the tray walls causes them to assume their normal positions after the insert 10 has been properly disposed in the tray, so that they engage over the projections 28 as well as the projections 27. The insert assembly may readily be lifted or removed for insertion or withdrawal of the locking strip 35 by urging the insert 10 in the direction of its end having the projections 27 and lifting the opposite end while pushing the wall 44 adjacent the latter end outwardly. The projections 28 are thus freed from their securing engagement with the wall and swing above the top of the tray. In this position, the locking strip 35 may be withdrawn or inserted. If it is desired to remove the insert assembly from the tray, all that is necessary, with the insert in the partially removed position just described, is to move it in the direction of the elevated end so as to withdraw the projections 27 from their securing position under the tray wall.

The insert and bridge element may be erected and assembled and the articles engaged in the registered slots 17 and 31 either before or after insertion in the tray. If the parts are assembled before disposition in the tray, the locking strip 35 may be slipped into place as part of the assembly, but if after, the insert must be raised at least partly out of the tray to permit insertion of the strip, as described above. The knives or other bladed articles may then be dis-

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posed as already described. The bending of the locking strip may be accomplished by the movement of the innermost knife blades into the slots.

In the embodiment illustrated, it will be noted that articles are disposed in alternate slots 17. If the type, number, size and shape of the articles to be packed are known beforehand, the slots can be so spaced as to permit inserting articles in each slot. In many cases, however, it may be impossible to foretell accurately what the flatware assortment will consist of, and the slot arrangement must then be made more or less haphazardly. It may also be pointed out that if desired the articles may be disposed in opposed relation in alternate slots, so that the bowls of spoons or tines of forks, for example, in one slot will lie between the handles of articles in the slots on each side. In such case, two ledges on opposite sides of the saddle portion 13 may be provided to support the handles of articles regardless of how they are disposed.

Obviously, the invention is not limited to the specific forms of the parts disclosed in the illustrated embodiment. The locking means, for example, instead of taking the form of the locking strip 33 as disclosed, might be of any other construction separate from the other parts of the insert assembly, for example a rod, which would provide the same result and mode of operation.

It will be seen that the invention provides an inexpensive means for attractively packaging flatware articles and the like, and at the same time provides a construction by which the articles are securely locked in place so that they will not become scattered and possibly marred during shipment and handling. The locking arrangement also prevents shoplifting or like thievery of articles locked in the tray. The construction permits ready setting up and assembly of the parts and articles, minimizing the time required for packing the articles. By reason of the locking feature, one or several of the packages may be arranged for display purposes at unusual and attention-attracting angles which otherwise would result in the articles being displaced. The construction may also be utilized by the consumer for repeated storage of the articles, if desired, the reinforcement provided by the bridge element 30 being of particular benefit from this standpoint. The above are some of the features of the invention which makes the construction particularly useful and advantageous.

Since certain changes can be made in the foregoing construction and different embodiments of the invention can be made without departing from the spirit and scope thereof, it is intended that all matter shown in the accompanying drawing and described hereinbefore shall be interpreted as illustrative and not in a limiting sense.

What is claimed as new is:

1. An article locking insert for a flatware holding tray, comprising a paperboard sheet having a raised saddle portion, a slot extending transversely of said saddle portion, a bridge element disposed in reinforcing relation to said saddle portion, a slot in said element registering with the slot in said saddle portion, said registered slots being adapted to receive a handle portion of an article of flatware therein below the upper portions of said saddle portion and element, and separate locking means disposed between said

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handle portion and at least one of said upper portions and extending across said registering slots.

2. A flatware holding tray comprising in combination a tray part, a paperboard insert disposed in said tray part having spaced portions based on the tray bottom, a raised saddle connecting said spaced portions, a slot extending transversely of said saddle, a bridge element disposed in reinforcing relation to said saddle, a slot in said element registered with the slot in said saddle, said registered slots being adapted to receive a handle portion of an article of flatware therein below the top of said element, and a separate locking strip extending across said slots and between said handle part and the top of said saddle to prevent upward movement of said article out of said registered slots.

3. A flatware holding tray comprising in combination a tray part, an insert formed of paperboard disposed in said tray part and having spaced portions based on the bottom thereof, a raised saddle joining said spaced portions, a bridge element substantially conforming to said saddle and disposed in reinforcing relation thereto, registering slots extending transversely of said saddle and element, said registering slots being adapted to receive handle portions of flatware articles therein spaced below the top of said saddle, and a separate locking strip disposed in said space and extending across said slots to lock said articles against upward movement out of said slots.

4. A flatware holding tray assembly comprising a tray having a pair of opposed hollow walls with the inner wall members thereof free of the tray bottom, an insert for said tray comprising a pair of spaced base portions resting on the tray bottom, projections on the ends of said base portions frictionally engageable between said inner wall members and tray bottom, a raised saddle portion connecting said base portions, transverse slots in said saddle portion adapted to receive handle portions of flatware articles therein below the top of said saddle portion, and an elongated locking member disposable across said slots between said handle portions and the top of said saddle portion.

5. An insert for a flatware holding tray comprising a sheet of paperboard formed to provide a pair of spaced base portions adapted to rest on the tray bottom, a raised saddle portion connecting said base portions, a raised ledge spaced from said saddle portion extending from one of said base portions and adapted to support handles of flatware articles, a plurality of transverse slots in said saddle portion adapted to receive handle portions of flatware articles therein, a bridge element generally corresponding to said saddle portion disposable in reinforcing relation thereto, a plurality of transverse slots in said bridge element registrable with the slots in said saddle portion and adapted to accommodate said handle portions, and a separate lock strip disposable between said handle portions and the top of said bridge element and extending across said slots to lock said articles against upward movement out of said slots.

6. A locking insert assembly for a flatware holding tray comprising a sheet of paperboard formed to provide a pair of spaced base portions adapted to rest on the tray bottom, a raised saddle portion connecting said base portions, a raised ledge portion spaced from said saddle portion extending from one of said base portions

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and adapted to support handles of flatware articles, a bridge element generally corresponding to said saddle portion and disposable in reinforcing relation thereto, a plurality of registrable transverse slots in said saddle portion and bridge element adapted to receive shank portions of said handles therein, a plurality of transverse slits in said saddle portion and a corresponding aperture in said bridge element, said slits and aperture being adapted to receive blade portions of other flatware articles therein, a plurality of pairs of cuts in said ledge portion defining strips therein depressible below the top thereof to provide apertures therein adapted to receive handle portions of said other articles, and a separate lock strip disposable to extend across said slots between said shank portions and saddle portion for a section of its length for locking said first mentioned articles against upward movement out of said slots.

7. A flatware packaging assembly comprising in combination a tray, a paperboard insert for said tray having a pair of spaced base portions resting on the tray bottom, a raised saddle connecting said base portions, a raised ledge extending from one of said base portions spaced from said saddle, a reinforcing element corresponding generally in cross section to said saddle and disposed in reinforcing relation thereto, a plurality of registering transverse slots in said saddle and element, a plurality of transverse slits in said saddle, and apertures in said ledge aligned with said slits, first flatware articles such as spoons, forks, or the like disposed with the handles thereof supported on said ledge and the shanks thereof engaged in said registered slots, second articles of flatware such as knives or the like disposed with the handles thereof engaged in said ledge apertures and the blade portions thereof engaged in said slits, and a separate lock strip disposed with one portion thereof extending across said slots and over said shanks and below the saddle and another portion thereof extending below said blade portions.

8. A flatware holding tray assembly comprising in combination a tray having a hollow wall, a paperboard insert for said tray having a raised saddle portion extending substantially parallel to said wall and a raised ledge extending along said wall, said ledge being adapted to support handle portions of flatware articles, a transverse slot in said saddle portion adapted to receive a shank of a flatware article handle therein, a transverse slit in said saddle portion adapted to receive the blade of a bladed flatware article therein, a slot in the inner wall member of said hollow wall adapted to receive the butt end of the handle of said bladed article, and a separate locking strip insertible across said saddle portion slot between said shank and the top of said saddle portion.

9. A flatware holding tray assembly comprising in combination a tray having a hollow wall, a paperboard insert for said tray including a raised saddle portion extending substantially parallel to said wall and a raised ledge portion extending along said wall adapted to support handle portions of flatware articles, a transverse slot in said saddle portion adapted to receive a flatware article handle shank therein, a transverse slit in said saddle portion adapted to receive the blade of a bladed flatware article therein, a slot in said ledge adapted to receive the handle of said bladed article, an aperture in the inner wall member of said hollow wall adapted to receive the butt end of the handle of said bladed article,

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and a separate locking strip insertible across said saddle portion slot and between said shank and the top of said saddle portion.

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REFERENCES CITED

The following references are of record in the file of this patent:

Number
507,864
2,253,008

5

Number
126,099

10

UNITED STATES PATENTS

Name	Date
Wertheimer	Oct. 31, 1893
Anderson	Aug. 19, 1941

FOREIGN PATENTS

Country	Date
Switzerland	June 1, 1928