United States Patent [19]

Lear

[11] **3,869,045**

[45] **Mar. 4, 1975**

[54] **POSTING TRAYS**

[75] Inventor: **Joseph D. Lear**, Snyder, N.Y.

[73] Assignee: **Posting Equipment Corporation**, Buffalo, N.Y.

[22] Filed: **May 30, 1972**

[21] Appl. No.: **247,602**

[52] **U.S. Cl.** **211/11**, 211/51, 312/183

[51] **Int. Cl.** **B42f 17/12**

[58] **Field of Search** 211/11, 50, 51; 312/183, 312/189; 220/22, 221; 206/74

[56] **References Cited**

UNITED STATES PATENTS

1,814,191	7/1931	Seyl	211/51
2,249,548	7/1941	Swimmer	220/22
2,272,537	2/1942	West	211/50
2,371,713	3/1945	Short	220/22.1 X
2,574,870	11/1951	Gunn	211/51
2,876,780	3/1959	Vogel	211/50 X
3,540,786	11/1970	Potter	312/184

FOREIGN PATENTS OR APPLICATIONS

109,641	2/1940	Australia	312/183
520,744	2/1931	Germany	211/11
114,395	7/1945	Sweden	211/11
829,656	1/1952	Germany	312/183

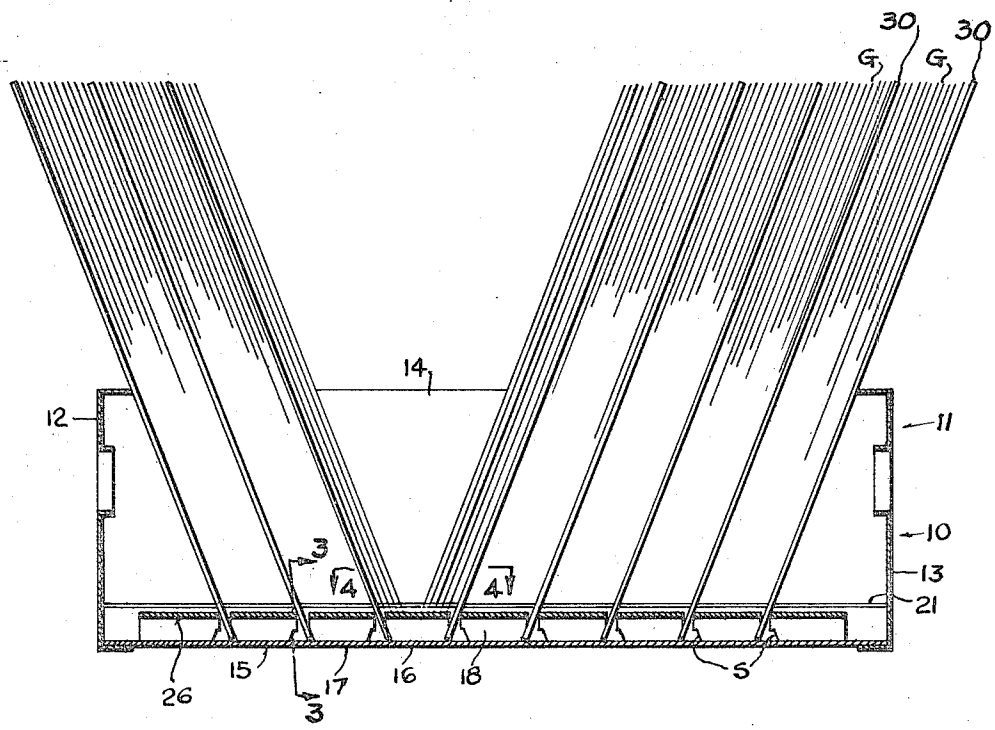
Primary Examiner—Roy D. Frazier

Assistant Examiner—Thomas J. Holko

[57] **ABSTRACT**

A posting tray of the rectilinear tube type having removable tilt plates of known configuration and disposal wherein the plates are locked against accidental displacement when in their angular or filing positions but are readily removable when lifted vertically.

1 Claim, 7 Drawing Figures



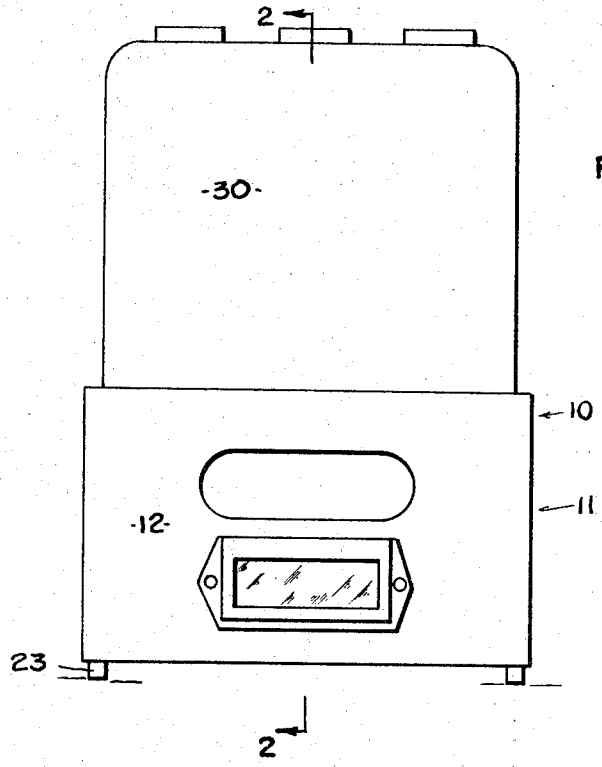


FIG. 1

FIG. 2

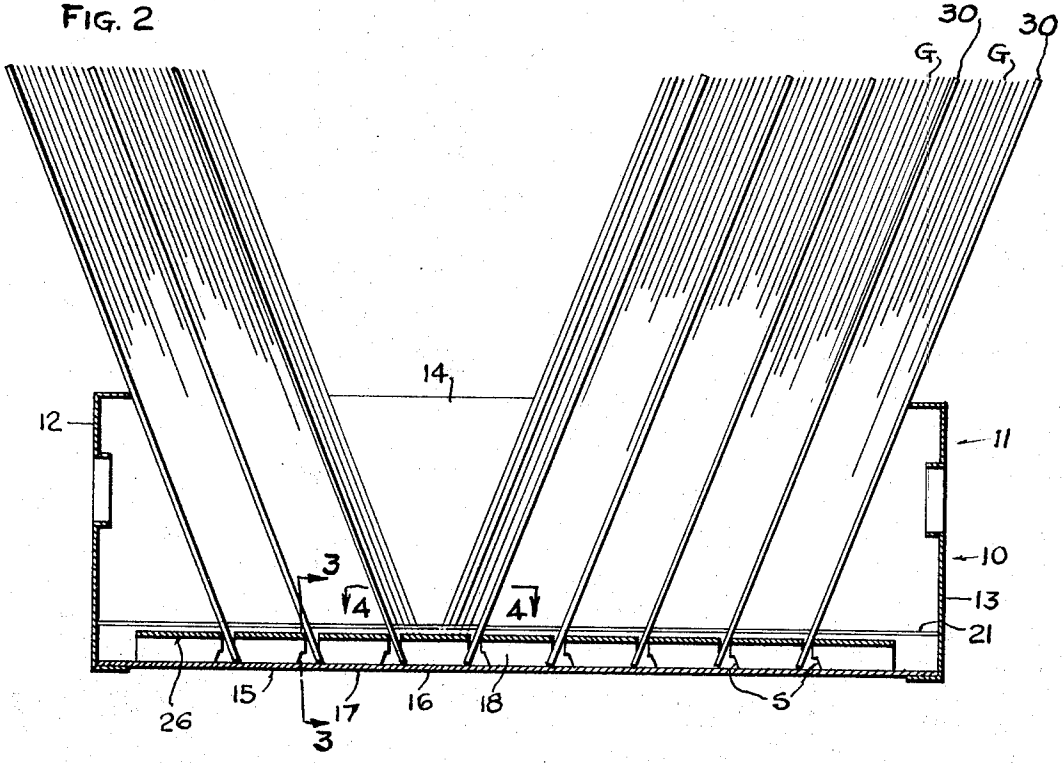


FIG. 3

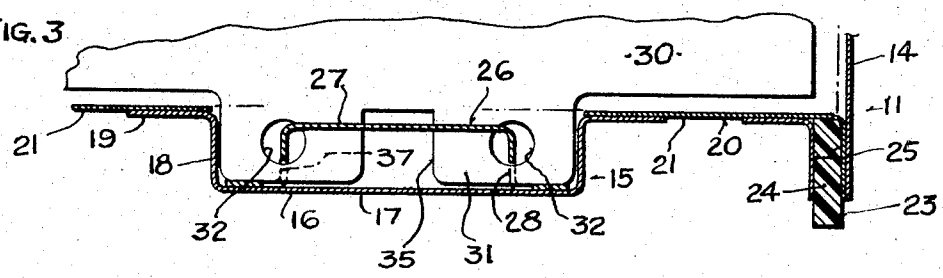


FIG. 4

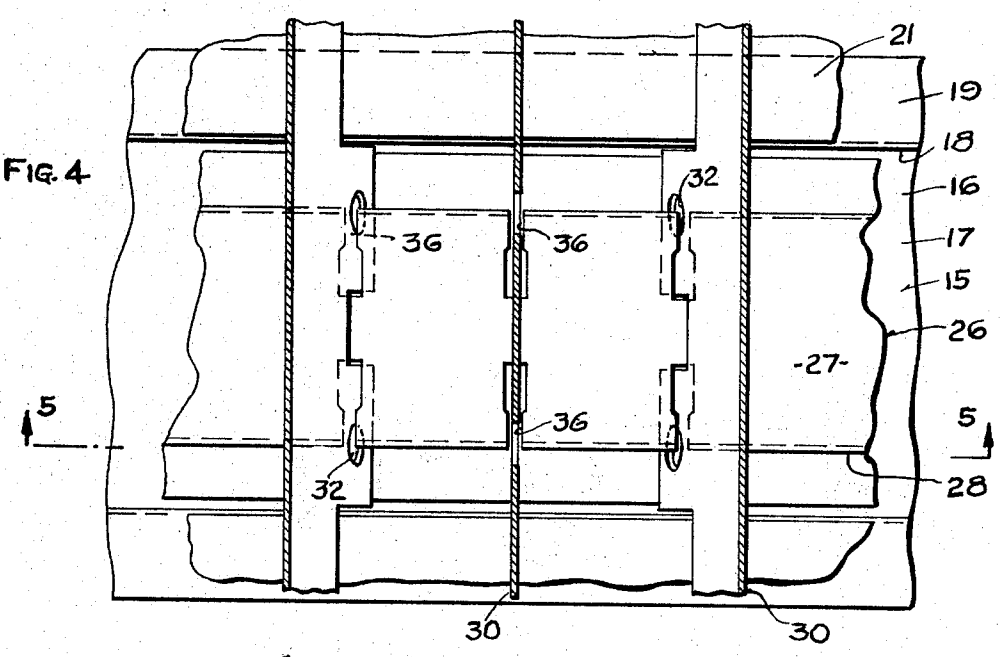


FIG. 5

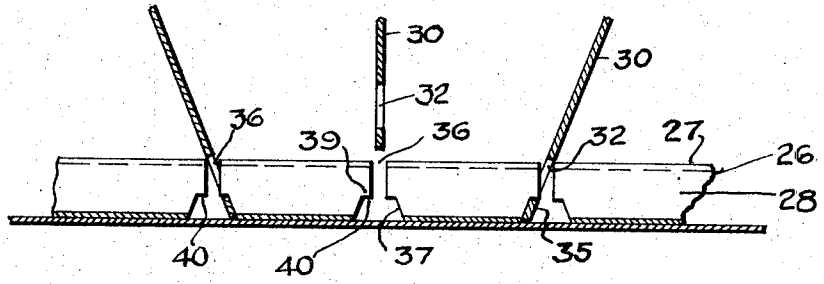


FIG. 6

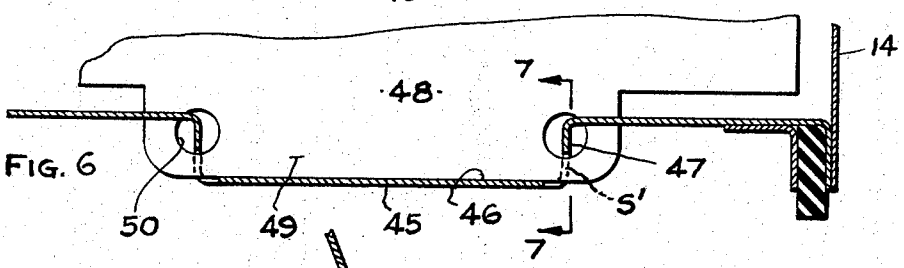
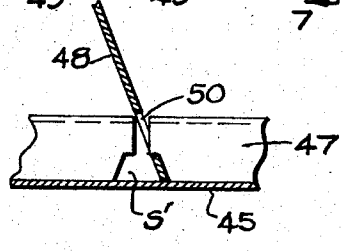


FIG. 7



POSTING TRAYS

This invention relates to filing trays having spaced pivoted tilt plates between which masses of cards are received for guided movement.

It is an object of the invention to prevent the accidental displacement of the tilt plates when they and the accompanying cards are violently thrown to their angular positions, and yet to permit removal thereof when lifted out of the file vertically. The structure of the filing tray and tilt plates to obtain this objective will be better understood by reference to the accompanying specifications and drawings wherein:

FIG. 1 is a front view of a filing tray.

FIG. 2 is a section on the line 2—2 of FIG. 1.

FIG. 3 is an enlarged fragmentary section on the line 3—3 of FIG. 2.

FIG. 4 is an enlarged fragmentary section on the line 4—4 of FIG. 2

FIG. 5 is a section on the line 5—5 of FIG. 4

FIG. 6 is a section similar to FIG. 3 showing a further embodiment of the invention.

FIG. 7 is a fragmentary section on the line 7—7 of FIG. 6.

The filing tray **10** includes a body **11** (FIG. 1 and 2) of open box configuration having ends **12** and **13**, sides **14** and a base **15**. As best viewed in FIG. 3, the base **15** is fabricated of a channel **16** having a bottom **17** and vertical walls **18** terminating in horizontal flanges **19**. Floor members **20** have horizontal legs **21** welded to flanges **19** and depending flanges **22** welded to the sides **14**. Rectilinear rubber pads **23** are pressed into sockets **24** formed by additional angles **25** welded to the legs **21** in spaced relation to the depending flanges **22** of the floor members **20** and such pads serve as legs to support the tray **10** on the surface of a filing table. An inverted channel **26** having a top **27** and vertical legs **28** terminating in horizontal flanges **29** is welded centrally in channel **16**.

A mass of cards (FIG. 2) rests on the floor members **20** of the base **15** and the cards are divided into group G by tilt plates **30** which are transversly mounted in spaced sockets S in the channel **26** for limited angular movement. As best seen in FIG. **4, 5, 6,** the tilt plates **30** are rectangular in shape, each having an integral rectangular tab **31** depending from its lower margin. Holes **32** are punched in the corners of each tab and the spacing or pitch of such holes is equal to the distance between the vertical legs **28** of the channel **26.** The center of the tab **31** contains a large open notch **35.**

The sockets S consist of punched formations disposed symetrically on opposite sides of the channel **26,** each including a pivot slot **36** having a horizontal portion in the channel top **27** (FIG. 4 and **5**) and a vertical portion in the vertical channel legs **28** leading into an angular slot **37** in the vertical channel legs **28.** The walls of the angular slot **37** have short tooth like projections **39,** the horizontal margins **40** of which serve as latch surfaces, as will be presently observed.

To mount a tilt plate **30** in a chosen pair of sockets S, the plate is lowered vertically with the tab **31** entering freely into the slotted formation (FIG. **5**) and with

the notch **35** of the tab straddling the medial portion of channel **26,** thus locating the plate against lateral mislocation. When the plate is moved angularily forward or rearward with the slots **36** serving as a pivot, its angular motion is limited by engagement with the walls of the angular slots **37.** Simultanously, the holes **32** of the tab are entered by the projections **39** which effectively lock the plate against angular upward removal.

In the second embodiment of the invention (FIG. **6** and **7**), a similar locking strucutre is supplied in a different base **45** having an integral medial depressed channel formation **46.** Pairs of sockets S', identical to the sockets S, are struck in the vertical walls **47** of the channel formation **46** and in the adjacent horizontal portion of the base **45.** Rectangular plates **48** have depending tab portions **49** containing holes **50** registering with the vertical walls **47** of the channel formation **46.** As seen in FIG. **7,** the tilt plates **48** are locked against angular lifting displacement in the same manner as the plates **30** of the first embodiment.

Refering to FIG. **2,** it will be observed that when the plates and accompanying cards are tilted to a cleavage angle of about 36°, the plates are locked against displacement regardless of the violence which this operation may be performed. When it is desired to remove a plate, it is brought to a vertical position and then lifted straight up without interference.

I claim:

1. A posting tray of open box formation comprising a longitudinally extending bottom with a centrally disposed downwardly extending first channel extending longitudinally thereof, said channel having vertically spaced legs with a transverse horizontal leg extending between said vertical legs, a second inner central channel disposed within said first channel with a horizontal leg extending between vertical legs with said second channel vertical legs being spaced inwardly of said first channel vertical legs and being secured at their lower edges to the transverse leg of said first channel, and pivot slots having elongated transverse horizontal (slots) slot portions disposed in said second inner channel horizontal leg and extending inwardly of said inner channel vertical legs, and (angular slots) vertical slot portions disposed in said inner channel vertical legs, and (said) angular slots intersecting said (horizontal slots) vertical slot portions and having lower upwardly converging portions, and middle portions with horizontal walls extending toward each other to form a catch thereon, at the intersection with said vertical slot portions (and upper portions with vertical walls entering said horizontal slots,) a plurality of rectangular tilt plates in said tray each having a pair of spaced rectangular tabs extending from its lower margin with each plate having its spaced tabs disposed transversely in said horizontal (slots) slot portions and said tabs having encircled openings therein positioned to be in transverse and longitudinal alignment with said angular slots and extending inwardly and outwardly thereof, to register therewith to permit said horizontal walls of said angular slots to extend into said openings to lock said plates therein when said plates are disposed angularly with a vertical plane.

* * * * *