April 4, 1967 I. R. YARDER 3,312,008

FRAME FOR SHOW CARDS

Filed May 19, 1965

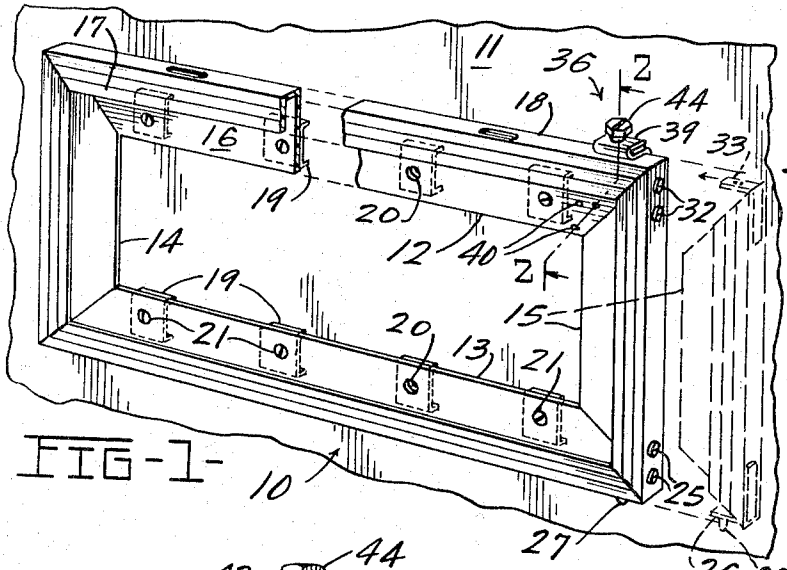



FIG-1-

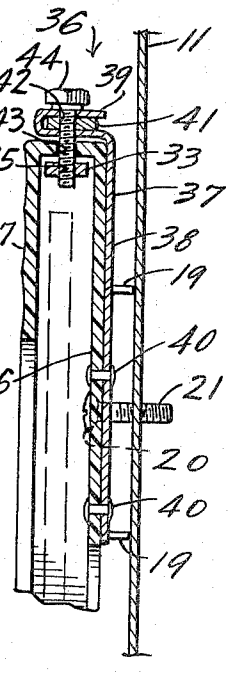



FIG-2-

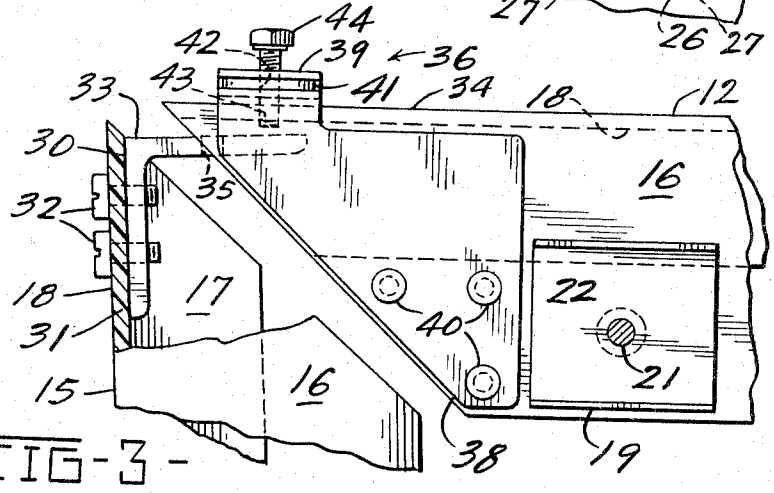



FIG-3-

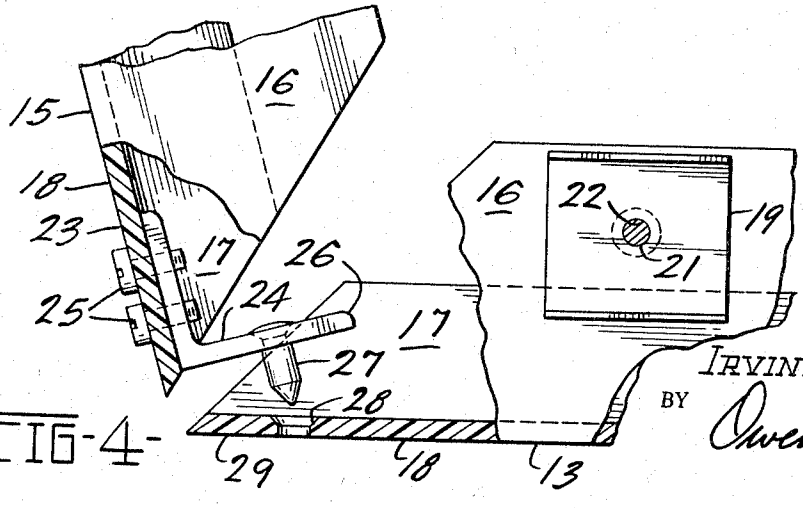



FIG-4-

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3,312,008

# FRAME FOR SHOW CARDS

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7 Claims. (Cl. 40—152.1)

This invention relates to a frame for show cards or similar signs and is particularly designed to provide for the rapid disassembly and reassembly of a portion of the frame to permit prepared show cards or signs to be inserted and removed from the frame.

Frames, according to the present invention, are mounted on the sides of buses or other surfaces. Advertising show cards of a generally standard size are placed in the frames for contracted periods of time. The show cards are removed after the contracted period of time and are replaced by similar cards of the same standard size.

Prior art frames of the type shown in Kowalski United States Patent No. 3,016,642 have presented a problem when they are, for example, mounted on a side of a bus. Many bus companies wash their buses each night after they have been used during the day. The washing apparatus consists of longitudinally extending cylindrically shaped brushes which are mounted on a vertical axis and which rotates around such vertical axis. The vertical extending brushes are spring biased inwardly toward the sides of the bus. Normally there are at least one pair of these vertically extending brushes which are spaced apart and spring biased toward each other. The bus is then moved between the rotating brushes which forces the brushes slightly outwardly thereby urging the respective brushes against the opposed sides of the bus. It has been found that if frames similar to the Kowalski frame are used the removable side of the frame is sometimes pulled from the remainder of the frame as the brushes pass over the frame. This occurs either when the person who placed the captive screw of the Kowalski frame in the keyhole slot, did not fully seat the screw in the slot or if the slot itself becomes worn. This problem is much greater when the frames are constructed of a resilient material, for example, an extruded plastic material. When an extruded plastic material is used for the frame, a captive screw-keyhole slot locking arrangement is not satisfactory. When a force is applied the keyhole slot widens or expands allowing the "captive" screw to escape from its seat. This often occurs during a typical bus washing operation as was described above.

It is the principal object of the instant invention to provide a frame for show cards or signs which has positive means for locking a removable frame member to the remainder of the frame.

It is another object of the instant invention to provide a frame for show cards which provides for the rapid assembly and disassembly of one of its sides to permit the removal and insertion of cards into the frame through the side which has been opened.

It is a still further object of the instant invention to provide a frame for show cards having locking means which prevent accidental disengagement of the removable frame member when the frame is constructed of a semi-resilient material.

It is a still further object of the instant invention to provide a frame for show cards which includes means for spacing the frame from the side of the object to which it is attached.

This and other more specific objects and advantages will be better understood from the specification which follows and from the drawings in which:



FIG. 1 is a view in perspective, with a portion broken away, of a frame embodying the instant invention and indicating by dashed lines a removable frame member which has been disengaged from the remainder of the frame;

FIG. 2 is a fragmentary, vertical sectional view taken along the lines 2—2 of FIG. 1 and shown on an enlarged scale;

FIG. 3 is a fragmentary elevational view of the back of the upper corner of the frame shown in FIG. 1 and illustrating how the upper end of the removable frame member is retained in place; and

FIG. 4 is a fragmentary elevational view of the back of the lower corner of the frame shown in FIG. 1 and illustrating how the lower end of the removable frame member is retained in place.

Briefly, the invention relates to a frame for show cards. The frame includes first and second frame members which form opposed sides of an open center frame. A third frame member extends between the first and second frame members and forms a third side of the open center frame. A fourth removable frame member extends between the first and second frame members in an opposed relationship to the third frame member and forms the fourth and final side of the open center frame. The ends of the removable frame member and the adjacent ends of the first and second opposed frame members have cooperating retaining means which consist of a retaining pin mounted at one end of the removable frame member and a cooperating pin receiving hole in the associated end of one of the first and second frame members. An arm on the other end of the removable frame member extends inwardly adjacent the associated end of the other of the first and second frame members when the frame is in a closed position. The arm defines a retaining opening and a captive member is mounted on the associated end of the other of the first and second frame members. The captive member is adapted to seat in the arm retaining opening when the frame is in the closed position.

Referring to FIG. 1, a frame according to the instant invention is generally indicated by the reference number **10** and is shown in FIG. 1 mounted upon a side **11** of a bus. The frame **10** includes a longitudinal first frame member **12**, an opposed, parallel, second frame member **13**, a stationary third frame member **14** extending between the first frame member **12** and the second frame member **13** and a removable frame member **15** which extends between the first frame member **12** and the second frame member **13**. The removable frame member **15** is parallel to and spaced from the stationary third frame member **14** and is the fourth and final side of the open frfame **10**. All four of the frame members **12, 13, 14**, and **15**, are fabricated from lengths of frame molding, in this instance illustrated as an extruded plastic molding. The frame members **12–15** have a back **16**, a front **17**, and a cross web **18** extending between the back **16** and the front **17**. The ends of each of the frame members **12–15** are mitered and the joints between the first and second frame members **12** and **13** and the stationary third frame member **14** are secured, for example, by connecting screws. In another embodiment, not shown, the third frame member **14** is not fixedly secured to the first and second frame members, but rather, corresponds structurally to the removable frame member **15**. In this embodiment either the third frame member **14** or the fourth frame member **15** may be removed for the insertion of an advertisement. Another advantage of having opposed removable frame members is that the frame **10** may be easily disassembled for shipping or storing.

The show card, advertising sign, or other sign (indicated by the dashed lines in FIG. 2) to be mounted in

the frame **11** is of such size that its edges fit into the slots formed between the backs **16** and the fronts **17** of the frame members.

A plurality of generally U shaped spacer members **19** are preferably mounted on the backs **16** of the respective frame members **12–15**. The spacer members **19** hold the backs **16** of the frame members **12–15** in spaced relationship to the surface upon which they are mounted, for example, the side **11** of a bus. Many modern buses have exhaust openings (not shown) located in their sides and the spaced mounting of the frame **10** is provided so as not to interfere with the normal operation of the air conditioning exhaust system.

The backs **16** of the frame members **12, 13,** and **14** have suitably located holes **20** for the reception of mounting screws **21**. The open center frame **10** as a whole is attached to the side **11** or other surface upon which it is mounted by the screws **21**. In the present embodiment the spacer members **19** are provided with holes **22** which index with the holes **20** and the spacer members **19** provide reinforcement for the portion of the plastic backs **16** of the frame members **12, 13,** and **14** at the locations which are weakened by the presence of the holes **20**.

The removable frame member **15** is designed to be readily removable and replaceable thereby providing for the insertion and removal of the show cards upon which advertising or the like is imprinted.

Referring to FIG. 4, the lower end **23** of the removable frame member **15** mounts a right angle member **24** by means of screws **25** or similar fastening means. A leg **26** of the angle member **24** extends inwardly and lies parallel to the cross web **18** of the second frame member **13** when the frame **10** is in the closed position indicated in FIG. 1. The leg **26** of the angle member **24** mounts a retaining pin **27** (see FIG. 4). The retaining pin **27** cooperates with a pin receiving hole **28** located in the cross web **18** of an associated end **29** of the second frame member **13**. When the lower end **23** of the removable frame member **15** is placed in position and the leg **26** of the right angle member **24** inserted in the slot between the back **16** and the front **17** of the second frame member **13**, the retaining pin **27** seats in the pin receiving hole **28** to hold the removable frame member **15** in place at its lower end.

Referring to FIGS. 2 and 3, an upper right angle member **30** is mounted on the upper end **31** of the removable frame member **15** by screws **32**. The angle member **30** has an arm **33** which extends inwardly, in underlying relationship with the cross web **18** of an associated end **34** of the first frame member **12**. The arm **33** of the angle member **30** is inserted into the slot between the back **16** and the front **17** of the associated end **34**. A retaining opening **35** is provided in the arm **33** of the angle member **30**. In the present embodiment, captive member holding means are generally indicated at **36**. The holding means **36** includes a holding bracket **37** having a first leg **38** and a second, generally perpendicular, leg **39**. The first leg **38** of the holding bracket **37** is fastened to the back **16** of the first frame member **12** by rivets **40** or by other suitable fastening means. In the instant embodiment, the first leg **38** of the holding bracket **37** is essentially the same depth as the back **16** and serves as a reinforcing member to provide structural strength. As was noted above, the frame members **12–15** are often constructed of a resilient plastic material and it has been found that reinforcement of the associated end **34** of the first frame member **12** is very beneficial. Such reinforcement helps insure a positive locking connection between the first frame member **12** and the removable frame member **15** so that the open center frame **10** is not damaged or accidentally pulled apart.

In the present embodiment, the second leg **39** of the holding bracket **37** is generally U shaped and overlies the cross web **18** of the first frame member **12**. A reinforcing slug **41** is inserted between the spaced sides of the U shaped second leg **39** of the holding bracket **37**. A threaded hole **42** is provided in the second leg **39** and the reinforcing slug **41**. A coaxial opening **43** is provided in the cross web **18** of the associated end **34** of the first frame member **12**. The threaded hole **42**, in the second leg **39** of the holding bracket **37**, the coaxial opening **43**, in the cross web **18** of the first frame member **12**, and the retaining opening **35**, in the arm **33** of the right angle member **30**, are in indexing relationship when the frame **10** is in the closed position shown in FIG. 1. A captive member, in this case a captive screw **44** is rotatably mounted in the threaded hole **42**. When the frame **10** is in the closed position, shown in FIGS. 1 and 2, the captive screw **44** is moved downwardly whereby it extends through the coaxial opening **43** in the cross web **18** of the first frame member **12** and also through the retaining opening **35** of the arm **33**. The holding bracket **37**, the captive screw **44**, and the angle member **30** are all constructed of metal. Therefore, if a force is applied to the removable frame member **15** urging it to the right, as shown in FIG. 1, it does not tend to tear or otherwise damage the frame member **12**. When it is desired to remove a show card or advertising sign from the frame **10**, the captive screw **44** is turned upwardly until its bottom end has cleared the retaining opening **35** in the arm **33** (see FIG. 3). The removable frame member **15** is then swung downwardly and to the left (see FIG. 4) to disengage the retaining pin **27** from the pin receiving hole **28** located in the associated end **29** of the second frame member **13**. The show card may then be removed and replaced and the frame **10** is reassembled by reversing the above-described procedure.

While the present invention has been disclosed with a specific arrangement and disposition of the parts, it should be expressly understood that numerous modifications and changes may be made without departing from the scope of the appended claims.

Having described my invention, I claim:

**1.** A frame for show cards and the like comprising in combination, first and second frame members forming opposed sides of an open center frame, a third frame member extending between said first and second frame members forming another side of the open center frame, a fourth removable frame member extending between said first and second frame members in opposed relationship to said third frame member, the ends of said removable frame member and the adjacent ends of said first and second opposed frame members having cooperating retaining means consisting of a retaining pin mounted at one end of said removable frame member, a cooperating pin-receiving hole defined in the associated end of one of said first and second frame members, an arm on the other end of said removable frame member extending inwardly adjacent the associated end of the other of said first and second frame members when said frame is in a closed position, said arm defining a retaining opening, a holding member mounted on the other associated end of said first and second frame members in overlying relationship with said arm when said frame is in the closed position, and a captive member mounted by said holding member in indexing relationship with such arm retaining opening, said captive member being adapted to seat in the arm retaining opening when said frame is in the closed position.

**2.** A frame according to claim **1** in which the frame is rectangular and the removable frame member forms the fourth side thereof.

**3.** A frame for show cards and the like comprising, in combination, first and second frame members forming opposed sides of an open center frame, a third frame member extending between said first and second frame members forming another side of the open center frame, a fourth removable frame member extending between said first and second frame members in opposed relationship to said third frame member, the ends of said removable frame member and the adjacent ends of said first and second opposed frame members having cooperating retaining means consisting of a retaining pin mounted at one end of

said removable frame member, a cooperating pin-receiving hole in the associated end of said second frame member, a mounting member mounted on the other end of said removable frame member having an arm which extends inwardly adjacent the associated end of said first frame members, said inwardly extending arm defining a retaining opening, a holding bracket having a first leg mounted on the back of said first frame member and a perpendicularly extending second leg, and a captive member movably mounted on said second leg of said bracket, said captive member being adapted to seat in the arm retaining opening when said frame is in a closed position.

4. A frame according to claim 3 in which the frame members are constructed of a semi-resilient plastic material.

5. A frame according to claim 3, including generally U shaped spacer members mounted at predetermined intervals on the backs of the respective frame members.

6. A frame for show cards and the like comprising, in combination, first and second frame members forming opposed sides of an open center frame, a third stationary frame member extending between said first and second frame members forming another side of the open center frame, a fourth removable frame member extending between said first and second frame members forming the last side of the open center frame, each of said frame members having a back, a front, and a cross web extending between said back and said front, the ends of said removable frame member and the adjacent ends of said first and second opposed frame members having cooperating retaining means consisting of a retaining pin mounted



at one end of said removable frame member, a cooperating pin-receiving hole in the associated end of said second frame member, a right angle member mounted on the other end of said removable frame member having an arm which extends inwardly in underlying relationship with the cross web of said first frame member when the frame is in a closed position, said arm defining a retaining opening, a holding bracket having a first leg mounted on the back of said first frame member and a second leg extending perpendicularly from said first leg in overlying relationship with the cross web of said first frame member, said second leg defining a threaded hole in indexing relationship with such arm retaining opening when the frame is in the closed position, and a captive member movably mounted in such threaded hole of said second leg, said captive member adapted to seat in the arm retaining opening when said frame is in the closed position.

7. A frame according to claim 1, in which the frame is rectangular and the third frame member and the fourth frame member are both removably mounted whereby the frame may be readily disassembled for shipping or storage.

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