S. L. AARONS.

SIGN.

APPLICATION FILED APR. 15, 1908.

914,776.

Patented Mar. 9, 1909.

2 SHEETS—SHEET 1.

FIG. 1.

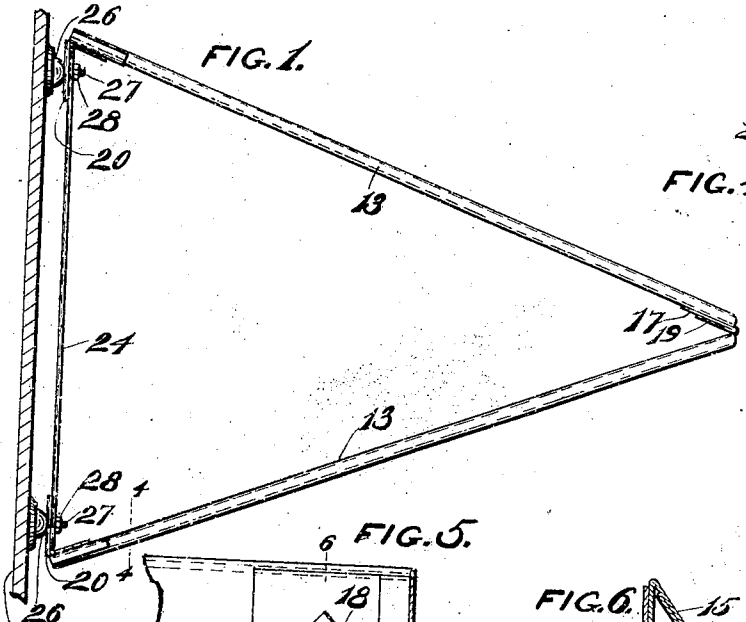


FIG. 4.

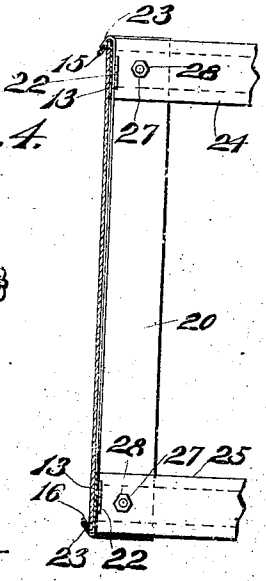


FIG. 5.

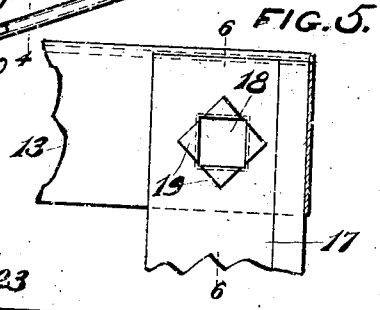
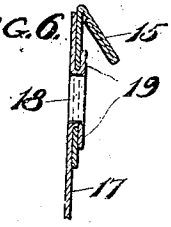


FIG. 6.



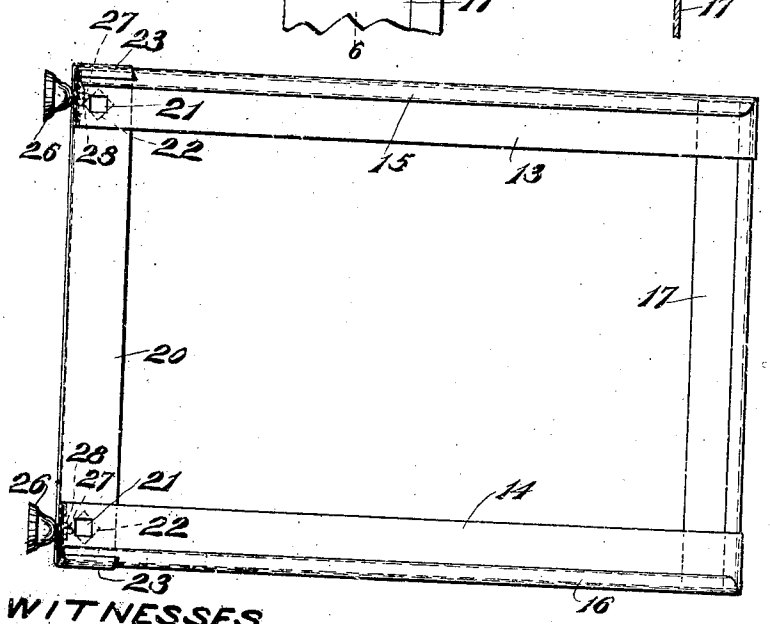


FIG. 2.

WITNESSES.

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2 SHEETS—SHEET 2.

FIG. 3.

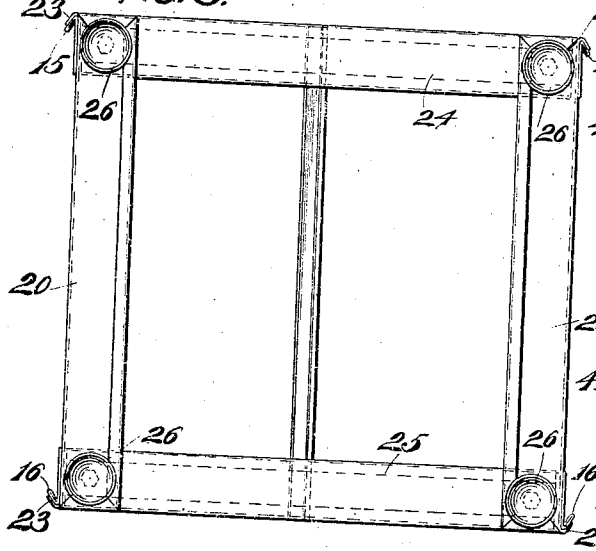


FIG. 11.

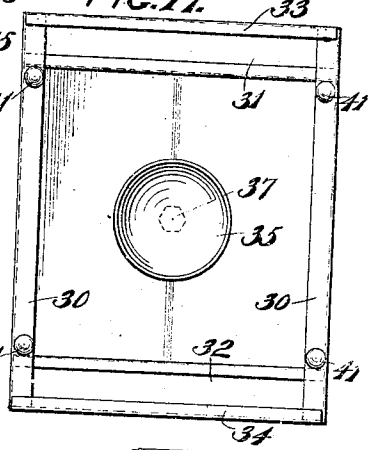


FIG. 12.

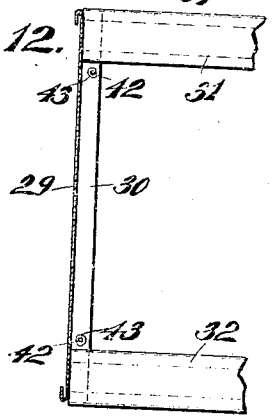


FIG. 9.

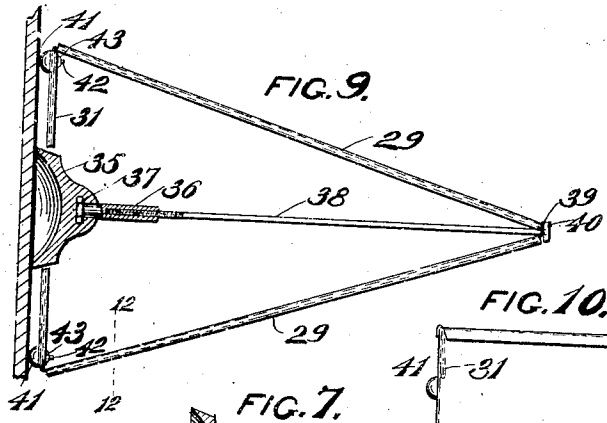


FIG. 10.

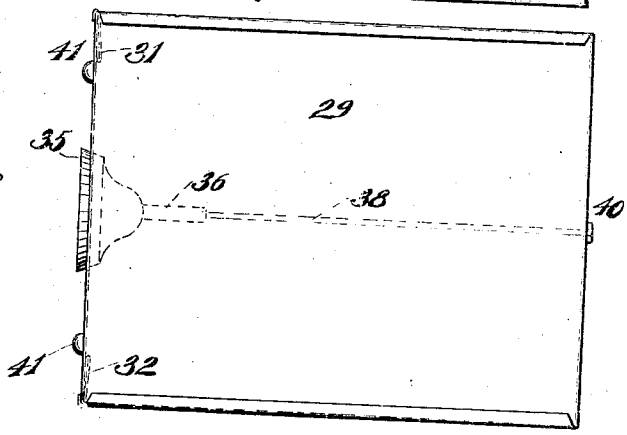


FIG. 7.

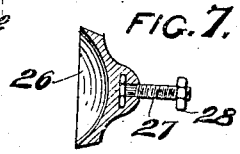
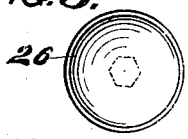


FIG. 8.



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UNITED STATES PATENT OFFICE.

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SIGN.

No. 914,776. Specification of Letters Patent. Patented March 9, 1909.

Application filed April 15, 1908. Serial No. 427,278.

To all whom it may concern:

Be it known that I, SAMUEL L. AARONS, residing in Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Signs, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in signs.

The object of the invention is to provide an improved form of sign of simple and cheap construction, and adapted for ready attachment to and detachment from a window glass or other vertical support, the attaching and detaching means consisting of a suction cup or cups secured to the rear of the sign and providing for said ready attachment and detachment.

With the above primary object, and other incidental objects, in view, the invention consists of the devices and parts, or their equivalents, as hereinafter set forth.

In the accompanying drawings, Figure 1 is a top view of one form of a sign, showing the suction cups compressed against a window pane, or other vertical support, to thereby hold the sign detachably in place; Fig. 2 is a side elevation; Fig. 3 is an end elevation; Fig. 4 is a section on line 4—4 of Fig. 1, looking rearwardly; Fig. 5 is a fragment of one of the upper corners of the frame; Fig. 6 is a section on the line 6—6 of Fig. 5; Fig. 7 is a detail, on an enlarged scale, of the cup employed in the Figs. 1 to 6 form of construction; Fig. 8 is an end view of Fig. 7; Fig. 9 is a plan view of a modified form of construction, the suction cup and the tube extending therefrom being in section; Fig. 10 is a side elevation of Fig. 9; Fig. 11 is an end view of Figs. 9 and 10; and Fig. 12 is a section on the line 12—12 of Fig. 9, looking rearwardly.

In the form illustrated in Figs. 1 to 6, I show a construction of open frame, preferably of metal, and constructed to permit of the sliding engagement of signs with the open sides thereof. This form of frame is composed of two open rectangular side frames and an end frame, preferably so arranged and connected together that the open side frames converge forwardly to an apex or point, so that the entire frame is of triangular form. Each side frame comprises the top and bottom horizontal members 13 and 14 respectively. The two top side members are preferably formed from a single strip bent centrally and diverged from the point of bending to provide an approximate **V**-shaped formation. The two horizontal bottom members are likewise also preferably formed from a single strip bent centrally and diverged from the point of bending to form an approximate **V** corresponding to the upper **V**-shaped formation. In order to form ways or guides at each side of the frame for the sliding connection of the signs, the upper horizontal top members are bent downwardly at their upper edges, as indicated by the numerals 15, 15, the downwardly bent portions sloping outwardly. It is preferred that these downwardly bent portions be composed of a double thickness by bending the metal and folding the same beneath the upper thickness, as clearly shown in Figs. 4 and 6. The lower edges of the horizontal bottom members 14 in order to form the lower portion of the guides are bent upwardly and sloped outwardly, as indicated by the numeral 16, and this bent up portion is also preferably composed of two thicknesses of metal, as clearly shown in Fig. 4. The top and bottom horizontal members 13 and 14 are connected at the apex of the frame by means of a vertical strip 17. The opposite ends of this strip are preferably connected to the top and bottom members of one side by punching holes through said top and bottom members and through the opposite ends of the vertical strip, the punching operation being such that lips are left on the vertical strip 17, and these lips are extended through the punched out openings of the strip 17, and bent against the inner side of said strip. The punched out openings are clearly shown in Figs. 5 and 6, and indicated by the numeral 18, and the lips referred to are also clearly shown in said figures and indicated by the numerals 19. At the rear of the frame are two upright angular corner pieces 20, 20, and to the side flanges of these corner pieces, at opposite ends of said flanges are secured the rear ends of the horizontal top and bottom members 13 and 14 of the side frames. I prefer to secure the parts together, in the same manner that the opposite ends of the vertical strip 17 are secured, viz., by punching holes through the parts, and leaving lips on one of said parts to be bent against the other of said parts, as most clearly shown in Fig. 2. These punched out holes are indicated by the numerals 21, and the lips by the numerals 22. I also prefer that

the opposite ends of the side flanges of these angular corner pieces be extended somewhat to form lips 23, 23, which lips are bent downwardly and against the guide lips 15 and 16 of the side frames. The upper ends of the rear flanges of the upright corner pieces 20 are connected by a horizontal strip 24, the opposite ends of said strip being secured against the inner sides of said flanges. A similar horizontal strip 25 connects the lower ends of the rear flanges of these upright corner pieces. To the rear of the frame are secured suction cups 26, which are composed of suitable flexible material, preferably of rubber, and of cup-shaped or concavo-convex form with the concavities outermost. From the bottoms of these cups project threaded stems 27, adapted to receive thereon nuts 28. It is preferred that these threaded stems and the nuts thereon serve as the means for uniting the top and bottom horizontal strips 24 and 25 to the rear flanges of the upright corner pieces. I, therefore, employ four of the cups and pass the threaded stems thereof through the upper and lower ends of the rear flanges of the upright corner pieces and through the opposite ends of the top and bottom horizontal strips, and then turn the nuts on to the threaded stems and against the inner sides of said top and bottom rear strips.

In order to secure the sign against a window pane, or other vertical support, I first, preferably, moisten the cups, and then press the same firmly against the pane of glass 28′ so as to compress the cups, as clearly shown in Fig. 1. The suction necessarily resulting from this operation causes the sign to be held firmly against accidental removal, under ordinary conditions. When it is desired to detach the sign, all that is necessary is to exert a pull outwardly thereon with some slight force.

It will be seen from the construction thus far described that I provide a form of sign which is readily foldable together so as to be of compact form when not in use. In order thus to fold the parts together, all that is necessary is to remove the nuts 28, and this will permit the suction cups to be detached, thereby disconnecting the upper and lower rear horizontal strips 24 and 25. When these strips are disconnected, the top and bottom side members 13 and 14 may be brought together, so that the entire structure will occupy but a minimum of space.

In Figs. 9 to 12, I show a modified form of construction wherein the sides of the frame are solid, and wherein also only a single suction cup is employed for detachably holding the sign in engagement with the glass 28′, or other support. Referring to this form of construction the solid sides 29, 29, preferably of metal, such as sheet metal, are advisably formed from a single sheet bent centrally and diverged from the bend, the divergent portions forming the two sides 29. The rear edges of these sides are bent inwardly toward each other to form inwardly extending rear upright flanges 30, 30. To these flanges, preferably to the rear sides thereof, are secured top and bottom rear connecting strips 31 and 32 respectively. The upper and lower edges of these strips are bent over outwardly, as clearly shown in Fig. 11, and the upper bent over portion or fold 33 of the upper strip 31 receives therein, at opposite ends thereof, the upper ends of the rear flanges 30, said flanges thereby serving as a support or means for securing the upper strip, and the bent over lower edge or fold 34 of the lower strip 32 receiving therein the lower ends of the rear flanges 30, the said parts, however, being additionally secured by means of solder. As heretofore stated, in this modified form of construction a single suction cup, indicated by the numeral 35 may be employed, and the sign thereby detachably held against its support with sufficient firmness. This suction cup, however, should preferably be of greater diameter than the suction cups used in the other form of construction, as where a single cup is employed an augmented suction surface is desirable. A stem 36 extends into the bottom of this suction cup, and said stem is provided on its inner end with a head 37 which is seated in a recess provided therefor in the cup. The stem is tubular throughout the greater portion of its length, and the bore of the tube is threaded to receive the rear threaded end of a rod 38. This rod 38 extends between the two sides of the frame and to and through an opening 39 at the center of the apex of said frame, the rod being provided at its extremity with a rigid head 40. To the rear flanges 30 are connected flexible rounded knobs or feet 41, two of said feet being preferably provided for each of said uprights. These feet are secured to the flanges by means of threaded stems 42 extending from the feet and passing through said flanges, and adapted to receive on their inner ends nuts 43 which are turned on to the stems against the inner sides of said flanges. In adjusting this form of device against a window pane, or other support, the flexible feet 41 are first brought against said support. The rod 38 is then raised so as to bring the cup 35 to a substantially central position at the rear of the sign. The rigid head 40 of the rod 38 is next grasped and the rod thereby turned in a direction to cause the threads at the rear end thereof to act on the threads of the bore of the stem 36 in such manner as to cause the suction cup to be brought firmly against the pane of glass, whereby the sign is secured with sufficient firmness to hold it against being accidentally detached. When it is desired to remove the sign, the head 40 is grasped, and the rod 38 turned in the opposite direction so as to relieve the pressure

of the suction cup, which of course permits said cup to be readily detached.

While in the foregoing description of both of the forms of construction herein illustrated, I have described the frame as preferably metallic, yet I do not wish to be understood as limiting myself to a metal structure, inasmuch as the frame may be composed of any other desirable material. Also, I do not wish to be understood as limiting myself to the specific form of frame illustrated in the accompanying drawings and herein before described, that is to say, a frame of triangular form, inasmuch as this particular formation may be departed from, and a frame of square, of flat, of rectangular, or in fact of any other desired conformation may be provided, without departing from the spirit and scope of my invention, as defined by the scope of the appended claims.

What I claim as my invention is:

1. In a sign, the combination of a frame comprising open side pieces and an end piece, the top and bottom strips of said open side pieces being provided with bent over portions forming ways or guides for the slidable engagement of signs therewith, of suction means for holding the end piece of the frame to a suitable support.

2. In a sign, the combination of a frame of triangular shape, the sides of the triangle being open, and the top and bottom strips of each open sign being provided with bent over portions forming ways or guides for the slidable engagement therewith of signs, of suction means secured to the end piece or base of the triangle, and adapted to rigidly but removably hold the frame to a show window or analogous attaching means in such manner that the plane of the faces of the sides of the triangle containing the signs will project outwardly at an angle to the plane of the window or other attaching means.

3. In a sign, the combination with a frame of triangular shape, the sides of the triangle being provided with ways or guides for the slidable engagement of signs therewith, of suction means secured to the end piece or base of the triangle, and adapted to rigidly but removably hold the frame to a show window or analogous attaching means in such manner that the plane of the faces of the sides of the triangle containing the signs will project outwardly at an angle to the plane of the window or other attaching means.

4. In a sign, the combination with a frame comprising side pieces and an end piece, the side pieces having top and bottom ways or guides for the slidable engagement of signs therewith, of a suction cup secured to the rear end of the frame, said cup having its concavity outermost, and adapted to rigidly but removably hold the frame to a show window or analogous attaching means in such manner that the plane of the faces of the sides containing the signs will project outwardly at an angle to the plane of the window or other attaching means.

5. In a sign, the combination with a light, foldable and collapsible frame structure comprising two side pieces adapted for the display of signs thereon, and a rear end connecting piece, of suction means secured to the rear connecting piece said suction means, when pressed against a show window or analogous attaching means, adapted to hold the frame rigidly but removably thereto in such manner that the plane of the faces of the sides of the frame containing the signs will project outwardly at an angle to the plane of the window or other attaching means.

6. A sign comprising open side pieces and an end portion, the side pieces made up of two strips bent centrally into V-shaped form and braced by a vertical strip at the apices or bends thereof, and the end portion comprising upper and lower horizontal connecting pieces.

7. A sign comprising side pieces and an end portion, the end portion made up of two angular uprights and upper and lower horizontal connecting strips, the side flanges of said uprights having the rear ends of the side pieces connected thereto, and the opposite ends of the upper and lower horizontal connecting strips being respectively against the upper and lower ends of the rear flanges of said uprights.

In testimony whereof, I affix my signature, in presence of two witnesses.

SAMUEL L. AARONS.

Witnesses:
A. L. MORSELL,
ANNA F. SCHMIDTBAUER.