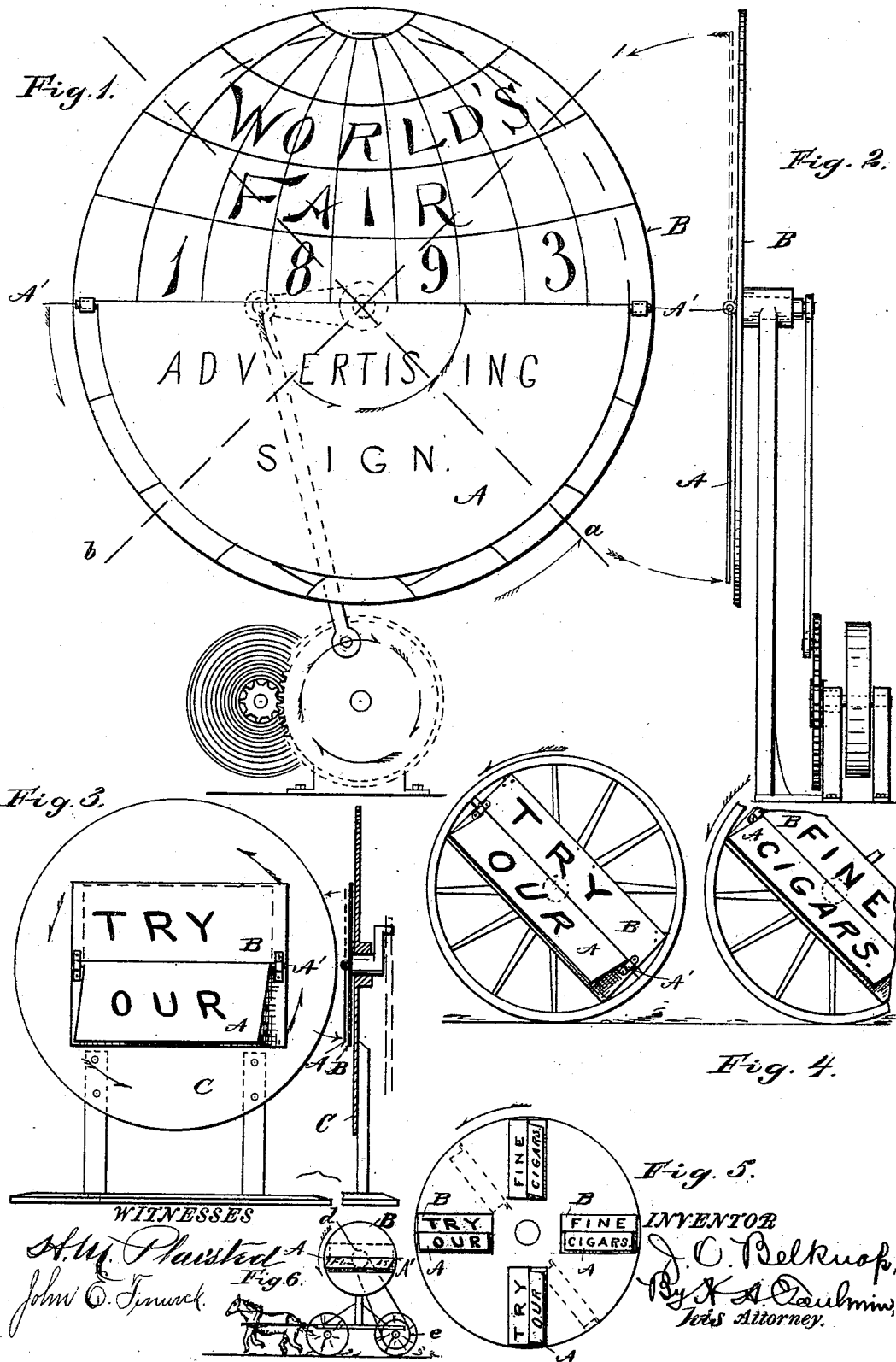


(No Model.)

J. O. BELKNAP.
ADVERTISING SIGN.

No. 470,034.

Patented Mar. 1, 1892.



UNITED STATES PATENT OFFICE.

JACKSON O. BELKNAP, OF MOBILE, ALABAMA.

ADVERTISING-SIGN.

SPECIFICATION forming part of Letters Patent No. 470,034, dated March 1, 1892.

Application filed July 31, 1891. Serial No. 401,246. (No model.)

To all whom it may concern:

Be it known that I, JACKSON O. BELKNAP, a citizen of the United States, residing at Mobile, in the county of Mobile and State of Alabama, have invented certain new and useful Improvements in Advertising-Signs, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in advertising-signs.

My improvements have reference to an automatically-reversible flap; have reference to a special form of mounting said flap to effect its automatic reversal by gravitating influence; have reference to exerting said influence by the rotation of the said flap endwise and the supporting-panel therefor; have reference to mounting said panel and flap so as to rotate on an axis which has also an onward movement, and have reference to other points of detail hereinafter described and claimed.

In the accompanying drawings, on which like reference-letters indicate corresponding parts, Figure 1 represents a front view of one form of my device, the panel background having an oscillating rotary movement; Fig. 2, an edge view of the same; Fig. 3, a front and sectional view of a reversible flap and panel mounted on a fixed or stationary background; Fig. 4, a flap and panel mounted on a background having a rotary and onward movement; Fig. 5, a number of reversible flaps and panels mounted on a rotary background, each at one side of the axis thereof; and Fig. 6, another mode of mounting said flap.

The letter A designates a reversible flap pivotally hinged or otherwise adapted to reverse and show first one side and then another, said reversing action being preferably effected by the gravitating influence of the flap about its axis. I have shown one form—namely, hinging said flap at one edge thereof, said edge constituting the axis about which the flap reverses. The flap may, however, be otherwise adapted to reverse on its axis, this being but one form of mounting the same. In connection with the flap is a panel B, to which the said flap is pivoted on an axis substantially parallel to the panel. This panel is shown in Fig. 1 as painted upon or coincident with the background and adapted to be

rotated back and forth through substantially half a circumference by means of wheel-work actuated by a spiral spring or otherwise. The weight of the flap will tend to keep it in its lower position with regard to its axis, which axis is mounted transversely to the axis of the panel, and the rotation of the panel to which the flap is pivoted will change the position of this axis end over end or rotatably in the plane of the axis, so as to bring it below the center of the weight of the flap, thus causing the flap to reverse itself by the action of gravity. For instance, in Fig. 1 the panel is about to begin its rotation in the direction of the arrows. When the axis A' of the flap arrives at the dotted line a, the flap will reverse itself and show the opposite side thereof, together with the portion of the panel now hidden by the flap. On a reverse movement of the panel the flap will return to its former position, when the axis A' arrives at the position of the dotted line b, or thereabout, thus showing the former side of the flap and the portion of the panel corresponding thereto. The flap will be balanced when its axis A' is in a vertical line, and the gravitating influence will act at a greater or less distance beyond the vertical line according to the more or less friction of the bearings of the flap. The dotted lines in Figs. 1 and 2 show the positions of the flap from which it reverses to the positions shown in full lines, as indicated by the arrows.

In Fig. 3 I have shown a fixed background C with the reversible flap A and its supporting-panel B, mounted to rotate on the axis, as indicated by the arrows. In this form the background is separate from the panel and fixed or stationary in position, while the panel rotates on an axis and effects the reversal of the flap A by changing the position of the axis A' with regard to the weight of the flap. The background may be used for advertisements, while the panel and reversible flap will call attention thereto by suitable inscriptions thereon. The motion of the panel and flap will attract attention to themselves.

In Fig. 4 I have shown another form of background and mounting for the flap and panel, consisting of a wheel to which the panel is bolted or otherwise secured, the rotation of the panel being caused by the ro-

tation of the background (the wheel) as the latter rolls along the ground. The axis on which the panel revolves is therefore moving on continually, instead of being fixed, as in Fig. 3; but the rotation of panel effects the change of position of the axis A' of the flap and secures the gravitating action thereof, as in the previous examples.

In Fig. 5 a plurality of flaps and their respective panels are secured to a background, the axis of which is to one side of the panel, and may simply have a rotary movement, or rotary and onward, as in Fig. 4. The flaps will reverse automatically as they arrive at their reversing positions—namely, the positions in which the weight of the flap will overbalance the friction of the pivot of the same when the axis A' is brought below the center of gravity of the weight thereof. The dotted positions, Fig. 5, indicate the points at which the flaps will reverse.

By suitably varying the directions or inscriptions on the flap and panel part of a sentence may be read in one position of the flap and the remainder thereof on the reversal of the flap; also, a number of flaps may be so arranged as to show the whole sentence in one position, as indicated in Figs. 4 and 5, in which "Try our" is shown on the panel and flap, respectively, in one position of the latter and "Fine cigars" on the same in a reversed position of the flap. Thus it will be seen that the reversing of the flap may be effected automatically through gravitating influence by bringing the axis of the flap to such position with regard to the center of gravity of the flap itself as to allow said gravitating influence to act thereon. Whether this change of position of the axis is effected by a rotary oscillating movement, as in Fig. 1, or completely rotary or rotary with onward movement it will be seen that the said change of position of the axis of the flap with regard to the center of gravity thereof is effected.

As before mentioned, the panel and background may be coincident, as in Fig. 1, or the panel may be mounted on the background and the flap attached to the panel. Furthermore, the panel and background may be fixed with relation to each other, as in Figs. 4 and 5, or the background may be fixed and the panel rotatable, as in Fig. 3.

I do not wish to limit myself to any particular form of mounting the flap, whether hinged or otherwise, nor to a particular form of panel and its means of support.

It will be observed that the movement of the flap in reversing from one position to the other is substantially from the plane of rota-

tion at one side of the axis of the flap into the same plane of rotation on the other side of the axis of the flap. In other words, the flap starts from approximately the plane of rotation of its support or panel, and swings out of and then back into said plane with every half-rotation of its support or panel, thus showing the reverse side of the flap with every half-rotation of its support or panel, whether said rotation is completely rotary or oscillatory rotary.

Referring to Fig. 6, another mode of mounting the flap is shown, consisting of a rotatable panel B, having a drum *d*, belted to a drum or pulley *e* on the axle of a wagon, whereby when the wagon is moved onward, as indicated in the figure, the panel will be rotated in the direction of the arrow and cause the reversal of the flap, as above described. It will be observed that the panel has a rotary movement on its axis in order to reverse the flap, and also has an onward movement whereby the panel is translated from place to place.

Many other forms of carrying out my invention might be illustrated; but the above description and drawings are sufficient to exemplify the uses to which it may be put.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an advertising-sign, the combination, with a panel having an alternate back-and-forth rotary movement about its axis and adapted to be suitably inscribed, of a reversible flap pivoted to said panel transversely to the axis thereof and thus brought into such relation to its axis that the pivotal point of said flap will be alternately above and below the center of gravity of the flap at each alternate forward and backward movement of said panel, and means to effect said movement of the panel.

2. In an advertising-sign, the combination, with a rotatable panel and means to rotate it, of a reversible flap adapted for inscriptions and pivoted to said panel transversely to the axis thereof, whereby the rotation of said panel on its own axis will bring the pivoted axis of said flap into constantly-changing position relatively to the flap itself, and thereby effect the reversal of the flap by gravitating influences.

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

JACKSON O. BELKNAP.

Witnesses:

W. C. BELKNAP,
J. W. SPRATLEY.