Mar. 20, 1923. 1,449,063.

J. J. SHOTWELL.

SIGNBOARD.

ORIGINAL FILED OCT. 26, 1920.

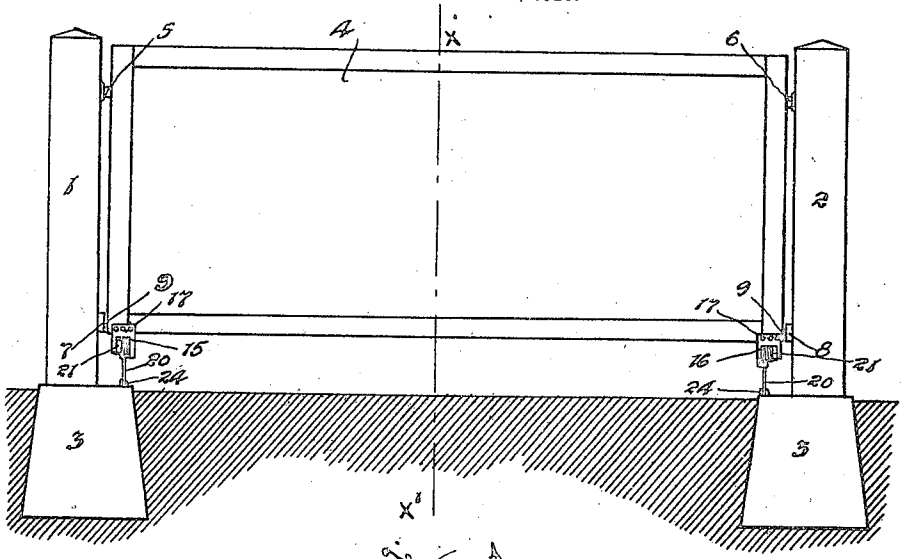


Fig 1

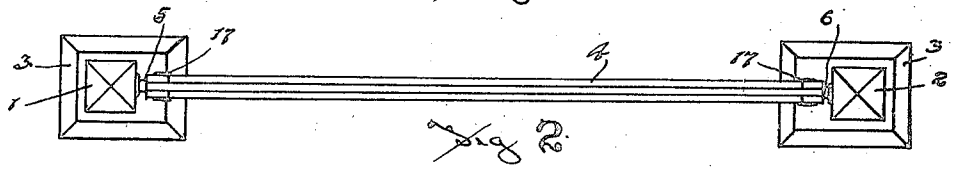


Fig 2.

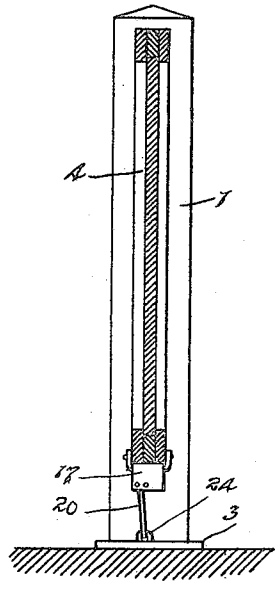


Fig 3

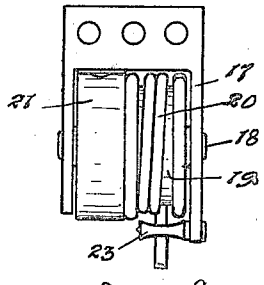


Fig 4

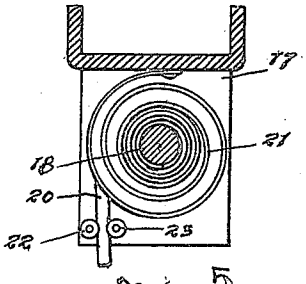


Fig 5

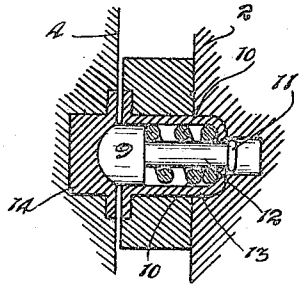


Fig 6

INVENTOR

J. J. Shotwell

BY Fitzgerald & Co.

ATTYS

Patented Mar. 20, 1923. 1,449,063

UNITED STATES PATENT OFFICE.

JOHN J. SHOTWELL, OF PLAINFIELD, NEW JERSEY.

SIGNBOARD.

Application filed October 26, 1920, Serial No. 419,665. Renewed August 17, 1922. Serial No. 582,534.

To all whom it may concern:

Be it known that I, JOHN J. SHOTWELL, a citizen of the United States, and a resident of Plainfield, county of Union, and State of New Jersey, have invented certain new and useful Improvements in Signboards, of which the following is the specification.

The invention relates to improvements in sign boards, particularly as used in exposed places where they are distinctly subjected to the action of wind and the principal object of the invention is to provide a sign suspension which will, under normal conditions, retain the sign in the vertical position but which is arranged to allow the sign to swing while restrained when the wind pressure becomes excessive.

A further object is while providing a suspension of the above kind to do away with the customary unsightly braces and supports utilized to reinforce the ordinary sign against wind pressure and at the same time allow of both sides of the sign board being used for display purposes.

With the above general objects in view the invention consists essentially in a pivotally suspended sign board, releasable means locking the lower edge of the sign against movement under normal wind conditions and a give and take anchoring connection attached to the lower edge of the sign, the parts being arranged and constructed as hereinafter more particularly described and later pointed out in the appended claims, reference being had to the accompanying drawing in which:—

Fig. 1 represents a side view of a sign constructed in accordance with my invention.

Fig. 2 represents a plan view thereof.

Fig. 3 represents a sectional view through the sign and looking towards the post, the section being taken in the plane denoted by the line X—X′ Fig. 1.

Fig. 4 represents an enlarged detailed side view of one of the spring attachments.

Fig. 5 represents a sectional view through the spring attachment and looking directly at the spring.

Fig. 6 represents an enlarged detailed longitudinal sectional view through one of the locking catches.

In the drawing like characters of reference indicate corresponding parts in the several figures.

1 and 2 represent a pair of end supports such as posts which are suitably anchored in the ground, the posts in the present instance being shown as made of cement with tapering bases 3 firmly imbedded in the ground. 4 represents a substantially rectangular sign board inserted between the posts and suspended pivotally from the post by short end spindles 5 and 6.

Here it will be observed that the pivots are located towards the upper edge of the sign so that the lower edge thereof hangs normally free and clear of the ground.

In order to hold the sign against swinging under normal conditions I have provided catches 7 and 8 engageable with the lower corners of the sign board and releasably fastening the sign board to the post.

These catches, in the present instance, are in the nature of outwardly spring pressed plungers 9 carried by the posts and having a limited outward movement under the action of their springs 10, the outward movement being stopped by heads 11 formed on the ends of the plunger shanks 12 and adapted to engage with the ends of the sockets 13. The plungers 9 have their exposed ends rounded and are adapted in the locked or closed position of the catches to seat in receiving sockets 14 suitably mounted in the lower corners of the sign board.

In applying these catches it will be understood that they have to be fitted fairly accurately so that when the lower edge of the sign board swings the catches 9 will automatically spring into the sockets and arrest the swinging of the board and hold it in the upright position. Between the lower edge of the sign board and the bases 3 of the posts I locate give and take spring attachments 15 and 16 which are designed, upon the catches releasing, to allow the board to have a limited swing under the action of the wind and upon the wind falling to draw back the board and relock it in the vertical position.

The attachments 15 and 16 each comprise a bracket 17 in which I mount rotatably a cross shaft 18 provided with a drum 19 and a flexible connection such as a cable 20 attached to the drum and wound thereon. A coiled spring 21 is attached to the shaft and to the bracket and is arranged such that it is wound up upon the cable being pulled off the drum and such that the cable is rewound on to the drum when it is released. The

free end of the cable in each instance is passed through guide rollers 22 and 23 secured to the bracket and is finally attached to an eye 24 secured to the base of the post in each case. A sign of this kind operates in the following way:—

The attachments 15 and 16 hold the sign normally in the vertical position in which position it is normally locked by the catches. Under ordinary conditions where there is very little wind the catches serve to hold the sign in the vertical position. However, upon the wind increasing in intensity the wind pressure on the sign will cause the lower edge to swing back and release from the catches and during this time it is held under restraint by the cables and springs 21. By allowing the sign to swing in this way the wind can clear under the sign, which action materially reduces the wind pressure on the sign. Obviously the lower edge of the sign will swing further back the greater the wind, so that the sign automatically adjusts itself to the wind pressure and there is no possibility of it being blow down. Upon the wind dropping the cables draw back the lower edge of the sign and the catches lock it automatically in the upright position.

By suspending a sign in this way I do not require the unsightly braces which are customarily used to hold the sign and further by dispensing with such braces I can use both sides of the sign board for display purposes which is an important consideration.

Whilst I have given a detailed description of the catches and the give and take attachments it will be readily understood that I do not wish to be limited to the precise construction shown as these could be readily changed without in the least departing from the spirit of the invention which resides principally in pivotally suspending a sign board with the lower edge free and then providing means for anchoring the lower edge of the sign while allowing it a restrained swing in either direction under the action of the wind.

What I claim as my invention is:—

1. The combination with end supports, of a sign board pivotally suspended between the supports and having the pivot points located towards the upper side of the board, releasable means normally locking the board against swinging and in the upright position, said means being designed to release the board to swing under the action of wind pressure and means connected to the board and designed to permit of a restrained swinging of the board under the action of the wind and to reset the board upon the wind pressure being relieved.

2. The combination with end supports, of a sign board pivotally suspended from the supports and with the pivots located towards the upper side of the board, releasable locking catches engageable with the lower side of the board and normally locking the lower side of the board against swinging and spring controlled anchoring cables attached to the lower side of the board.

3. The combination with end supports, of a sign board pivotally suspended from the supports and with the pivots located towards the upper side of the board, releasable locking catches engageable with the lower side of the board and normally locking the lower side of the board against swinging, winding drums mounted on the lower side of the board, springs associated with the drums and anchoring cables wound on the drums.

Signed at Plainfield, in the county of Union and State of New Jersey, this 21st day of Oct., 1920.

JOHN J. SHOTWELL. [L. S.]

Witnessed by—
HARVEY ROTHBERG.