J. L. BLACKMER.
Signs.

No. 208,060. Patented Sept. 17, 1878.

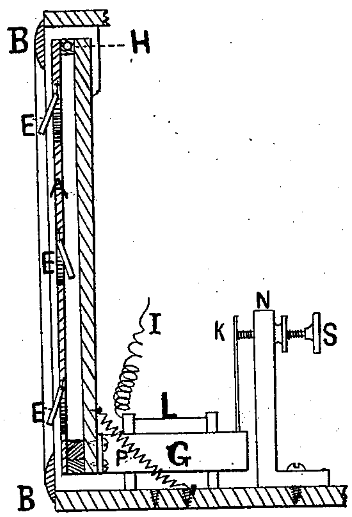

Fig. 2.

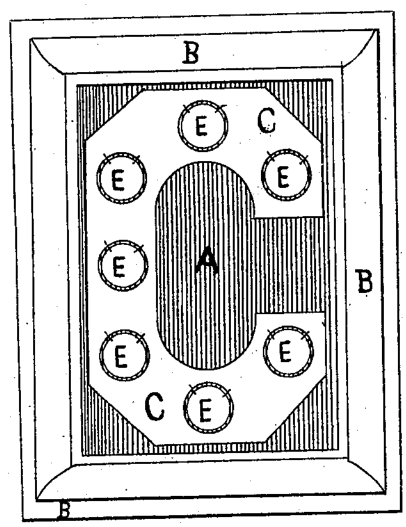

Fig. 1.

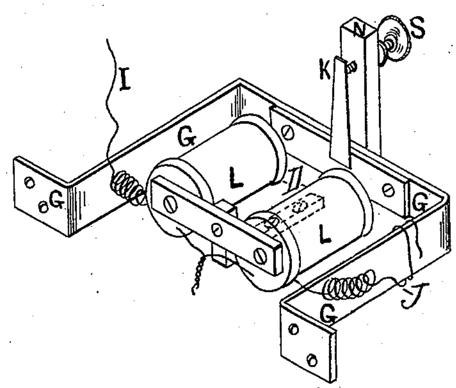

Fig. 3.

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UNITED STATES PATENT OFFICE.

JAMES L. BLACKMER, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES W. TUFTS, OF SAME PLACE.

IMPROVEMENT IN SIGNS.

Specification forming part of Letters Patent No. **208,060**, dated September 17, 1878; application filed March 20, 1878.

To all whom it may concern:

Be it known that I, JAMES L. BLACKMER, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Signs, of which the following is a specification:

The object of my invention is to provide a cheap, simple, and efficient means for imparting motion to trade-signs for store-windows, so as to cause a reflection of the light shining upon the moving parts to attract the attention, and thus draw customers.

Storm-signs have heretofore been constructed to swing, and pendants have been suspended within openings formed through the letters composing the same, so as to be somewhat free to vibrate when the wind should blow with sufficient force to impart the desired motion to the same; but this result cannot be attained in a calm day, thus rendering the attractive feature very limited; and the high exposed positions in many cases adapted to this class of signs are objectionable for many reasons.

The nature of my invention is such that I am enabled to make the sign very attractive at all times, and furthermore be enabled to place it in a store or show window, where it will attract the attention of passers-by to the goods displayed therein; and it consists in mechanism to impart a slight vibrating, oscillating, or swinging motion to the body of the sign, or the letters and characters composing the same, either by means of electricity or by any known method of weights and springs, to be wound up as in clocks or other mechanical means adapted to the purpose.

Figure 1 is a front elevation of a sign constructed according to my invention. Fig. 2 is a vertical section. Fig. 3 is a perspective view of the electro-magnets and bent or curved armature as detached from the sign.

A represents the body or ground-work of the sign, hinged, pivoted, or connected to the outer portion, forming a frame or case, B, so as to allow the body portion A to be slightly vibrated, oscillated, swung, or moved quite rapidly, so as to produce a sort of quivering or shaking motion to the same longitudinally, which act will impart like motions to the pendent pieces E, which are suspended within openings formed through the body portion of the sign A or letter C, as shown; or they may be suspended in front of the body portion of the sign or letters, and the openings through the sign and letters in this case would be omitted, as the same result would be accomplished without such openings, or by forming cavities for the pendent pieces E to vibrate within.

To the bottom or other desired portion of the frame or case B, I arrange a common galvanic battery, D; or the battery may be located at any other convenient or desired position outside or remote from the case B, the opposite poles of the battery being connected to the relay.

H represents pivots by which the pendent sign-body A is pivoted or attached near the top portion of the outer frame, B, so as to allow it to be vibrated by the electro-magnets L, which are secured to the rear projecting bottom or support of the frame B, as shown in Fig. 2; and in rear of the magnets L is secured an upright or vertical standard, N, its upper portion being provided with an adjusting set-screw, S, the point of which comes in contact with the vertical platinum vibrating tongue K, which is secured at its lower end to the curved, bent, or rectangular armature G, which surrounds the magnets L horizontally, and its ends are fitted with holes, as shown in Fig. 3, and secured by screws to the bottom or lower edge of the sign-body A, which has a small spiral buffer-spring, P, attached thereto by one end, its opposite end being secured to the stationary bottom-support B, as shown in Fig. 2, so as to hold the tongue K in contact slightly with the point of the set-screws S.

Now, if the conducting-wires I and J, attached to the poles of the electro-magnets, be connected in the usual manner with a small battery, the armature G will be drawn to the ends of the magnets L, so as to distend the spiral spring P, and thereby the recoil will return it again, by which means a vibrating motion is imparted to the body A of the sign,

thus causing the pendants E to vibrate continually while a battery is connected.

Having thus described my invention, what I claim is—

1. A vibrating sign having pendants operated by means of an electro-magnet, combined with the frame and support, for the sign to vibrate within, substantially as described.

2. In combination with a sign-body, A, pivoted to its frame B, and provided with the pendants E, the curved, bent, or rectangular armature G and spiral spring P, all being constructed and arranged so as to permit of being vibrated substantially in the manner described, as and for the purposes set forth.

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