No. 814,684. PATENTED MAR. 13, 1906

S. W. FLEMING & F. A. CHILDS.

ILLUMINATED SIGN.

APPLICATION FILED JAN. 6, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

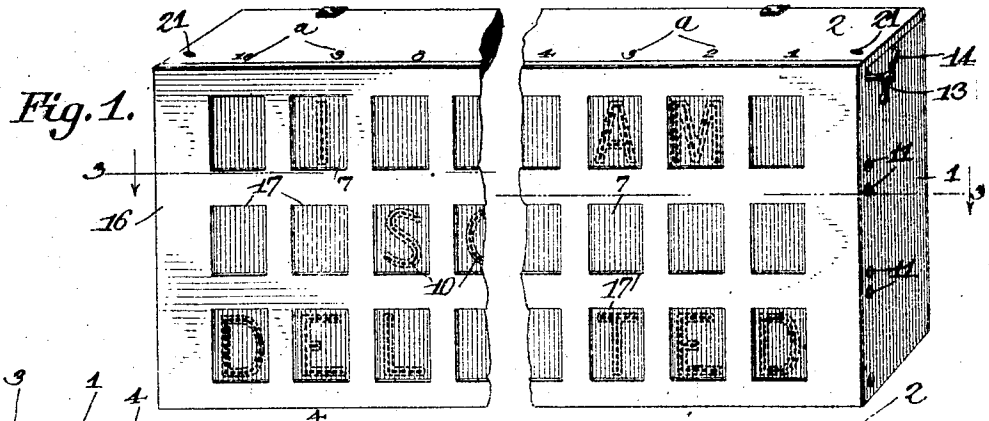


Fig. 2.

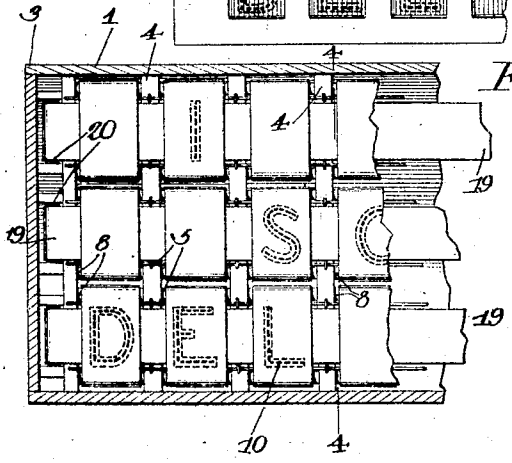


Fig. 4.

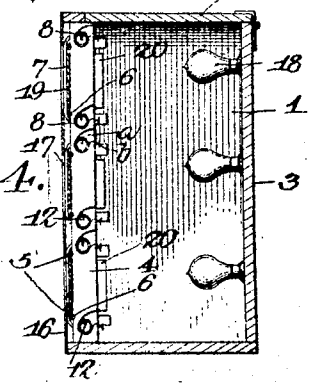


Fig. 6.

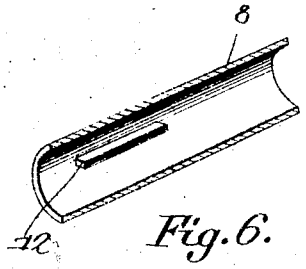


Fig. 7.

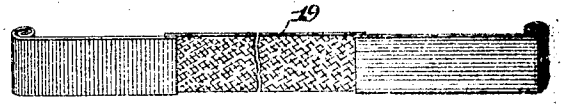
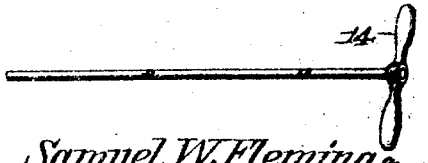


Fig. 5.





Witnesses

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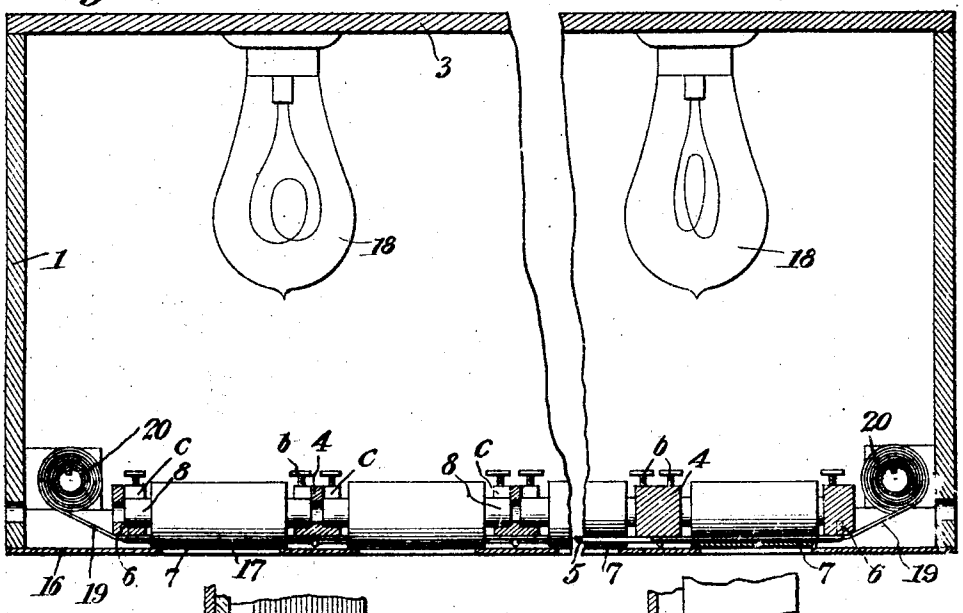
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2 SHEETS—SHEET 2.

Fig. 3.



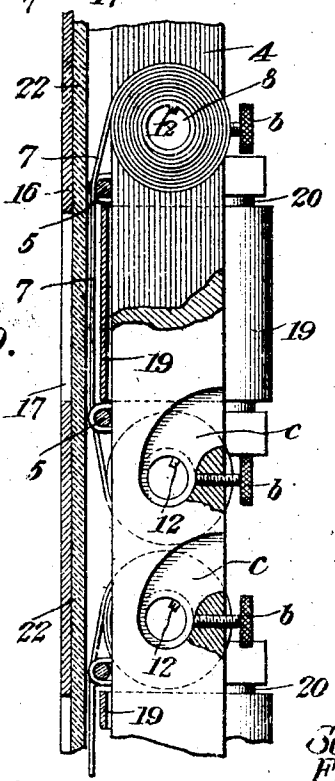


Fig. 9.

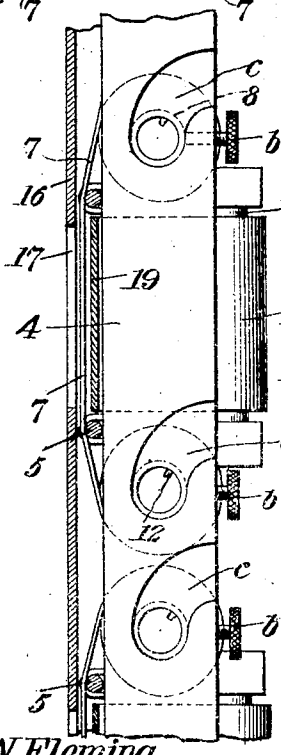


Fig. 8.

Witnesses

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UNITED STATES PATENT OFFICE.

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ILLUMINATED SIGN.

No. 814,684. Specification of Letters Patent. Patented March 13, 1906.

Application filed January 6, 1905. Serial No. 239,914.

To all whom it may concern:

Be it known that we, SAMUEL W. FLEMING and FRANK A. CHILDS, citizens of the United States, residing at New London, in the county of Huron and State of Ohio, have invented a new and useful Illuminated Sign, of which the following is a specification.

This invention relates to signs, and has for its object to provide an improved illuminated sign.

It is also proposed to equip the sign with a plurality of alphabets, several series of numerals, and various other characters which may be conveniently adjusted and set up to display words and numerals of any significance without removing the sign from its support and without taking the sign apart in any particular.

Another object of the invention is to adapt the sign to any character of illumination, such as electricity, gas, oil, and the like.

In connection with the illuminating feature it is also proposed to provide for the convenient change in color of the words, numerals, and other characters without removing or shifting the latter.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a perspective view of an illuminated sign embodying the features of the present invention. Fig. 2 is a front elevation of a portion of the sign with the skeleton front removed. Fig. 3 is an enlarged fragmentary sectional view on the line 3 3 of Fig. 1. Fig. 4 is a cross-sectional view of the sign on the line 4 4 of Fig. 2. Fig. 5 is a detail perspective view of the key employed for adjusting the scrolls of the sign. Fig. 6 is a sectional perspective view of one of the rollers for one of the scrolls. Fig. 7 is a detail perspective view of the color-roll. Fig. 8 is an enlarged detail sectional view taken through the front of the sign. Fig. 9 is a view similar to Fig. 8, showing a modification.

Like characters of reference designate corresponding parts in each and every figure of the drawings.

The body of the present sign is in the nature of a case 1, which might of course be of any shape in accordance with the requirements of its situation, the most general form being that of a rectangular box of suitable dimensions. This case may be of wood, metal, or other suitable material, which is closed upon all sides but the front, through which the advertising matter is to be displayed. For convenience in obtaining access to the interior of the case to repair the elements of the sign, as well as the illuminating means, a suitable door may be provided at any point, a convenient door being formed by hinging the top 2 to the back 3 of the case.

At the front of the case there is a series of uprights or bars 4, which extend from the top to the bottom of the case, thereby dividing the front of the case into upright spaces or columns. Longitudinal rods 5, preferably wires, are stretched from end to end of the case and are received within notches 6 in the front edges of the bars 4.

Within each space or column formed by the upright walls 4 is a series of scrolls 7. Each scroll is formed of flexible light-excluding material, preferably light oil-cloth, with its ends wound upon rollers 8, located, respectively, above and below a pair of adjacent rods 5 and suitably journaled upon the adjacent upright bars 4, with that portion of the scroll which lies between the two rollers located across the front sides of the rods 5 for a purpose as will be hereinafter described. Each end of each roller is removably journaled in an arcuate slot *c*, intersecting the back of the adjacent upright 4, there being a set-screw *b* piercing the back of the upright and entering the slot to prevent displacement of the roller. This scroll carries certain characters to be displayed—as, for instance, an alphabet and a series of numerals from "0" to "9"—one of such characters being indicated at 10, and the outline of each character being formed by perforations through which the light of the illuminating element of the sign is designed to be displayed, thereby to exhibit the character against an otherwise dark background. It will of course be understood that there is a scroll for each pair of rods 5 in each column or space between the upright bars 4, whereby the sign is provided with several series of scrolls embodying du-

plicate characters one of which may be brought to a displayed position between its rolls, and thus advertising matter of any character may be effectually displayed, limited only by the number of scrolls contained in the case.

For convenience in adjusting or setting the scrolls each of the rollers is tubular in form and all of the corresponding rollers are in horizontal alinement, either or both ends of the case being provided with perforations 11 in alinement with the respective series of rolls to give access to their interiors from either end of the case. Within each tubular roll there is a longitudinal rib or shoulder 12, capable of being engaged by a key to rotate the roller, and thereby wind the scroll thereon for the purpose of bringing any one of its characters into displayed position. For this purpose there has been provided a key 13, the stem or shank of which is equal in length to the length of the case if it is to be introduced through one end thereof or equal to one-half of the length of the case if the latter is provided at opposite ends with openings to receive the key. This key is provided at one end with a suitable handle 14, and its opposite end is flattened, as at 15, to provide a ward which is capable of being introduced through any one of the openings 11 in the end of the case and passed through the adjacent series of tubular rollers to any particular roller, whereupon by rotating the key its ward will be brought into contact with the rib or shoulder of the roller and the latter thereby rotated to wind its scroll thereon until the desired character is brought into displayed position. It will of course be understood that the set-screws *d* are loosened prior to the application of the key to enable the rotation of the rollers, the set-screws being retightened after the scroll has been properly set, so as to prevent creeping or looseness of the scroll. The several vertical series of scrolls are numbered consecutively or otherwise designated by a series of characters *a* upon the top of the case, and the shank or stem of the key has corresponding characters, but arranged in reverse order, so that when the key has been introduced into one of the openings 11 and it is desired to adjust one of the scrolls in a predetermined column—say, for instance, the column designated 5—the key will be pushed in until the character "5" upon the stem thereof is adjacent the keyhole, when the ward 15 will lie within the desired roller in the vertical column 5. By means of the key it is apparent that the several scrolls may be individually adjusted to display any one of its characters, and therefore any wording within the capacity of the sign may be quickly set up without dismounting the sign and without detaching any of its parts.

As clearly shown in Fig. 1 of the drawings, it is proposed to conceal substantially all of the respective scrolls, with the exception of the perforate characters to be displayed, and this is accomplished by means of a skeleton front 16, formed of suitable light-excluding material, preferably a sheet of oil-cloth, having openings 17 somewhat less than the several individual spaces bounded by the upright bars 4 and the transverse rods 5, thereby to display the perforate characters only and to effectually conceal the rods, bars, and the intervals between the several scrolls. Hence the perforate characters will be displayed against a dark background.

It will here be explained that the rods 5 pass across the backs of the several scrolls, so as to hold the portions of the latter between the rollers snugly against the front of the case in order to prevent the passage of light outwardly between the edges of the scrolls and the edges of the openings in the front of the case.

As hereinbefore indicated, the illuminating means may be of any character, that shown being in the nature of electric lamps 18 of any appropriate size and character, which are arranged within the case to suit any particular requirements and may be mounted upon any portion of the case, the present embodiment showing the lamps mounted upon the back of the case

To add to the attractiveness of the sign, it is proposed to provide for changing the color of the light displayed through the perforate characters of the scrolls, and in carrying out this object a color-scroll 19 is disposed across the horizontal series of scrolls between the latter and the rods 5, so as to hold the color-scroll snugly against the character-scrolls, the ends of the color-scroll being wound upon upright rollers 20, journaled within the case at opposite ends thereof. Each scroll is formed of thin transparent material, preferably tissue-paper, and is made up of a series of different color-strips having their ends pasted or otherwise secured in order that they may be successively unwound and stretched across the scrolls between the latter and the illuminating means, whereby any color of light may be emitted through the perforate characters of the character-scrolls, whereby a very attractive illuminated sign is produced. The rollers 20 of the color-scrolls are tubular and in alinement, the top of the case being provided with a keyhole 21 to receive the key 13, and each roller is provided with an internal longitudinal rib or shoulder for engagement by the ward of the key to effect rotation of the roller for the purpose of bringing any portion of the scroll into position for use.

From the foregoing description it is apparent that the device of the present invention is entirely complete in itself and may be conveniently mounted after the manner of any

ordinary sign, and at the same time the character-scrolls may be conveniently set to display any character and amount of advertising matter, limited only by the number of character-scrolls contained in the case. Furthermore, the advertising matter may be readily changed from time to time without taking the sign down or dismantling the same in any manner whatsoever, as the adjusting-key has access to each and every scroll. Moreover, the sign is adaptd to any character of illumination, as it may be readily connected to electric-light wires and with gas-pipes, and where such sources of illumination are not possible oil, gasolene, or other character of lamps may be employed.

Should it be found necessary to protect the perforate scrolls, a transparent plate 22, preferably glass, may be interposed between the scrolls and the front of the casing, so as to shield the scrolls from external blows without obscuring the letters or other characters formed therein.

Having fully described the invention, what is claimed is—

1. In a sign, the combination with a case, of a series of individual character-bearing scrolls having open-ended tubular rollers in longitudinal alinement, each roller being provided with an internal key-seat, the case being provided with openings in alinement with the respective series of rollers, and a key capable of being inserted through any of the perforations in the case and through the rollers, said key having a ward for engagement with the key-seats of the respective rollers and also provided upon its stem with a scale having its elements successively spaced in accordance with the distances between the seats of the successive rollers.

2. In an illuminated sign, the combination with a case having a series of exposure-openings in its front, cross-bars within the case adjacent the front thereof and located opposite the intervals between the exposure-openings, the backs of the bars being provided with roller-bearing slots, a series of scrolls having their rollers mounted in the respective slots of the cross-bars, rods extending across the front edges of the cross-bars in engagement with the rear sides of the scrolls to hold the latter against the front of the case, and endwise-adjustable color-strips interposed between the cross-bars and the backs of the scrolls and located between adjacent pairs of rods.

3. In a sign, the combination of a case having spaced upright bars at the front thereof, scrolls disposed in the spaces between the bars and arranged in horizontal and vertical series, each scroll having substantially horizontal rollers mounted upon the adjacent bars and carrying matter to be displayed, a light-excluding front having openings to expose the data of the respective scrolls, rods extending transversely across the front of the upright bars and against the backs of the scrolls to hold the latter against the light-excluding front, and color-scrolls extending across the backs of the horizontal series of character-scrolls, each color-scroll being disposed between the horizontal rods and also between the backs of the character-scrolls and the front of the upright bars.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

SAMUEL W. FLEMING.
FRANK A. CHILDS

Witnesses:
E. M. PAHUER.
C. B. WEIDMAN.