

UNITED STATES PATENT OFFICE.

EDWARD BAMBECK, OF KALAMAZOO, MICHIGAN, ASSIGNOR TO AMERICAN SIGN COMPANY, OF KALAMAZOO, MICHIGAN.

SIGN.

1,132,823.

Specification of Letters Patent.

Patented Mar. 23, 1915.

Application filed November 23, 1911. Serial No. 661,962.

To all whom it may concern:

Be it known that I, EDWARD BAMBECK, a citizen of the United States, residing at the city of Kalamazoo, county of Kalamazoo, and State of Michigan, have invented certain new and useful Improvements in Signs, of which the following is a specification.

This invention relates to improvements in signs.

My improvements are particularly applicable to the lens type of signs, that is, one in which the characters or other indicia or ornamental features are formed by the use of lenses such as for instance is shown in the Smith Patent No. 962,724, June 28, 1910, although certain features thereof are of advantage for use in other relations.

The main objects of this invention are, first, to provide an improved sign structure of the lens type adapted to produce the effect or illusion of movement; second, to provide an improved sign or apparatus of the lens type adapted to produce the effect or illusion of movement which is simple and economical in structure and economical to operate; third, to provide an improved sign of the lens type adapted to produce the effect or illusion of liquid flowing into a receptacle.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification. The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure I is a front or face view of a structure embodying the features of my invention, the same being designed to illustrate a faucet, a receptacle and a stream from the faucet to the receptacle. Fig. II is a detail vertical section taken on a line corresponding to line 2—2 of Fig. III. Fig. III is a detail vertical section taken on a line corresponding to line 3—3 of Figs. I and II. Fig. IV is a detail vertical section taken on a line corresponding to line 4—4 of Fig. II. Fig. V is a transverse horizontal section taken on a line corresponding to line 5—5 of Fig. II.

In the drawing, similar reference char-

acters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, the structure illustrated is a double faced structure, that is, it has two face plates 1. These form the opposite sides or walls of the casing. As the structural details of the casing form no part of my present invention, I do not give a detailed description thereof herein. The casing is provided with horizontal partitions 2 and 3 forming a top compartment 4, a bottom compartment 5 and an intermediate compartment 6. The face walls of the top compartment have lenses 7 arranged therein to outline a faucet. The face walls of the bottom compartment have lenses 7 arranged therein to represent a cup, and the word "Soda". The face walls of the intermediate compartment are provided with series of groups of lenses 8, the lenses of the groups being arranged in horizontal alignment, and preferably with gradually widening spaces between the groups. The lower groups are also provided with more lenses than the upper to secure a downwardly expanding effect.

Within the bottom compartment 5 is an inner compartment 9 having a series of groups of lenses 10, the lenses of the groups being arranged in horizontal alignment. This series of lenses is arranged below the series of lenses 10, in the compartment 6. At each side of the compartment 9 is a compartment 9' having a series of group of lenses 10'.

A series of lamps 11 are provided for the series of lenses 8, the lamps being arranged to correspond to the lens units or groups of the series, preferably in alignment with and at one side thereof. At the other side of the lenses is a vertically disposed reflector plate 12. This plate extends between the partitions 2 and 3 of the casing and across the same, forming in effect, a partition. Horizontally disposed reflecting partitions or plates 13 are arranged between the groups of lenses to extend from this upright or longitudinal reflector toward the lamps. The outer ends of these plates 13 are disposed adjacent but do not extend between the lamps. Their inner ends are provided with openings 14. These openings are preferably notch-like as shown and centrally

disposed, particularly where the sign is a double faced one. The reflector plates 13 permit the passage of a portion of the reflected rays so that when a lamp is flashed its corresponding indicia unit is fully illuminated and the adjacent indicia units at each side are but partially illuminated. When the lamps are successively flashed a very satisfactory moving effect is produced.

The plates 12 and 13 are formed of sheet metal and in practice, are preferably enameled to provide a better reflecting surface. The plates 13 are provided with flanges 15 at one edge through which the securing bolts 16 are arranged. This provides a simple and effective means of supporting these plates between the groups of lenses.

The compartment within the base compartment is provided with plates 17 arranged between the groups of lenses 10, substantially as is described, for the groups of lenses of the compartment 6. These groups of lenses 10 are provided with lamps 18 arranged substantially like the lamps 11 of the groups 8. The groups of lenses 10' in the compartment 9' are provided with reflector plates 19 corresponding to the plates 17 of the compartment 9. A lamp 20 is provided for each of these lens groups or units. The reflector plates 21 for the two bottom groups of lenses in the series 8 within the compartment 6, preferably extend only partially across the casing, the object being to less completely cut off the light from the lamps from one unit of lenses to the adjacent unit.

This arrangement of parts described, is to secure the effect of a stream flowing from the faucet into the cup, the cup gradually filling, the filling effect being secured by the lamps and lenses of the compartment 9 and 9'.

I have not attempted to illustrate the flashing means, but it will be understood that in practice the different lamps or sets of lamps are flashed at different times.

While I have used the designation signs in describing my improvements and have shown and described the same embodied in a sign structure, I am aware that they are applicable and desirable for use in a structure designed for ornamental purposes only.

My improvements are applicable to signs or ornamental apparatus representing a great variety of objects, such as waving flags, fountains, streams, moving figures and the like, where the illusion of movement is described, and I believe that from the disclosure made, that the application of my invention to represent various objects will be readily understood by those skilled in the art to which this invention relates. I desire to be understood as claiming the same specifically as embodied in the structure illus-

trated, as well as broadly, within the scope of the appended claims.

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

1. In a structure of the class described, the combination of a double faced casing, a series of groups of lenses arranged in each face plate of said casing, the corresponding groups in the two series being alined, a series of lamps corresponding to the said groups of lenses arranged in said casing at one side of said groups of lenses, a longitudinal reflector plate arranged in said casing at the other side of said groups of lenses, and a series of transverse reflector plates having notches at one end disposed in said casing between said groups of lenses with their notched ends at said longitudinal reflector plate and their other ends adjacent but not extending between said lamps.

2. In a structure of the class described, the combination of a casing, a series of groups of lenses arranged in the face plate of said casing, a series of lamps corresponding to the groups of lenses arranged within the casing at one side of and to the rear of said groups of lenses, a longitudinal reflector plate arranged at the other side of said groups of lenses, and a series of transverse reflector plates disposed within said casing between said groups of lenses with one end adjacent to but not extending between said lamps, said plates being constructed and arranged to permit the passage of a portion of the reflected rays between them and said longitudinal reflector plate.

3. In a structure of the class described, the combination of a casing, a series of groups of lenses arranged in the face plate of said casing, a series of lamps corresponding to the groups of lenses arranged in said casing at one side of said groups of lenses, and a series of reflector plates disposed in said casing between said groups of lenses with one end adjacent to but not extending between said lamps, said plates being constructed and arranged to provide openings at their other ends for the passage of a portion of the reflected light, all coacting for the purpose specified.

4. In a structure of the class described, the combination of a casing, a series of groups of lenses arranged in the face of said casing, a corresponding series of lamps arranged in said casing at the rear of said groups of lenses, and a series of plates disposed within said casing between said groups of lenses, said plates being constructed and arranged to obstruct the passage of direct rays from the lamp of one group of lenses to the lenses of the groups at each side thereof and to permit the passage of a portion of the reflected rays to such groups, said plates constituting reflecting members.

5. A structure of the class described, comprising a casing, a series of indicia units arranged in one face of said casing, a corresponding series of lamps arranged within the casing at the rear of and at one side of said indicia units, and reflector plates disposed within the casing between said indicia units to obstruct the passage of direct rays from the lamp of one indicia unit to the adjacent indicia units, said plates being arranged within said casing to permit the passage of a portion of the reflected rays at each end thereof.

6. In a structure of the class described, the combination of a casing, a series of indicia units arranged in the face wall of said casing, a corresponding series of lamps ar-

ranged within said casing at the rear of said indicia units, and a series of plates arranged within the casing between said indicia units, said plates being constructed and arranged to obstruct the passage of direct rays from the lamp of one indicia unit to the indicia units at each side thereof and to permit the passage of a portion of the reflected rays to such units, said plates constituting reflecting members.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

EDWARD BAMBECK. [L. S.]

Witnesses:

FANNIE ROOT,
C. M. DAVIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

E. BAMBECK.

SIGN.

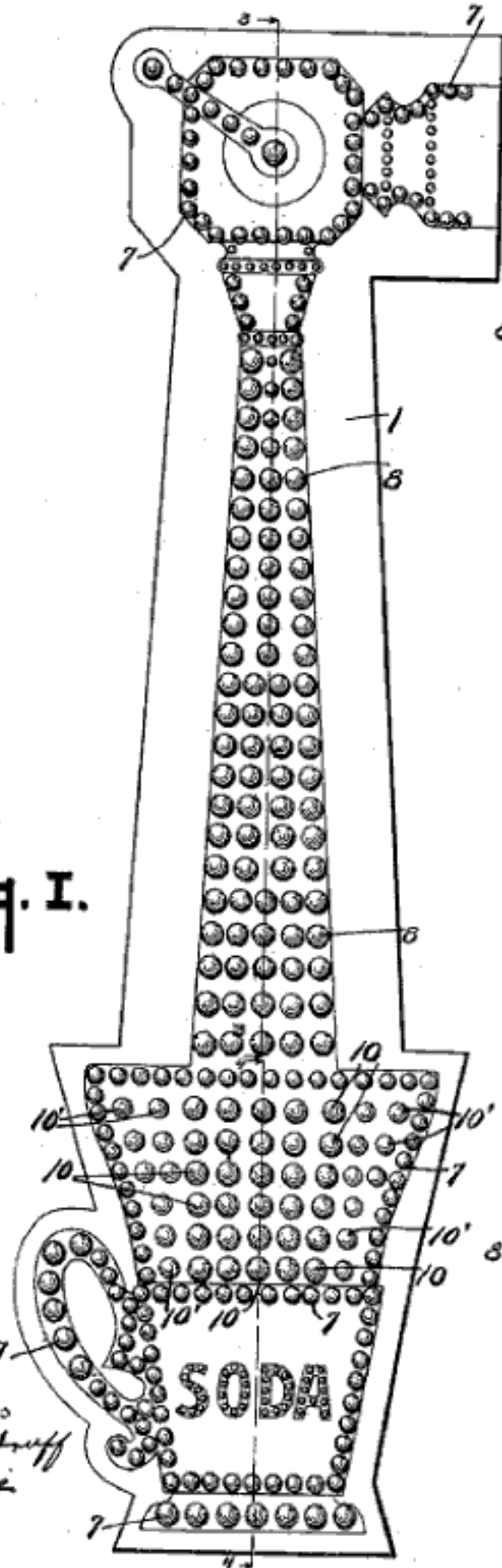
APPLICATION FILED NOV. 23, 1911.

1,132,823.

Patented Mar. 23, 1915.

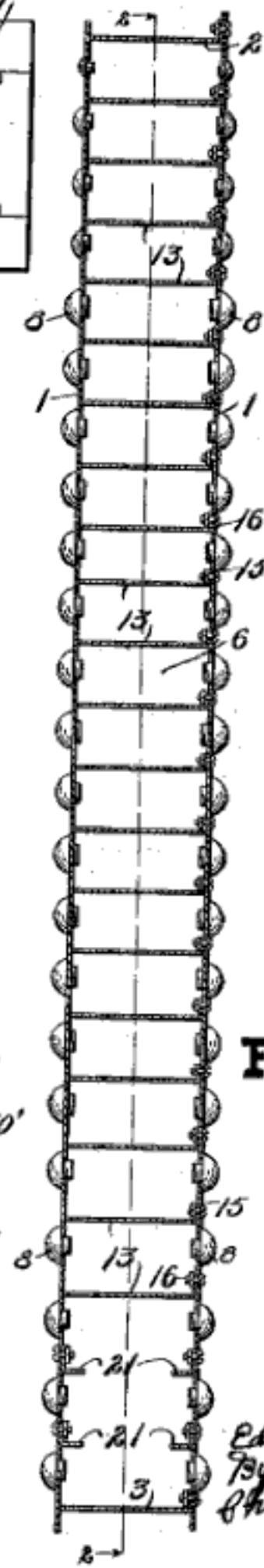
2 SHEETS-SHEET 1.

Fig. I.



Witnesses
M. P. Woodruff
F. E. Lillie

Fig. III.



Inventor

Edward Bambeck
 By *Shappell & Co.*

Attorneys

E. BAMBECK.

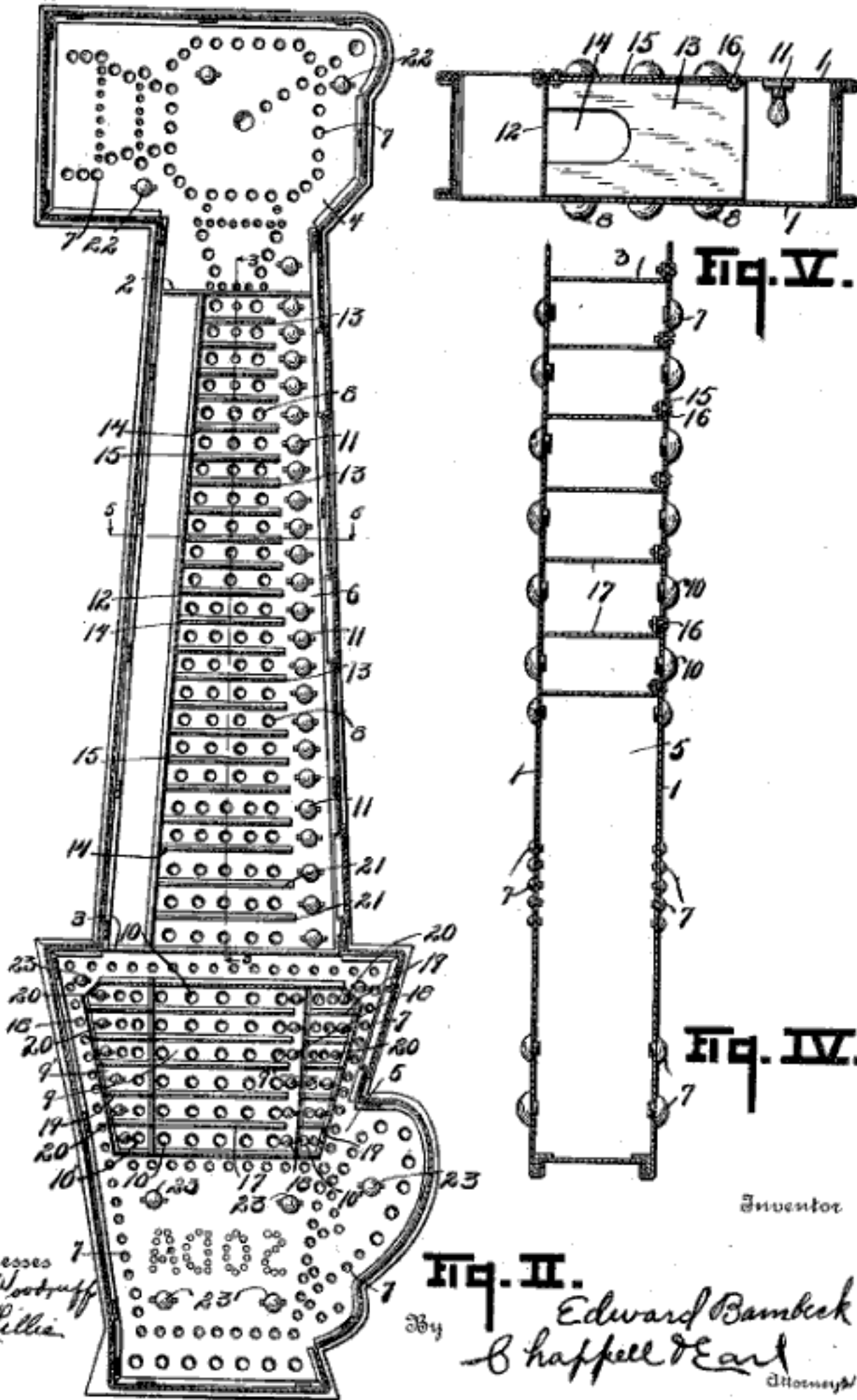
SIGN.

APPLICATION FILED NOV. 23, 1911.

Patented Mar. 23, 1915.

3 SHEETS-SHEET 2.

1,132,823.



Witnesses
 M. G. Woodruff
 P. S. Lillie

Fig. II.
 Edward Bambeck
 Chappell & East
 Attorneys

Inventor