

Dec. 23, 1941.

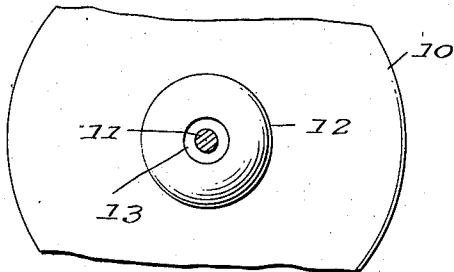
E. S. PIETRKOWSKI

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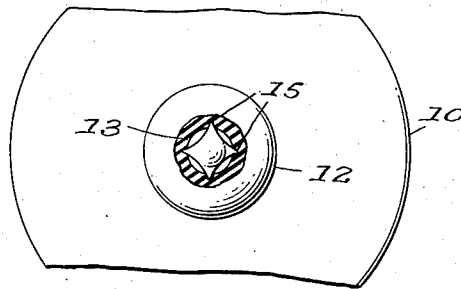
SIGNALING DEVICE

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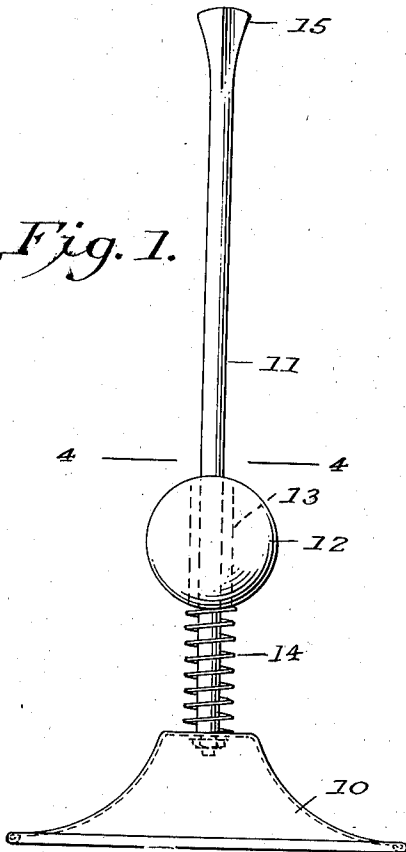
*Fig. 4.*



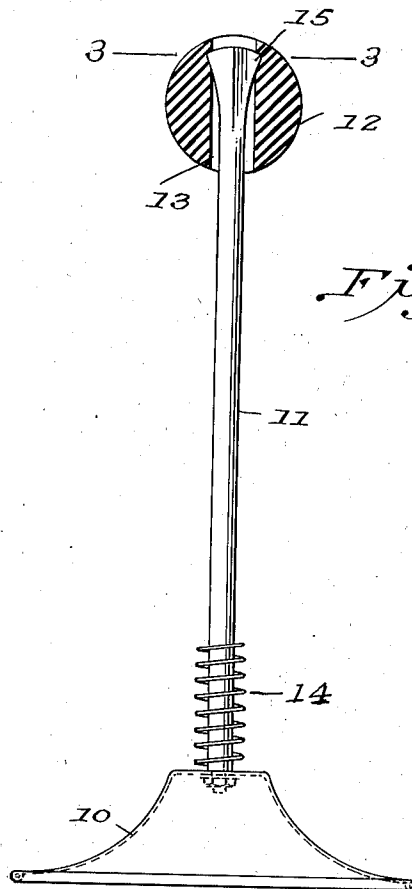
*Fig. 3.*



*Fig. 1.*



*Fig. 2.*



Inventor

ERNEST S. PIETRKOWSKI

By *Hornidge and Dowd*

Attorneys

## UNITED STATES PATENT OFFICE

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## SIGNALING DEVICE

Ernest S. Pietrkowski, New York, N. Y., assignor  
to Consolidated Molded Products Corporation,  
Scranton, Pa., a corporation of Delaware

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5 Claims. (Cl. 116—135)

This invention relates to signaling devices and has for an object to provide a light and portable device which is adapted to rest upon a restaurant table and whereby the attention of a waiter may be effectively secured by a person seated thereat. A further object is to provide in such a device simple and easily operated means for bringing it from a neutral to an effective signaling position with a minimum of effort on the part of the person operating it. A still further object is to provide such a device consisting of but few parts and easy and economical to manufacture.

Other and further objects and advantages will appear from the following description of one embodiment of the invention, in connection with the annexed drawing in which

Fig. 1 is an elevation showing the device in its ineffective or non-signaling position;

Fig. 2 is an elevation, partly in section, showing the device of Fig. 1 in its effective or signaling position.

Fig. 3 is a section on the line 3—3 of Fig. 2, and

Fig. 4 is a section on the line 4—4 of Fig. 1.

Referring to the drawing, 10 is a suitable base in which is vertically mounted a guide rod 11 of metal or other suitable material. Slidably mounted on said rod is the signaling member 12 which may be of any appropriate form and color such as a white sphere, provided with a cylindrical bore 13 extending therethrough to receive said rod 11 upon which it may freely slide.

Encircling the rod 11 and seated upon the base 10 is a coil spring 14 upon which the signaling member normally rests, and which, when put under compression by a downward pressure of the hand upon the signaling member 12 and then released, is adapted to drive said signaling member to the upper end of the rod 11.

The signaling member 12 is preferably composed of a light, yielding, resilient material, such, for instance, as cork or soft rubber, or it may be composed of a hard material possessing little or no resiliency, in which case the walls of the bore 13 may consist of an inserted sleeve or bushing of cork, soft rubber or other suitable material.

The rod 11 is cylindrical in cross section for the greater portion of its length. Towards its upper end, however, it is curvilinear quadrilateral in cross section and flares outwardly at a slight angle, thus gradually increasing the thickness of the rod 11 towards the top where it is greater than the diameter of the bore 13, and providing four diverging corner edges 15 to engage the

walls of the bore 13. The extent of such gradual increase in the thickness of the upper portion of the rod 11 is just sufficient so that in relation to the driving power of the spring 14 the walls of the bore 13 will yield sufficiently to permit only a part of the signaling member 12 to pass beyond the top of the rod where, however, it will be brought to a stop and held in such position by the progressive wedging of the diverging corner edges 15 into the yielding resilient walls of the bore 13 as shown in Figs. 2 and 3.

The operation of the device is as follows: When, for instance, the customer in a restaurant wishes to signal a waiter he presses downward upon the signaling member 12 so as to compress the spring 14 and immediately lets go. The signaling member 12 is then driven by the expansion of the spring upward on the rod 11 until it encounters the diverging corner edges 15, when the yielding quality of the material forming the inner walls of the bore 13 permits the signaling member 12 to continue a short distance beyond until it is brought to a stop and is held there in such upper position, thereby notifying the waiter who sees it that his services are required at that particular table. The signaling member may be then pressed down by the hand to a position beneath the top of the rod 11 from which it will fall to its non-signaling position at rest upon the spring 14.

It is preferable for ease of operation that the spring 14 be such as not to require very much force to compress it and only of sufficient expansive power to drive the signaling member 12 partly beyond the top of the rod, which in turn will require that the said signaling member be light in weight, that the resilient material forming the walls of the bore 13 be sufficiently yielding, and that the extent of flare or angle of divergence of the corner edges 15 be such as to permit the said corner edges to wedge gradually into the walls of the bore for a portion of its length. Furthermore, the increased thickness of the rod at the top should be sufficient to prevent the signaling member from being driven off the rod. All of these factors may, however, be easily determined by one skilled in the art.

The flaring upper portion of the rod may be in the form of an inverted cone to achieve similar results, but the polygonal cross-sectional form herein described has the advantage that it engages the walls of the bore only along a number of lines instead of throughout its inner circumference thus preventing wear on said walls in

long use of the device and, since the signaling member is rotatable on the rod, successively new portions of the walls will be engaged by the said corner edges of the rod in the course of ordinary use. The top of the rod should preferably be rounded as shown in the drawing so as not to injure the hand when the signaling member is pressed down by the palm.

It is to be understood that the invention is to be in no wise restricted to the embodiment illustrated or referred to, but that modifications may be made without departing from the spirit or sacrificing any of the advantages of the invention.

What I claim is:

1. A signaling device comprising an upwardly extending guide, a signaling member provided with a bore slidably mounted on said guide, the walls of said bore being composed of a yielding resilient material, a spring located adjacent the lower end of said guide in operative relationship with said signaling member and adapted when energized to drive said signaling member upwardly along said guide and means for limiting the upward travel of said signaling member to a selected position on said guide and retaining it in such selected position, said limiting and retaining means comprising an enlargement of said rod coacting with the walls of said bore.

2. A signaling device comprising a base, a rod mounted on said base and extending upwardly therefrom, a signaling member provided with a bore formed of a yielding resilient material adapted to receive said rod and permit said signaling member to slide freely on said rod, a spring located at the lower end of said rod in operative relationship with said signaling member and adapted when energized to drive said signaling member to the top of said rod, the top portion of said rod being provided with an enlarged portion thereof to wedge tightly in the bore of said signaling member, thereby to limit the travel of said signaling member and hold it securely at the top of said rod.

3. A signaling device comprising a base, a rod mounted on said base and extending upwardly therefrom, a signaling member provided with a bore formed of a yielding resilient material adapted to receive said rod and permit said signaling member to slide freely upon said rod, a compressible helical spring supported on said base and forming a support for said signaling member and adapted when compressed to drive said signaling member to the top of said rod, the top portion of said rod being provided with an enlarged portion thereof to wedge tightly in the bore of said signaling member, thereby to limit the travel of said signaling member and hold it securely at the top of said rod.

4. A signaling device comprising a base, an upwardly extending guide, a signaling member provided with a bore slidably mounted on said guide, the walls of said bore being composed of a yielding resilient material, means located adjacent said base in operative relation with said signaling member and adapted to drive said signaling member upwardly away from said driving means along said guide and means for limiting the upward travel of said signaling member to a selected position on said guide and retaining it in such selected position, said limiting and retaining means comprising an enlargement of said rod coacting with the walls of said bore.

5. A signaling device comprising a base, a longitudinally extending guide, a signaling member provided with a bore slidably mounted on said guide, means located adjacent said base in operative relation with said signaling member and adapted to drive said signaling member away from said driving means along said guide, and means carried by said guide and coacting with the walls of said bore to limit the travel of said signaling member to a selected position on said guide and retain it in such position.

ERNEST S. PIETRKOWSKI.