E. KAN.

GRIPPING DEVICE.

APPLICATION FILED JUNE 12, 1908.

924,238. Patented June 8, 1909.

Fig. 2

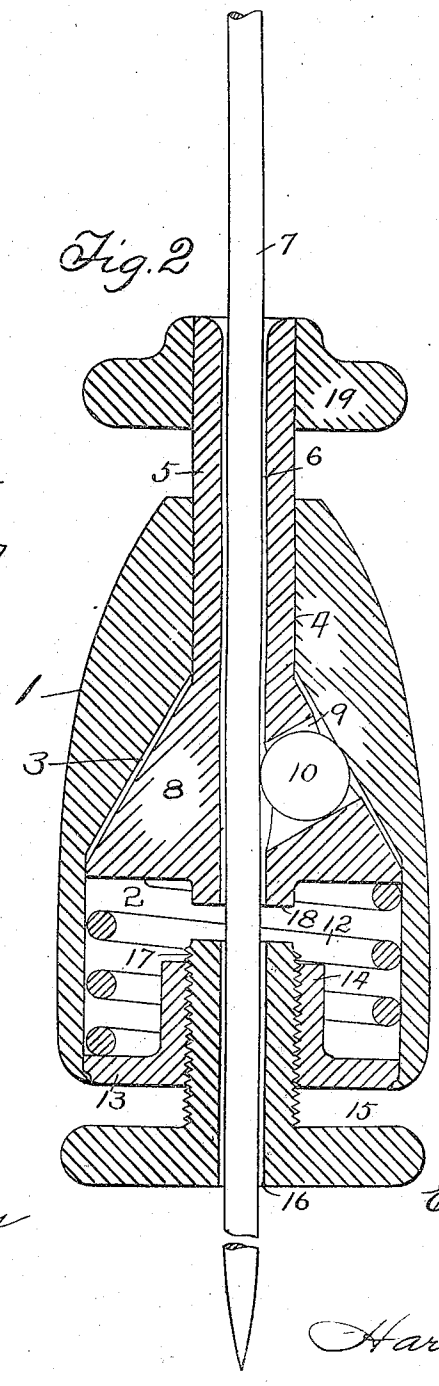


Fig. 1

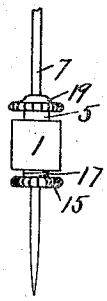
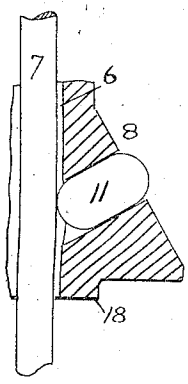


Fig. 3



Witnesses

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UNITED STATES PATENT OFFICE.

EZEKIEL KAN, OF LOS ANGELES, CALIFORNIA.

GRIPPING DEVICE.

No. 924,238. Specification of Letters Patent. Patented June 8, 1909.

Application filed June 12, 1908. Serial No. 438,238.

To all whom it may concern:

Be it known that I, EZEKIEL KAN, a citizen of the United States of America, residing at Los Angeles, county of Los Angeles, State of California, have invented a certain new and useful Gripping Device; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a gripping device, and has for one of its objects to provide a device of that character, the action of which under normal conditions of use, is adapted to prevent the withdrawal therefrom of a scarf-pin or the like; but which may be operated at will for the purpose of withdrawing the scarf-pin.

Another object of the invention is to provide a simple and compact form of construction for the device, which permits ease of operation and whereby neatness of appearance is attained; and in which the parts are strong, cheap to manufacture, and readily assembled in making up the device.

Still another object of the invention is to provide means by which the device may be positively locked in position.

Other objects and the advantages of the invention will be apparent from the following description of several forms of construction in which the invention may be embodied, and which are illustrated in the accompanying drawings, in which,

Figure 1 is a somewhat enlarged view, in elevation, of the device. Fig. 2 is a greatly enlarged longitudinal sectional view of the device, the shell or casing being of a slightly different form from that shown in Fig. 1. Fig. 3 is a detail, in section, of a modification of the gripping means.

Referring to the drawings, reference numeral 1 designates a shell or casing which may take either of the forms shown in Figs. 1 and 2. The bore of the shell is preferably made with a lower portion 2 thereof enlarged and of uniform cross-section, and with a converging portion 3 above the portion 2.

In the upper part of the shell is a central cylindrical opening 4 which communicates with the upper end of the converging portion 3 of the bore. Fitting in the opening 4 is a tubular member 5, in which the opening 6 is provided, which opening is preferably made slightly flaring at the upper end to permit easy insertion of the pin 7 therein. The lower portion 8 of member 5 is made diverging and formed to fit, somewhat loosely, in the space of the converging portion 3 of the bore. In the diverging portion 8 are provided openings or ways 9, which preferably have a direction normal to the exterior surface of portion 8 and are extended to communicate with the opening 6 in member 5.

Disposed in the openings or ways 9 are flat disks or balls 10, (Fig. 2), or round-ended pins 11 (Fig. 3); for a purpose hereinafter mentioned.

Below member 5 and pressing thereagainst is a spring 12 arranged in the enlarged portion 2 of the bore and resting against the interior walls of the shell and upon a piece 13, which latter is secured in the lower end of the bore and is provided with an annular threaded flange 14 extending inwardly centrally of the bore and of the spring. Fitted in the threaded flange 14 is a milled headed screw 15 provided with a central opening 16 in registry with the opening 6 in member 5 and which has its shank 17 of such length that the end thereof may be made to abut the projection 18 on the bottom of member 5. On the upper end portion of member 5 is mounted a part 19 suitably formed to permit finger pressure to be exerted on the member.

In assembling the parts of the device the balls are first placed in the ways 9 in the member 5, whereupon the member is positioned in the shell by passing it in from the lower end of the shell. The spring 12 may then be arranged in the bore, and the piece 13 pressed into the bore; which piece may be retained in position by peening over the lower end of the shell. The part 19 may be pressed in position on member 5 after the screw 15 has been screwed into threaded flange 14 so that the end of the shank 17 prevents movement of the member.

The invention having been described, its operation will now be explained. When it is desired to use the device to hold a scarf-pin or the like, the screw 15 is manipulated to bring the end of its shank 17 away from the bottom of member 5, whereupon the pin may be passed through the respective openings 6 and 16, in the member 5 and the screw 15, and when suitably adjusted in position the screw may be screwed up against the member 5 to prevent any movement of the latter; whereby, as will be understood, the pin is locked in position because of the grip-

ping action of the device, caused by the balls in the ways 9 jamming between the pin and the shell. In order to withdraw the pin from the device, the screw is manipulated and moved away from the bottom of member 5, whereupon by finger pressure on the part 19 of the member, the lower portion of the latter may be moved to a position where the balls are free to move without jamming between the pin and the shell.

It will be noted that the device shortens in length on the insertion of a pin in the member 5; the shortening being proportionate to the diameter of the pin.

I claim:

The combination of a shell and a spring-pressed member therein, said shell and said member being provided with means to permit the insertion of a pin therein, and with means coacting to prevent the upward movement of the pin when the member is normally pressed in one direction by the spring and to release the pin when the member is moved in the opposite direction against the force of the spring, and adjustable means by which the movement of the member in said opposite direction may be prevented.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses at Los Angeles county of Los Angeles, State of California, this 6th day of June A. D. 1908.

EZEKIEL KAN.

Witnesses:

ALEX. H. LIDDERS,

ANNA B. DESSAU.