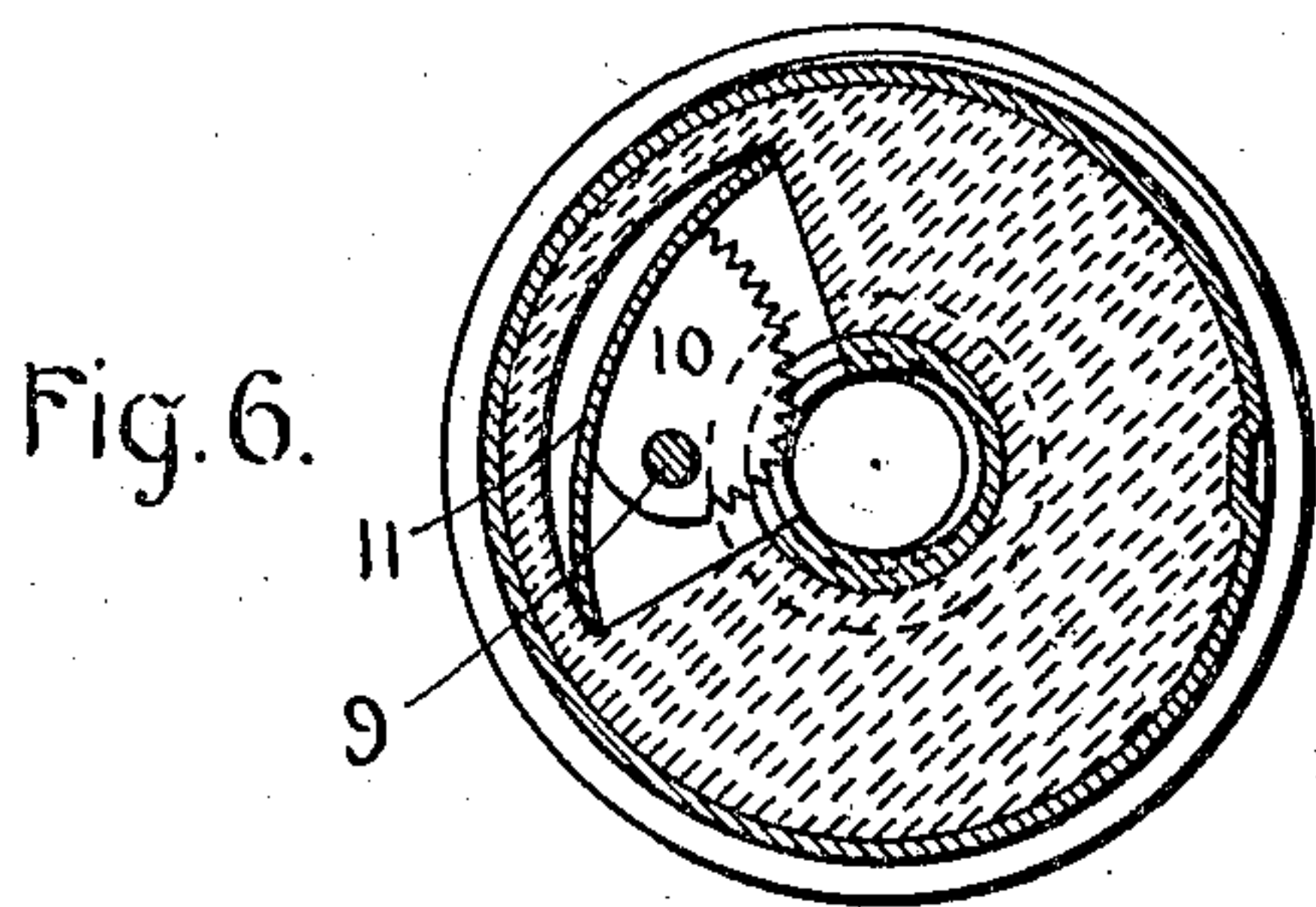
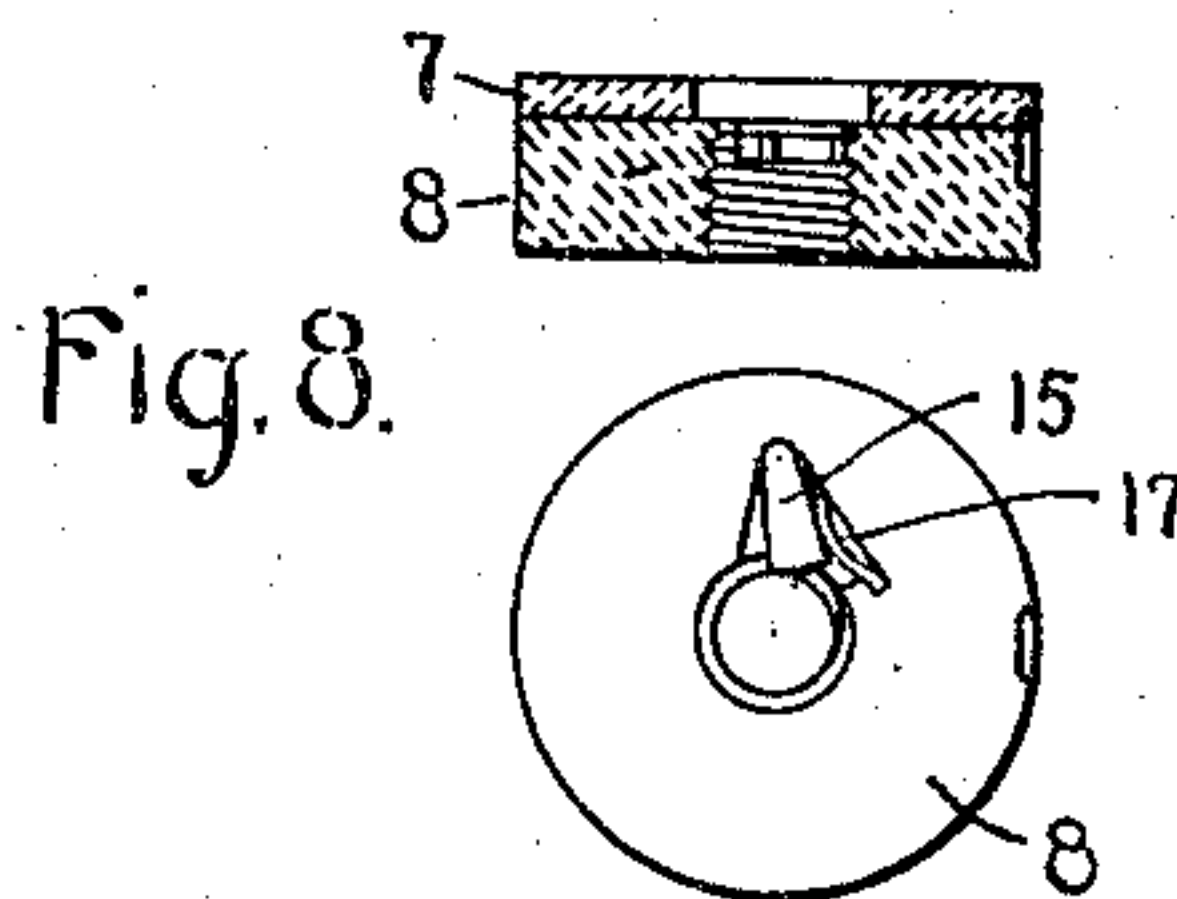
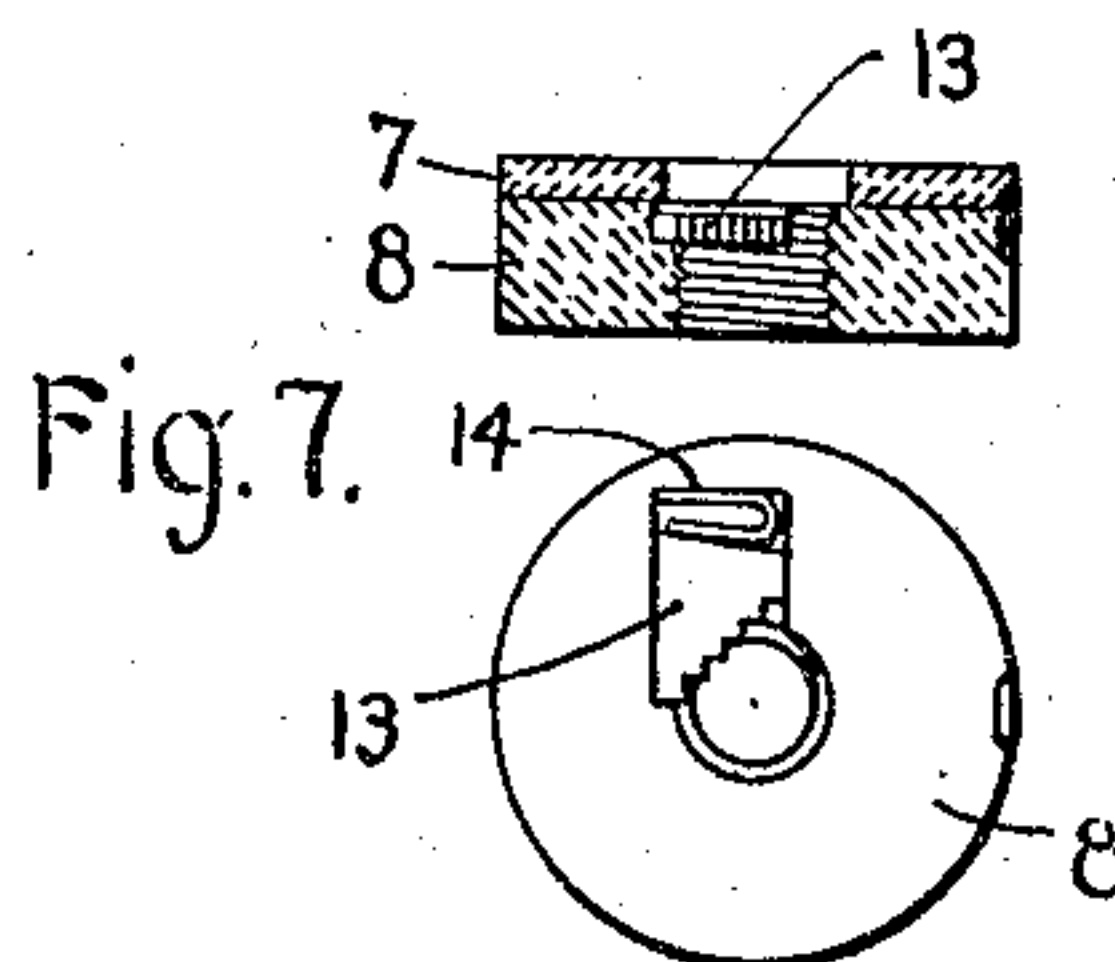
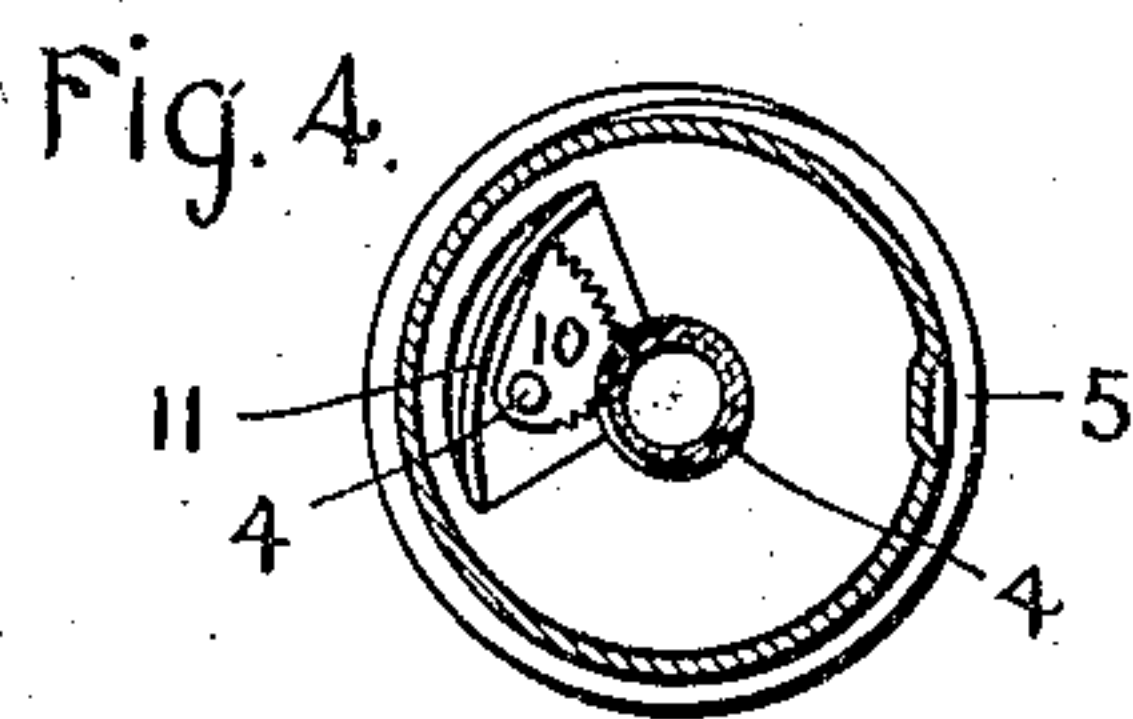
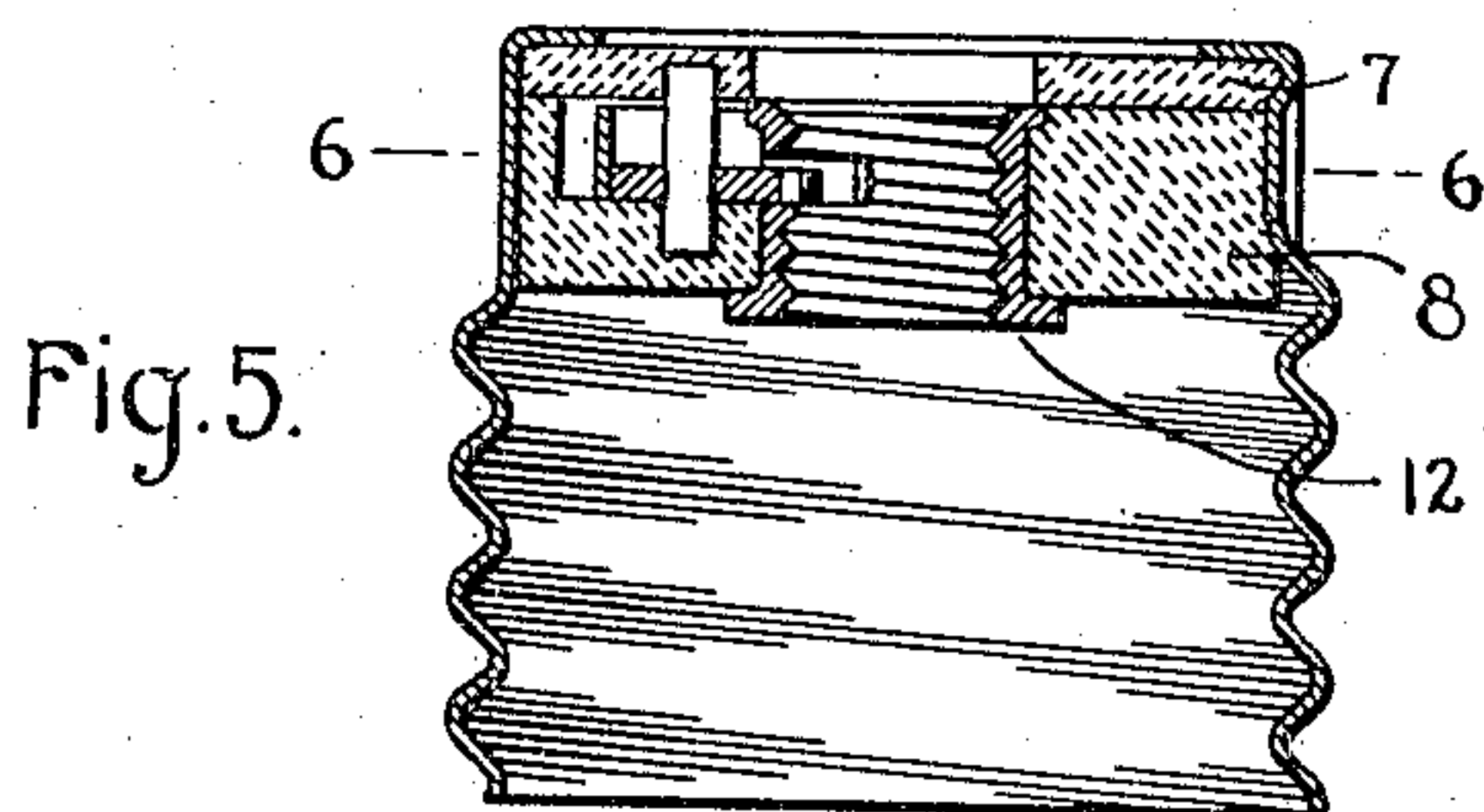
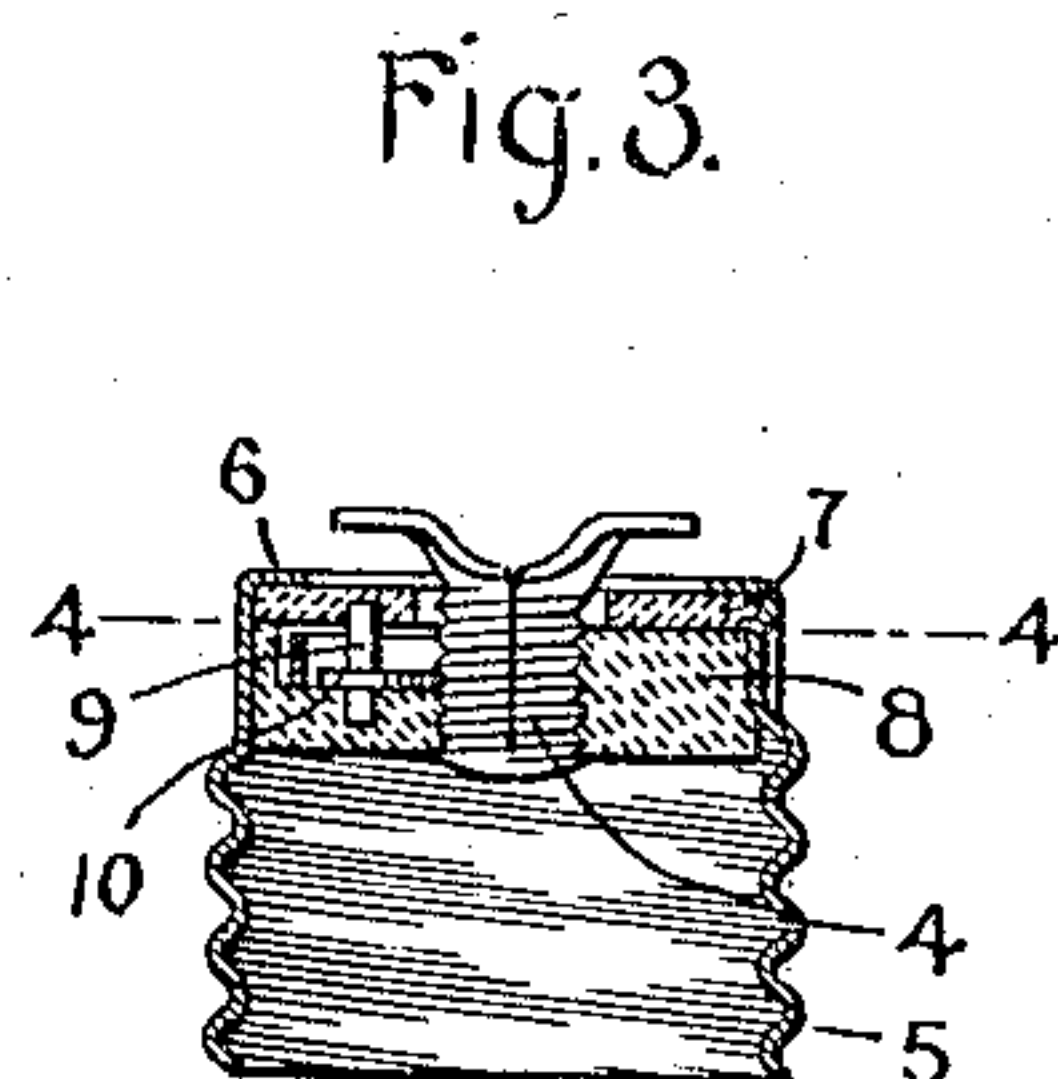
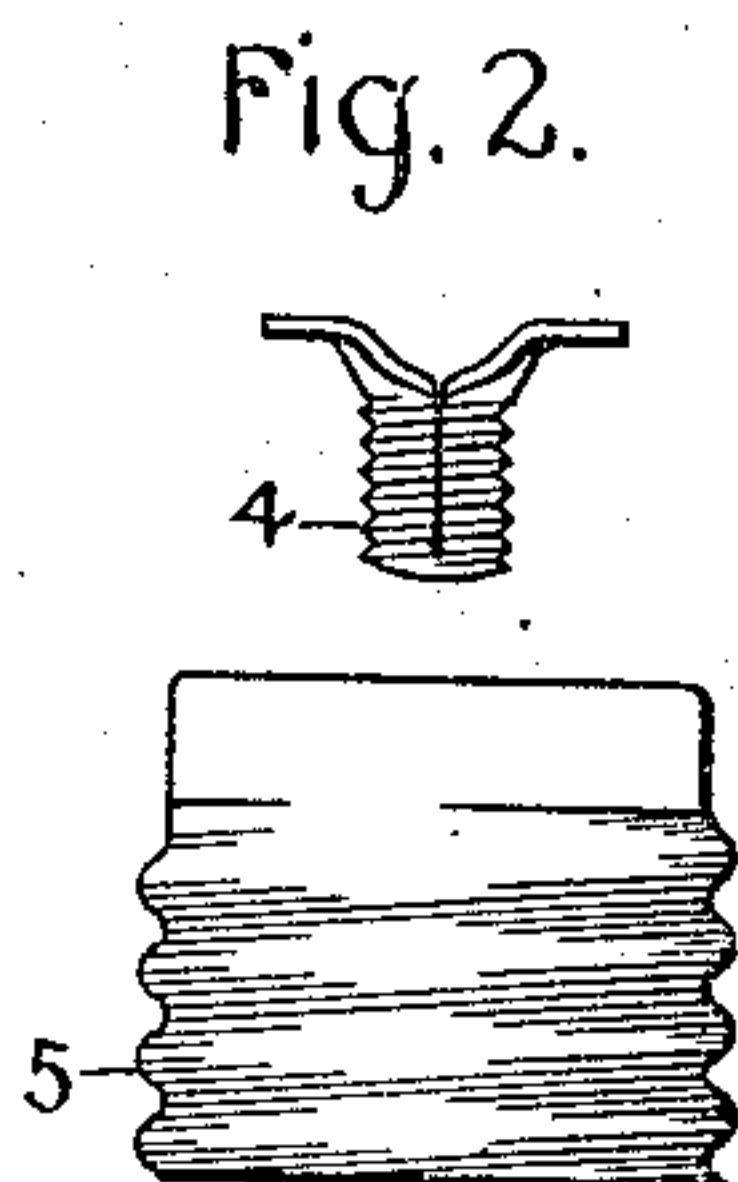
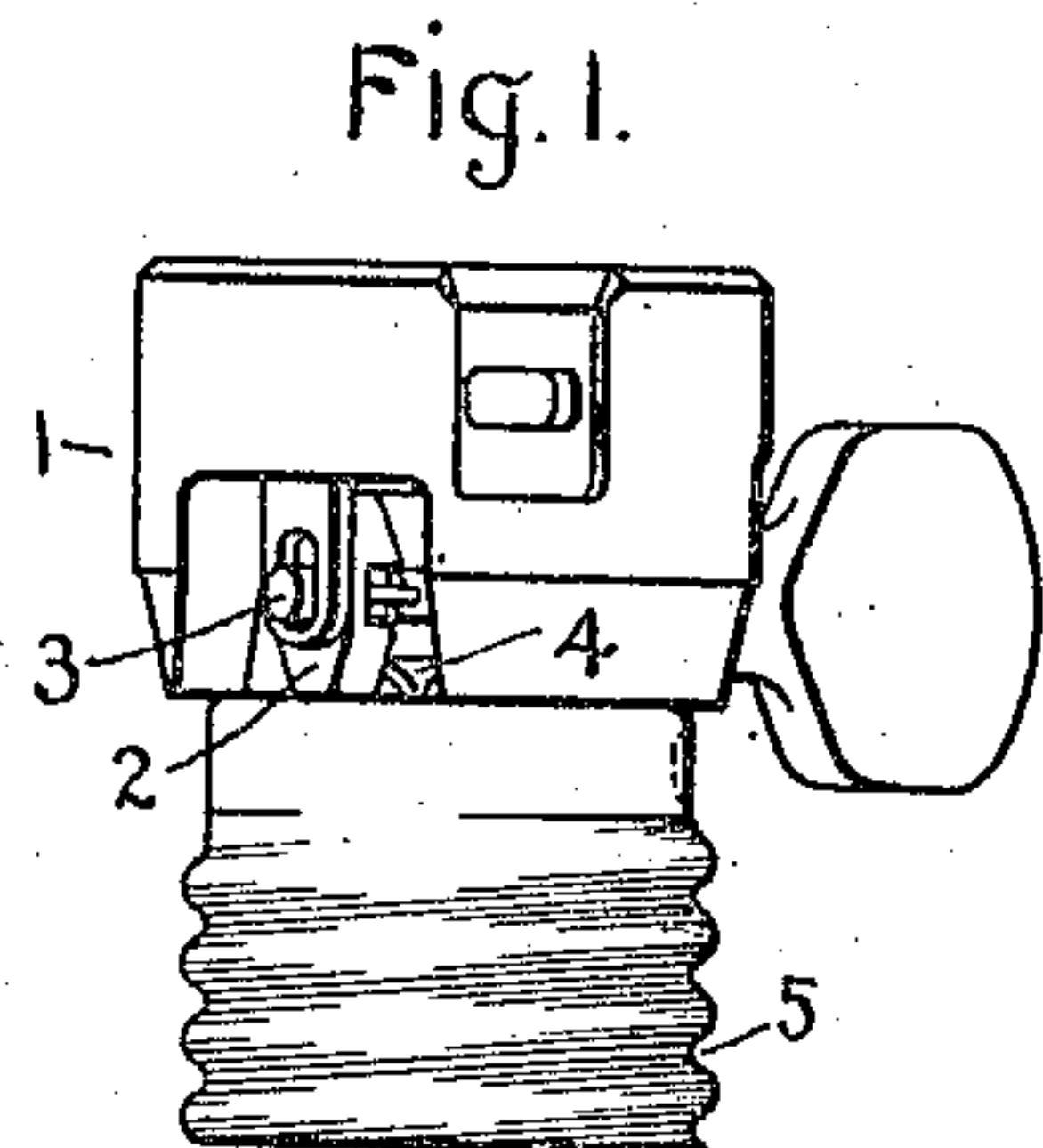


No. 828,582.

PATENTED AUG. 14, 1906.

A. SWAN.
ADAPTER.

APPLICATION FILED FEB. 6, 1905.



WITNESSES.
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UNITED STATES PATENT OFFICE.

ALFRED SWAN, OF NEW YORK, N. Y., ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

ADAPTER.

No. 828,582.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed February 6, 1905. Serial No. 244,272.

To all whom it may concern:

Be it known that I, ALFRED SWAN, a subject of the King of Great Britain, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Adapters, of which the following is a specification.

This invention relates to an adapter for incandescent lamps; and the object of the invention is to provide an adapter which will permanently change an incandescent-lamp socket or receptacle from one of the well-known types to another.

In the development of the art of lighting by incandescent lamps a number of different types of sockets or receptacles and lamp-bases—as, for instance, the Edison, the Thomson-Houston, and the Westinghouse—have gone into extensive use, the various types differing somewhat in the shape and arrangement of the parts which cooperate to hold the lamp and connect it in circuit. It is frequently desired to use lamps of one type when the sockets or receptacles already installed are of a different type in order to use less expensive lamps, or that a supply of lamps of only one type need be carried, or for other reasons. This has been done heretofore by employing a device commonly termed an “adapter,” which can be readily attached to a receptacle of one type and is arranged to receive a lamp-base of a different type, the metallic parts of the adapter being constructed to connect the respective terminals of the receptacle and the lamp-base. In using these adapters it frequently happens that in withdrawing a lamp from a receptacle to replace it with a new one the adapter is withdrawn with it. This occurs so often as to be quite an annoyance, and considerable time is consumed in removing the adapter from the lamp and reinserting it in the receptacle. Moreover, when a broken or used lamp is taken out of a receptacle and the adapter is taken out with it the adapter is frequently thrown away with the lamp and before a new lamp can be put in the receptacle another adapter must be obtained and put in place. To avoid the inconveniences and expenses resulting from this, I have provided an adapter having a locking device which when the adapter is inserted in a receptacle prevents its withdrawal therefrom. By means of this adapter a socket or recep-

tacle of one type is permanently changed over to one of a different type, and the expense due to the adapter sticking to the lamp-base and being taken out of the receptacle with the lamp and frequently being thrown away with the lamp is done away with entirely.

In the accompanying drawings I have illustrated various embodiments of my invention. In these drawings I have shown the adapter as constructed when it is to be inserted in a Thomson-Houston receptacle and is to receive an Edison type of lamp; but I wish it understood that the novel features of my invention are applicable to adapters arranged to fit in other types of receptacles and to receive other types of lamps.

In the drawings, Figure 1 shows a Thomson-Houston socket with the inclosing shell removed and the adapter attached thereto. Figs. 2, 3, and 4 are an elevation and a vertical and a horizontal section, respectively, of the adapter, the section-line for Fig. 4 being the line 4 4 of Fig. 3. Figs. 5 and 6 are a vertical and a horizontal section, respectively, of a slightly-modified form of adapter, the section-line of Fig. 6 being the line 6 6 of Fig. 5; and Figs. 7 and 8 show two further modifications.

Referring to the drawings, 1 indicates a Thomson-Houston key-socket of standard construction, having a block 2, carried by the shaft 3 of the key, arranged to cross-connect a contact electrically connected to one of the line-wires with a ring which forms one terminal of the socket. The other terminal is a metallic screw-threaded projection 4, upon which a Thomson-Houston lamp is screwed to hold it in the socket. The adapter consists of a threaded sheet-metal shell 5, having an in-turned flange 6 at one end. Secured in any suitable manner in the bottom of this shell bearing against the flange 6 are two disks 7 and 8, of porcelain, fiber, or other insulating material. In each of these disks is a central opening, one or both of which are threaded to receive the center contact 4 of the socket, whereby the adapter is secured in place. The disk 8 is cut away, as shown in Fig. 3, so that when the two disks are in position in the bottom of the shell a cavity is formed between them. A short pin 9 is supported within this cavity, as shown, and serves as the pivot for a locking member 10. One edge of this locking member is of spiral shape and pro-

vided with sharp teeth, as shown in Fig. 4. Behind the locking member is a spring 11, which serves to constantly urge the member forward, so that its toothed edge extends into the opening in the disk 8. The adapter is applied to a socket or receptacle having terminals of the Thomson-Houston type by screwing it down upon the center contact 4 until the inturned flange 6 engages the ring-contact of the socket. This connects the shell 5 with one terminal of the socket, and the center contact 4 extends through the central openings of disks 7 and 8 to form the other terminal. A standard Edison lamp can then be inserted in the adapter by screwing it down into the shell 5 until the center contact of the lamp engages the center contact 4 of the socket.

In Figs. 5 and 6 I have shown a slight modification of this type of adapter. In practice it is found that the center contact 4 of Thomson-Houston sockets are not all of the same length, and sometimes it might happen that the center contact 4 would not extend all the way through the central openings in disks 7 and 8, and therefore would not be engaged by the center contact of an Edison lamp. In order to insure a good contact, I have provided a metallic sleeve 12, internally threaded and secured in a somewhat larger central opening in the insulating-disk 8. As shown in Fig. 5, this sleeve extends a little beyond the disk 8, and therefore it will always be engaged by the center contact of an Edison lamp.

In both of these forms of my invention it will be seen that the adapter can be readily screwed onto the center contact 4 of the socket, as the locking member 10 will be pushed back against the tension of spring 11. If, however, it is attempted to remove the adapter from the socket, the teeth of the locking member will catch on the center contact 4 and the locking member will become wedged between the contact and the pivot 9, thus preventing further turning of the adapter. The adapter is thus permanently held in place on the center contact of the socket, changing the Thomson-Houston socket into a socket of the Edison type.

Fig. 7 shows a type of adapter modified somewhat from that of Figs. 3 and 5 and possessing the advantage that no pivot 9 is necessary. In this form of my invention the locking member 13 slides bodily back and forth in the cavity formed by the disks 7 and 8, it being pressed forward by a small U-shaped spring 14. As in the former cases, the locking member 13 will permit the adapter to be screwed onto the center contact 4, but will become wedged between the terminal 4 and the side of the cavity when it is attempted to withdraw the adapter.

Fig. 8 shows a further modification not requiring a pivot. In this form a corner of the

cavity holds one end of the locking member 15 and acts as a pivot, a spring 17 serving to move the other end.

In all the forms of my invention which I have illustrated and described herein it will be seen that the adapter when once applied to a socket cannot be withdrawn, and there is therefore no danger of its sticking to a lamp-base and being thrown away when the lamp is taken out of the socket.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. An adapter for incandescent lamps having securing means for the base of an incandescent lamp, a screw-threaded portion arranged to cooperate with a complementary screw-threaded portion in a lamp-base receptacle, and a locking member on said adapter arranged to cooperate with the screw-threaded portion of the receptacle to prevent the withdrawal of the adapter from the receptacle.

2. An adapter for incandescent lamps having means to support an incandescent lamp and establish electrical connection with its terminals, a screw-threaded portion on said adapter arranged to cooperate with a complementary screw-threaded portion on a lamp-base receptacle for securing the adapter to the receptacle, and a locking device extending adjacent the screw-threaded member of the adapter and arranged to cooperate with the screw-threaded portion of the receptacle to prevent the withdrawal of the adapter from the receptacle.

3. An adapter for incandescent lamps having a screw-threaded terminal arranged to cooperate with a screw-threaded terminal on a receptacle to secure the adapter to the receptacle, a second terminal arranged to act as a support for an incandescent lamp and connecting with the second terminal in the receptacle, and a locking device extending adjacent the screw-threaded portion of the adapter and arranged to cooperate with the screw-threaded member of the receptacle to prevent withdrawal of the adapter from the receptacle.

4. An adapter for incandescent-lamp sockets having a metallic shell, a disk supported in the shell having an opening therein, a locking member located in the disk and adapted to extend into said opening, and a spring acting on the locking member.

5. An adapter for incandescent-lamp sockets having a screw-threaded metallic shell, a center contact insulated from the shell and provided with a threaded bore, a locking member adapted to extend into said bore, and a spring acting on said member.

6. An adapter for incandescent-lamp sockets comprising a screw-threaded metallic shell having an inturned flange at one end, a disk of insulating material having an opening therein supported in said shell against the flange thereof, a pivoted locking member lo-

cated in said disk and adapted to extend into the opening therein, and a spring acting on the member to turn it on its pivot.

5 7. An adapter for electric-lamp sockets having a screw-threaded shell adapted to receive the base of an electric lamp, a screw-threaded central sleeve adapted to screw onto a screw-threaded stem in an electric-light socket by turning the adapter to the right
10 and a spring-actuated locking-plate having teeth adapted to engage with the stem in the socket and prevent a reverse movement of the adapter, thereby permanently securing the adapter to the socket.

15 8. The combination with an incandescent-lamp socket provided with a central screw-threaded terminal, of an adapter provided with a cooperating screw-threaded terminal, a metallic screw-shell, and a device projecting
20 into the bore of the adapter-terminal mount-

ed to yield as the adapter is screwed into the socket and to lock on the screw-threaded terminal of the socket upon reverse movement of the adapter to prevent removal of the adapter.

25 9. An adapter provided with a central internally-screw-threaded terminal for engaging the central terminal of a T-H socket, a metallic screw-shell, a device projecting into the bore of the adapter-terminal mounted to
30 yield as the adapter is screwed into the socket and to lock on the socket-terminal and prevent removal of the adapter.

In witness whereof I have hereunto set my hand this 2d day of February, 1905.

ALFRED SWAN.

Witnesses:

CHAS. H. HEELEY,
S. W. WHITEHEAD.