

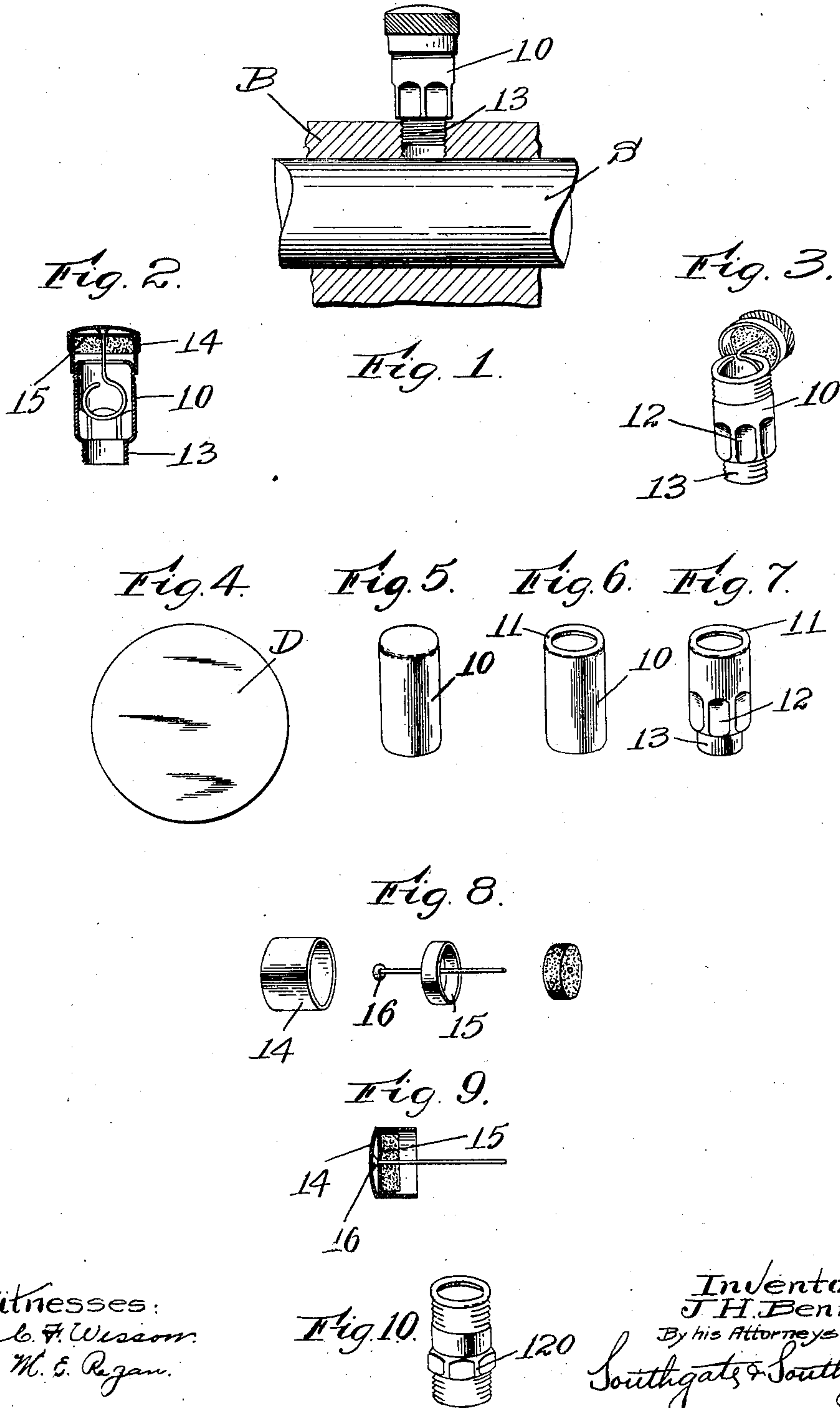
No. 734,036.

PATENTED JULY 21, 1903.

J. H. BENNETT.  
OILER.

APPLICATION FILED NOV. 15, 1902.

NO MODEL.



Witnesses:  
C. F. Wiscom.  
M. E. Regan.

Inventor:  
J. H. Bennett.  
By his Attorneys.  
Southgate & Southgate

# UNITED STATES PATENT OFFICE.

JOHN H. BENNETT, OF WORCESTER, MASSACHUSETTS.

## OILER.

SPECIFICATION forming part of Letters Patent No. 734,036, dated July 21, 1903.

Application filed November 15, 1902. Serial No. 131,538. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN H. BENNETT, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Oiler, of which the following is a specification.

This invention relates to an oil-hole attachment for use on machinery, engines, automobiles, and in substantially all locations where a simple and efficient oil-hole cover is desired.

The especial object of this invention is to provide a strong simple sheet-metal construction in which the parts are so connected that the cap or cover cannot be carried away or be lost and which will leave a substantially unobstructed passage for oil when the cap or cover is laid to one side.

To these ends this invention consists of the sheet-metal plug or body and of the combination of its cap therewith, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a sectional view of a shaft and of sufficient parts of its box or bearing to illustrate the application of my invention thereto. Fig. 2 is a sectional view of an oil-hole attachment constructed according to my invention. Fig. 3 is a perspective view showing the cover unscrewed and laid over to one side. Fig. 4 is a plan view of the blank from which the sheet-metal body may be formed. Fig. 5 is a perspective view showing the blank drawn up to the form of a seamless ferrule. Fig. 6 is a perspective view showing the end of the ferrule stamped out to leave an inwardly-projecting holding-flange. Fig. 7 is a perspective view of the body portion with the wrench-section shaped thereon. Fig. 8 is a perspective view of the parts which are comprised in the cap or cover. Fig. 9 is a sectional view showing these parts fitted together, and Fig. 10 is a perspective view illustrating a slightly modified form of plug or body portion.

Oil-hole covers which are now employed for protecting the oil-holes of machinery are usually of either one of two constructions. The simpler and commoner form of oil-hole cover usually consists of a cap or cover which is threaded or set into place and which is removed whenever the bearing is to be oiled.

The use of the ordinary removable oil-hole cover is objectionable, as these covers are frequently lost or carried away, so that the oil-holes are left entirely unprotected. To overcome this objection on certain classes of machinery—such, for example, as bicycles, automobiles, &c.—the oil-holes are sometimes protected by plugs or balls, which are held in position by springs. In order to oil a bearing protected by an oil-hole attachment of this kind, the end of the oil-can nozzle is employed for forcing back the spring-pressed plug or ball. This class of oil-hole covers has been found to be well adapted for use on bicycles or vehicles; but the use of this class of oil-hole covers on machinery is not desirable, because when the nozzle of an oil-can is turned down to force back the spring-pressed plug or ball the oil is liable to run out of the can before the oil-hole has been opened.

In an oil attachment constructed according to my invention I provide a cap or cover which is secured in place so that it cannot be carried away or be lost, but which can be laid to one side to leave an unobstructed opening for the entrance of oil.

My oil-hole attachment has been especially designed to be manufactured from sheet metal. As herein illustrated it comprises a plug or body portion. This plug or body portion is preferably formed by stamping up a blank or piece of sheet metal into the form of a ferrule, the closed end of which is punched out or the open end of which may be turned in to leave an inwardly-projecting holding-flange, after which the body portion is formed, by means of suitable dies, so that it will have an angular section, usually of substantially hexagonal form, for receiving a wrench.

The cap or cover preferably comprises an outside cap or cover and an inside cap fitting within the same and a holding-wire having a head secured in place between the inside cap or cover and the outside cap or cover.

Referring to the drawings for a detail description of an oil-hole attachment constructed according to my invention, as shown most clearly in Fig. 2, my attachment comprises a seamless drawn sheet-metal plug or body portion 10, having an inwardly-projecting holding-flange 11. At its lower end the plug or



body portion 10 is provided with a wrench-section 12 and a threaded nipple 13.

In Fig. 1, S designates a shaft having a bearing or box B, to which my oil-hole attachment is applied.

The successive steps which may be employed in making the sheet-metal plug or body portion of my oil-hole attachment are most clearly illustrated in Figs. 4 to 7. As shown in Fig. 4, D designates a blank or disk of sheet metal, which is first stamped up to form a closed-ended ferrule, as shown in Fig. 5. The end of the ferrule is then stamped or cut out to leave an overhanging holding-flange 11, as shown in Fig. 6. Suitable dies are also employed for shaping the body portion into a hexagonal wrench-section 12 with a nipple of smaller diameter. If desired, the nipple and wrench-section may be formed at the closed end of the ferrule instead of at the open end of the ferrule.

The parts employed in the cap or cover are illustrated in Fig. 8 and comprise an outside cap or cover 14, which receives an inside cap or lining 15. Extending through the cap or lining 15 is a wire or brad having a head 16. A washer of leather or other material may be strung on the brad and fitted into the cap 15, so that the parts can then be assembled, as shown in Fig. 9. The outside cap or cover 14 is then acted upon by suitable dies so that the lining will be located in the upper or large section of the cap, while a contracted neck or section of smaller diameter will be formed to hold the parts in place, as shown in Fig. 2. A loop is then formed at the end of the holding-wire and the parts put together, as illustrated in Figs. 2 and 3, so that the cap or cover cannot be carried away or be lost, but may be laid to one side, as illustrated in Fig. 3, so that when the parts are in this position the loop of the holding-wire will be turned sidewise, so as to leave a substantially unobstructed passage to the oil-hole.

In some cases instead of compressing or contracting the sides of the body portion 10 to form the wrench-section thereof the body portion 10 may be expanded or spun out to form an enlarged ring or section, which may be compressed by suitable dies to form an enlarged wrench-section 120, as shown in Fig. 10.

I am aware that other changes may be made in practicing my invention by those who are skilled in the art without departing from the

scope thereof as expressed in the claims. I do not wish, therefore, to be limited to the constructions I have herein shown and described; but

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

1. As an article of manufacture, an oil-hole attachment comprising a sheet-metal body portion with an integral section thereof shaped into angular outline to form a wrench-receiving section and having a flange, a cap or cover, a holding-wire extending from the cap or cover and having an enlargement at its lower end, the travel of said enlargement being within the sheet-metal body portion, and being limited by the flange thereof.

2. As an article of manufacture, an oil-hole cover comprising an outside cap having its largest diameter at its upper end, and with a contracted throat or section below the same, an inside cap fitting into the larger section of the outside cap, a wire having a head at its upper end held in place between said caps, and having a loop at its lower end for preventing the cover from being removed.

3. As an article of manufacture, an oil-hole cover comprising an outside cap having its largest diameter at its upper end, with a contracted throat or section of smaller diameter below the same, an inside cap fitting into the larger section of the outside cap, a packing of soft material in the inside cap, and a holding-wire having a head held in place between said caps.

4. As an article of manufacture, an oil-hole attachment comprising a threaded, seamless drawn, sheet-metal body portion or plug having an inwardly-projecting holding-flange at its upper end, with a wrench-section below the same, and a cap comprising an outside cap having its section of largest diameter at its upper end, an inside cap fitting into the section of largest diameter, and a holding-wire with a head at its upper end held in place between the inside and outside caps, and a loop at its lower end fitting inside the holding-flange to prevent the cover from being carried away.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN H. BENNETT.

Witnesses:

PHILIP W. SOUTHGATE,  
J. ELMER HALL.