Feb. 26, 1935. R. D. McINTOSH 1,992,901

COCK FOR GAS STOVES

Filed Oct. 24, 1932

Fig. 1.

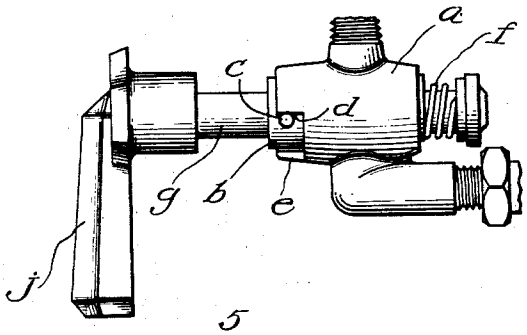


Fig. 2.

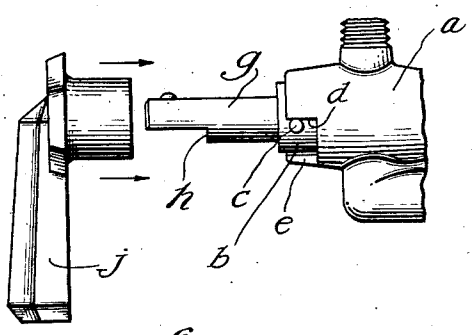


Fig. 3.

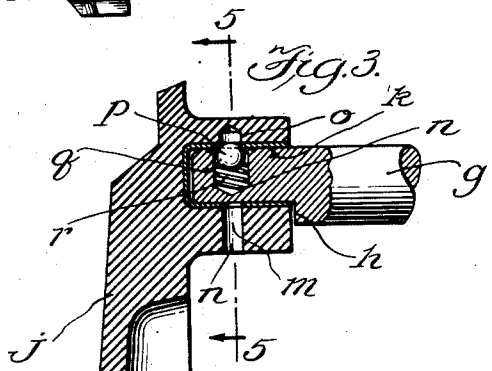


Fig. 4.

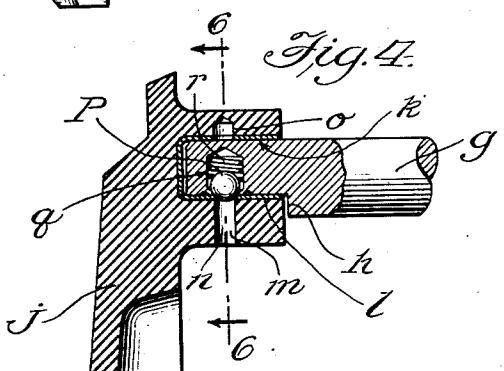


Fig. 5.

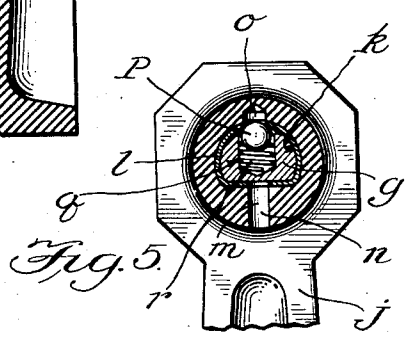


Fig. 6.

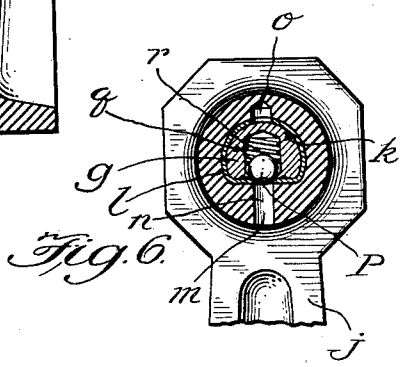


Fig. 7.

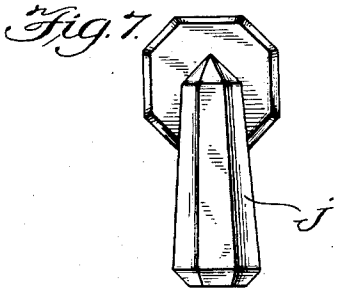
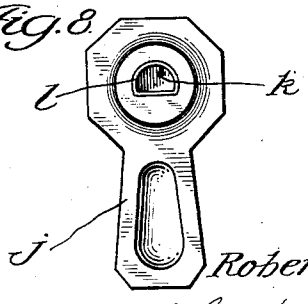


Fig. 8.



Inventor
Robert D. McIntosh.

By John Howard McElroy
his Attys.

Patented Feb. 26, 1935

1,992,901

UNITED STATES PATENT OFFICE

1,992,901

COCK FOR GAS STOVES

Robert D. McIntosh, River Forest, Ill., assignor to The Imperial Brass Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application October 24, 1932, Serial No. 639,225

1 Claim. (Cl. 287—53)

My invention is concerned with cocks for gas stoves, and is designed to obviate a danger that exists where cocks of the ordinary construction are employed.

As is well known, the cocks of the ordinary gas stove are located at a height from the floor where they can be reached and turned by children not old enough to appreciate the danger of leaving them turned on so that gas can escape into the kitchen, and a child playing about the kitchen sometimes turns them and leaves them turned on, with disastrous results. To obviate this difficulty, I have produced a cock in which the handle can be instantly removed when not in use and instantly replaced without any thought or care in its correct position when it is desired to use the stove, thus, with little attention, obviating the possibility of children doing any damage, as the handles of the cocks will be removed after the stove is used.

To illustrate my invention, I annex hereto a sheet of drawings, in which the same reference characters are used to designate identical parts in all the figures, of which,—

Fig. 1 is a side elevation of a cock embodying my invention;

Fig. 2 is a similar view, but with the handle withdrawn;

Fig. 3 is a section through the handle and stem of the cock, showing one form;

Fig. 4 is a similar view, showing another form;

Figs. 5 and 6 are sectional views on the lines 5—5 and 6—6 of Figs. 3 and 4, respectively;

Fig. 7 is a front elevation of the removable handle; and

Fig. 8 is a rear elevation of the same.

In carrying out my invention, I may employ any desired form of valve casing *a*, in which turns the valve body *b*, its movements preferably being limited by the pin *c* co-operating with the shoulders *d* and *e*. A spring *f* holds the valve tightly in place.

The valve stem *g* has a portion thereof cut off forming the shoulder *h*, and leaving this portion of the stem in cross section, as seen in Figs. 5 and 6. The handle *j*, which is preferably of hard rubber, may have any desired design, but has in the upper end thereof the recess *k* to receive the end of the stem *g* of the corresponding cross section, and this recess *k* is preferably provided with the brass lining *l*, of a cup shape, which fits snugly in the recess and receives the end of the stem with a loose fit. As the bakelite or hard rubber shrinks in molding, the use of the lining is necessary to get an accurate fit. A hole *m* is drilled through the handle and through the lining sleeve, and the drilling of the holes furnishes two apertures *n* and *o* in the sleeve, which form seats to co-operate with the steel ball *p* which is mounted in the recess *q* formed in the valve stem and held in place by the edges of the recess being swaged over to hold the ball in place after it has been inserted on top of the helically-coiled expanding spring *r* placed in the recess back of the ball.

In Fig. 3, I have shown the ball as projecting from the rounded portion of the stem, while in Fig. 4, I have shown an equivalent structure where it projects from the flat portion.

It will be obvious that, with this construction, the handle can be quickly shoved in place and held by the engagement of the ball with the recess, and likewise can be quickly removed with a minimum of effort.

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

In a cock for gas stoves, the combination with a stem having its outer end non-circular in cross section and having a transverse hole bored in said outer end, of a hard metal ball in said hole, a helically-coiled expanding spring in the hole tending to force the ball out of the hole but prevented by the edges of the hole being swaged inwardly to retain the ball, and a removable handle having a recess to accommodate the end of the stem and of the same cross section, said recess having a thin lining of sheet metal molded in place as the handle is cast, and said handle having a transverse hole drilled through the lining of lesser diameter than the ball so that it is seated in an aperture in the lining formed by the drilling of the hole, the cross section of the recess being such that when the handle is shoved on the ball must register with the aperture.

ROBERT D. McINTOSH.