A. M. BARNETT.

DOOR SPRING.

APPLICATION FILED APR. 13, 1908.

912,933. Patented Feb. 16, 1909.

Fig. 1.

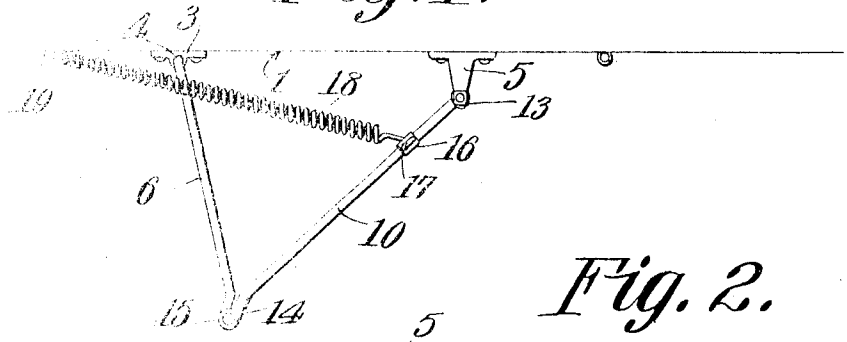


Fig. 2.

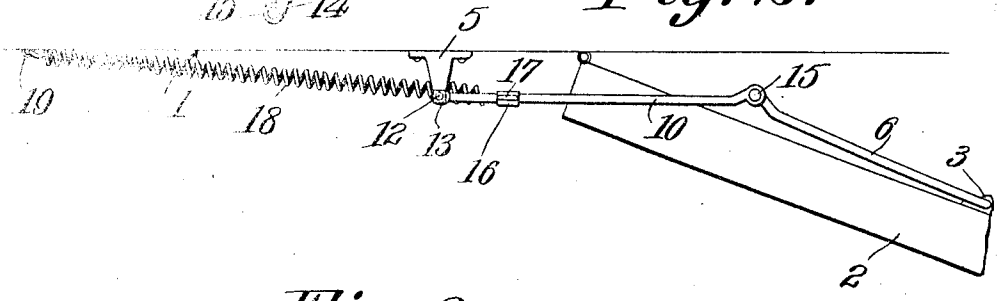
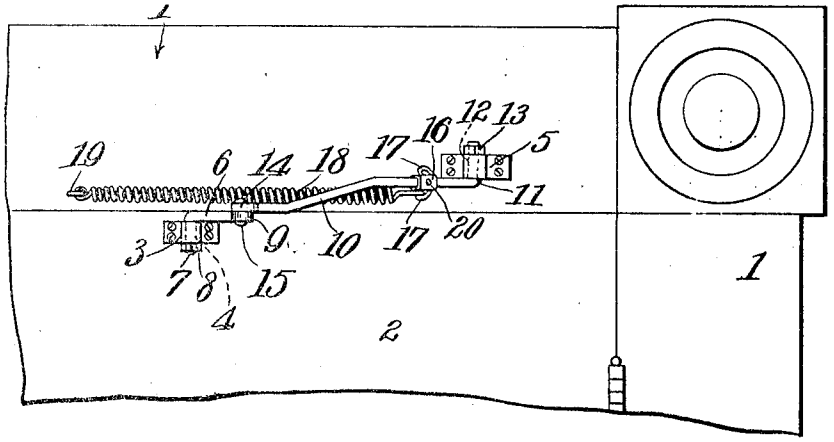


Fig. 3.



Witnesses

E. J. Stewart

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UNITED STATES PATENT OFFICE.

AMERICUS M. BARNETT, OF CHICKASHA, OKLAHOMA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-FOURTH TO JOHN W. JONES AND ONE-FOURTH TO JOHN H. LYNCH, BOTH OF CHICKASHA, OKLAHOMA.

DOOR-SPRING.

No. 912,933. Specification of Letters Patent. Patented Feb. 16, 1909.

Application filed April 18, 1908. Serial No. 426,792.

To all whom it may concern:

Be it known that I, AMERICUS M. BARNETT, a citizen of the United States, residing at Chickasha, Grady county, and State of Oklahoma, have invented a new and useful Door-Spring, of which the following is a specification.

This invention relates to improvements in door springs, such as are used for closing doors, gates and the like.

One object of the present invention is the construction of a device which will act to both close and hold the door or gate open. The latter feature will be found very desirable when applied to house doors where it is often necessary to have the door wide open, such as when cleaning rooms or moving articles from one room to another.

Another object of the device is to so position the spring that it will be under tension when the door is closed, thus guarding against the latter becoming ajar and avoiding drafts.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings and particularly pointed out in the appended claim, it being understood that various changes in the form, proportions, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings:—Figure 1 is a plan view showing the device applied to an ordinary door and casing. Fig. 2 illustrates the position of the parts with the door wide open. Fig. 3 is a rear elevation of a door and casing showing the device applied thereto.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

In the construction illustrated in Figs. 1, 2 and 3, the device is shown applied to a door hung on the right of a frame 1, although the device may be as readily applied to a door mounted opposite as will appear later.

Suitably secured adjacent the upper end of the door 2 and at approximately the middle thereof, is a bracket 3, preferably formed of metal or other suitable material and centrally provided with a seat 4, the function of which will presently appear. A similar bracket 5 is secured to the frame 1 directly above the plane of the door 2 and occupies a position approximately intermediate the bracket 3 and inner edge of the door 2. A lever 6, preferably formed of a single piece of metal or other suitable material, is provided at one end with a downwardly projecting arm 7, adapted to enter the seat 4 of the bracket 3, the arm being provided with screw threads and a nut 8 operating thereon secures the arm in the seat, as illustrated in Fig. 3. On the opposite end of the lever is formed an eye 9, the function of which will presently appear. A lever 10 of greater length than the lever 6 has an upwardly projecting arm 11 formed on one end thereof, which is adapted to be secured in a seat 12 formed in the bracket 5 on the frame preferably by a nut 13. The opposite end of the lever is provided with an eye 14. In assembling the parts thus far described, the eyes 9 and 14 formed on the ends of the levers 6 and 10 are brought to register and a suitable rivet 15 or the like is inserted and loosely secured therein.

It is obvious with this construction that the levers are pivotally mounted on the door and frame and connected to each other. Mounted on the lever 10 adjacent its point of connection with the frame 2 is a collar 16, provided on either side with attaching eyes 17 to either of which is secured one end of a helical spring 18 the opposite end of said spring being secured to an eye bolt 19 anchored in the frame 1. In the construction illustrated in the several figures of the drawings, it is designed that the normal length of the spring 18 shall be slightly less than the distance between the eye 17 and eye bolt 19, in order that when the door is closed, as shown in Figs. 1 and 3, the tension of the spring 18 will be sufficient to keep the door tight in the frame and at no time will it be ajar.

In the use of the device, when the door is opened at right angles to the frame, it will close automatically if allowed to do so, for at this point the lever will not have passed the central line of the spring 18. When, however, the door is thrown full open so as to lie in a plane parallel to the wall or frame, the lever 10 will have passed the central line with the spring 18 and the latter hold the

door in open position, as clearly shown in Fig. 2. It is to be further observed that the collar 16 is held in place on the lever 10 by means of a set screw 20. With this construction the collar can be adjusted on the lever and the spring 18 kept at proper tension.

What is claimed is:—

The combination with a door and door frame, of supporting brackets secured to the door and door frame, respectively, and provided with sockets forming bearings, converging operating levers having their outer ends pivotally united and their inner ends journaled in said sockets, a clip slidably mounted on one of said levers and provided with oppositely disposed attaching eyes, a coiled spring having one end thereof secured to one of the attaching eyes and its opposite end secured to the door frame, and means for locking the clip in adjusted position.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

AMERICUS M. BARNETT.

Witnesses:
W. H. MINTER,
JONAS COOK.