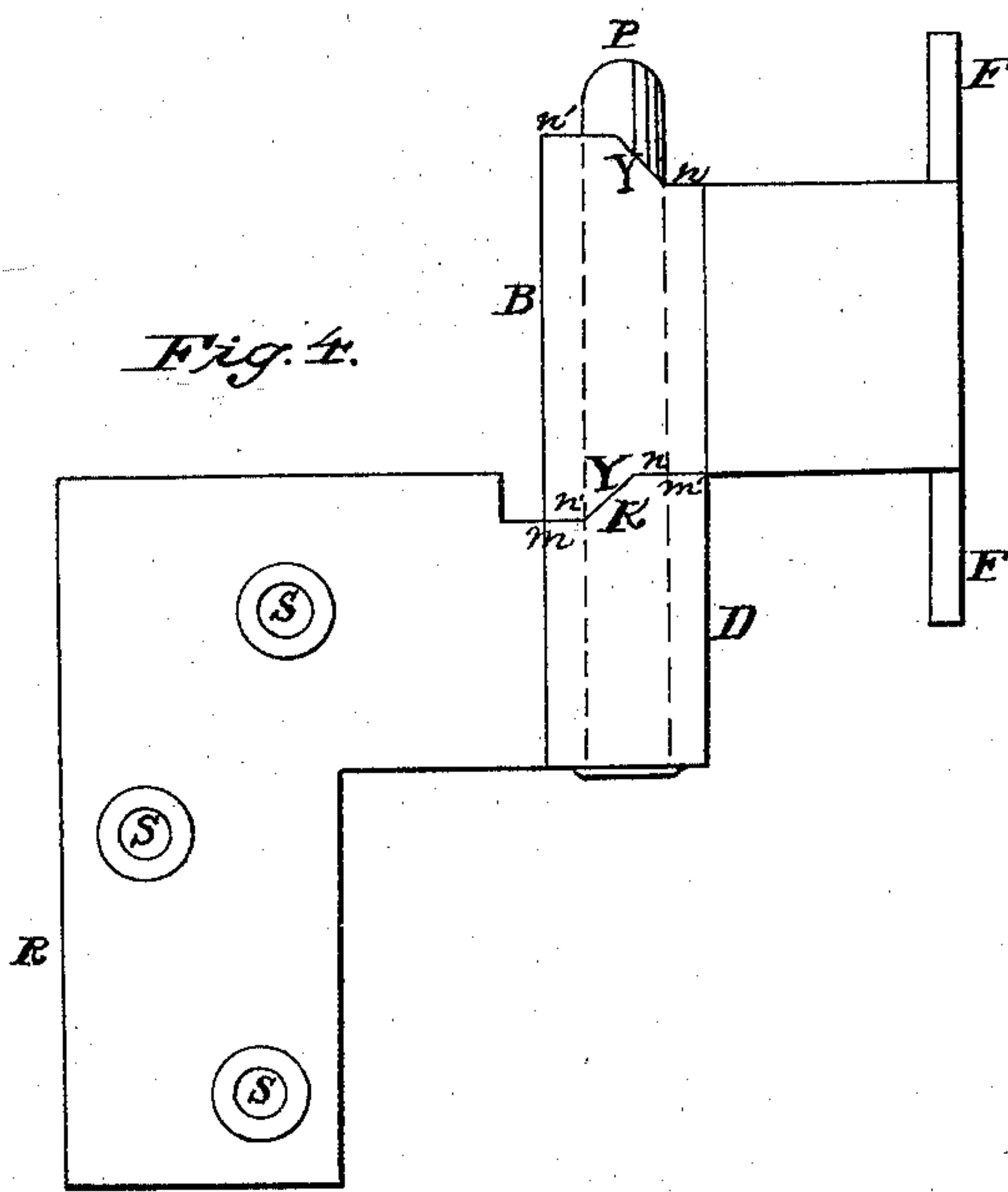
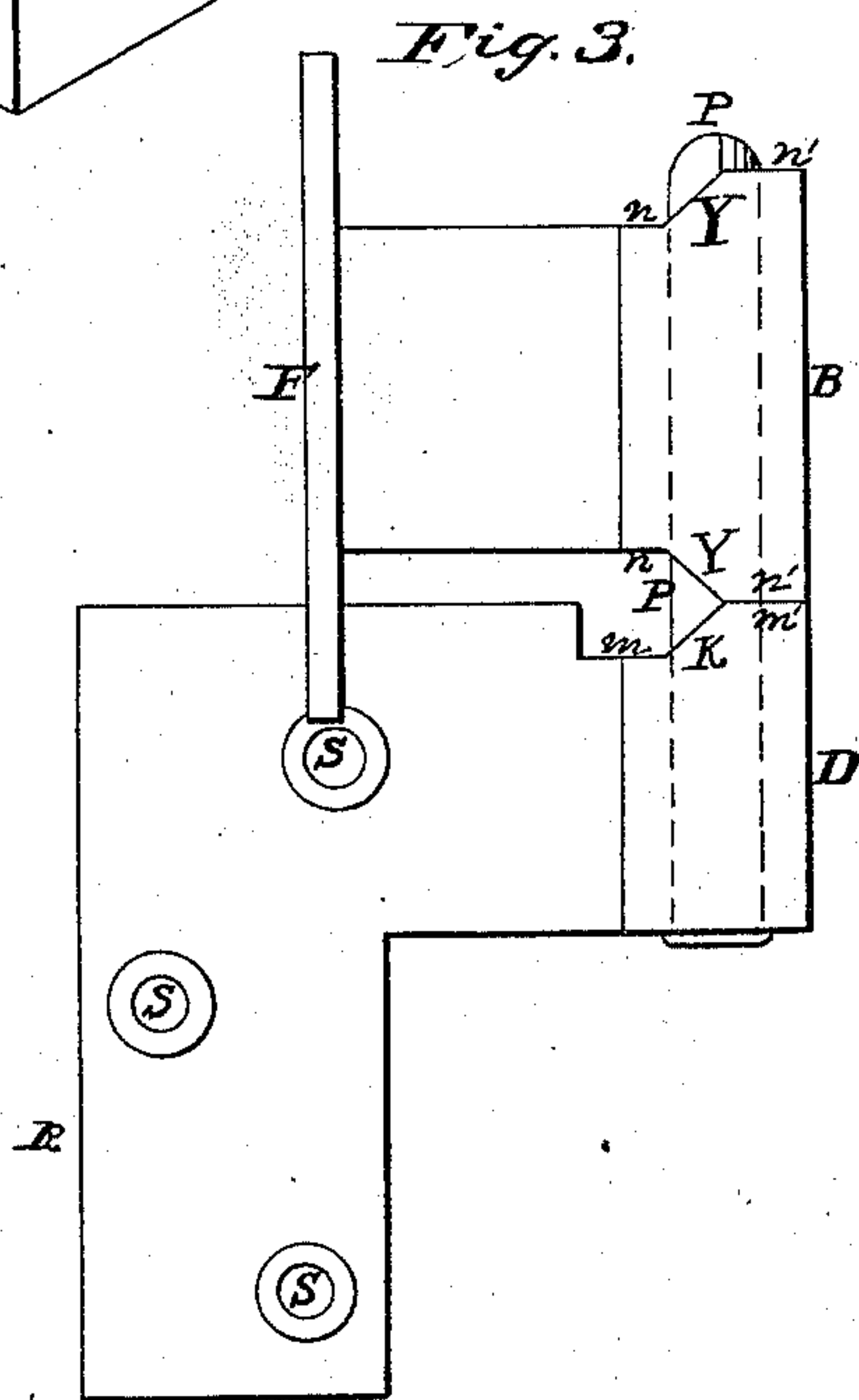
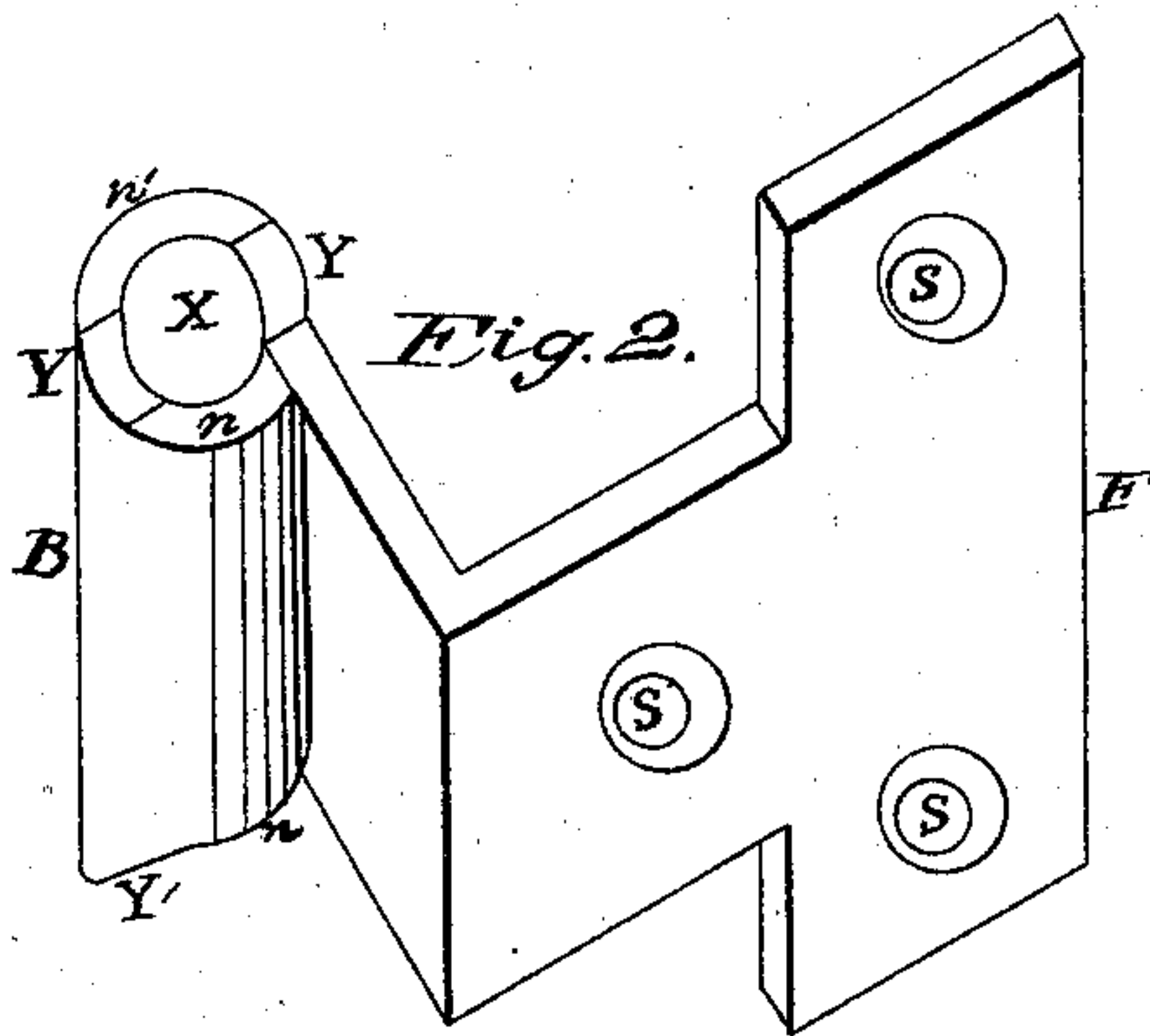
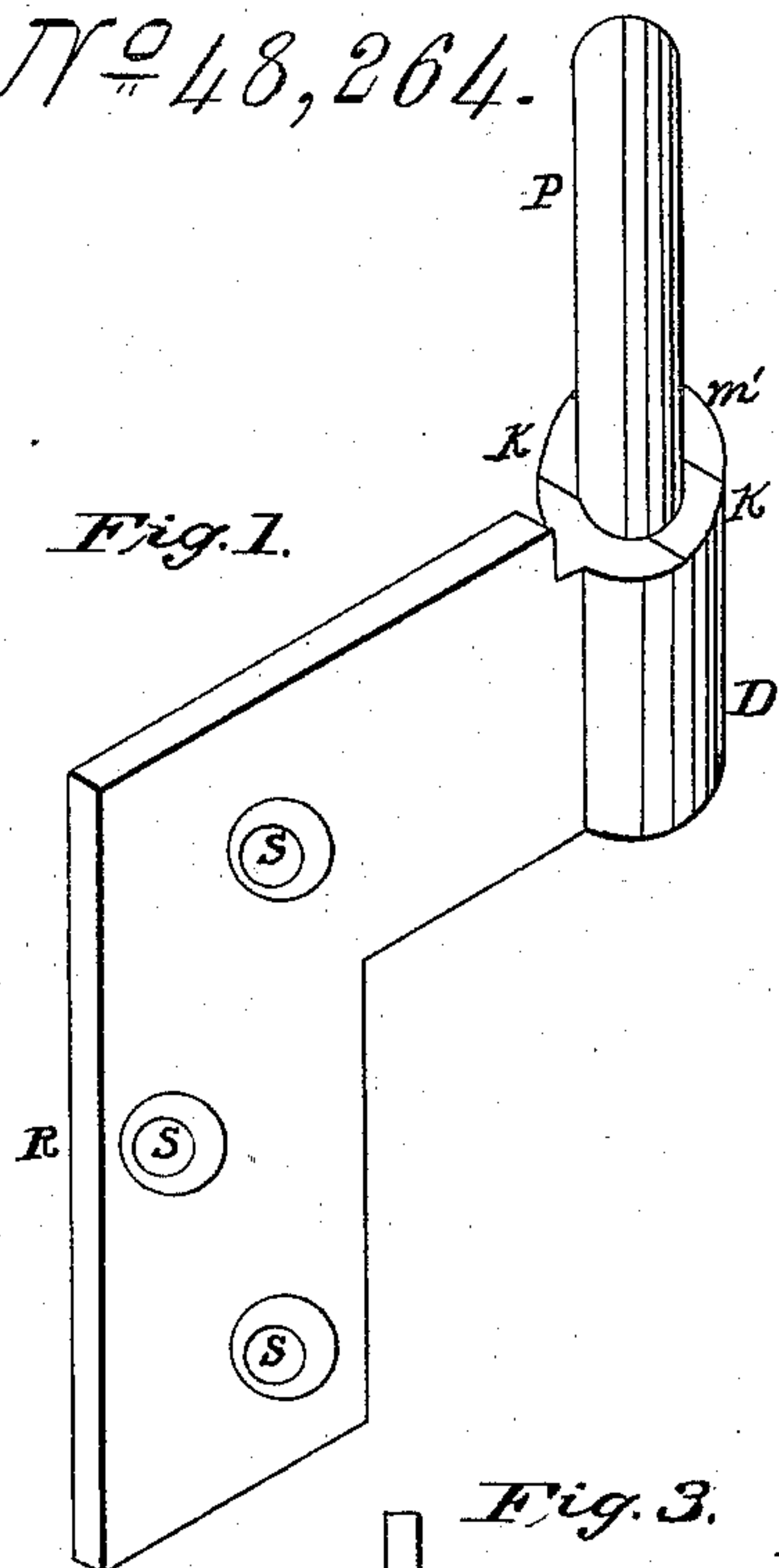


S. Drum,
Lock Hinge.

N^o 48,264.

Patented June 20, 1865.



Witnesses:

James J. Johnston.
Alexander Hayz.

Inventor:

Simon Drum.

UNITED STATES PATENT OFFICE.

SIMON DRUM, OF ALLEGHENY CITY, PENNSYLVANIA.

IMPROVEMENT IN SHUTTER-HINGES.

Specification forming part of Letters Patent No. 48,264, dated June 20, 1865.

To all whom it may concern:

Be it known that I, SIMON DRUM, of the city and county of Allegheny, and State of Pennsylvania, have invented a new and useful Improvement in Hinges for Window-Shutters; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in cutting away a portion of the metal which surrounds the pintle of the male part of the hinge for the purpose of forming an inclined plane on the right and left hand side of the pintle, and a horizontal plane on the back and front side of it; also, in cutting away a portion of each end of the knuckle of the female part of the hinge, so as to form inclined and horizontal planes which will in size and form correspond to the inclined and horizontal planes on each of the sides of the pintle, said planes being so arranged that the hinge will in swinging the shutter out from its place in the window-frame cause it to move on a line with the plane of the upper side of the window-sill until it has cleared the sill, and then to gradually sink until the faces of the planes come together, in which position the window-shutter will be held back against the wall of the building.

My invention also consists in making by the use of and by my peculiar arrangement of the planes herein described a hinge which will answer for either the right-hand or left-hand side of the shutter and window-frame.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawings, Figure 1 is a perspective view of the male part of the hinge. Fig. 2 is a perspective view of the female part of the hinge. Fig. 3 is a side view of the hinge, and represents the relative position of the two parts when the shutter is closed. Fig. 4 is a side view of the hinge, and represents the relative position of the two parts when the shutter is open and pressed back against the wall.

In the drawings, R represents the part of the hinge which is secured to the window-frame. F represents the part which is secured to the shutter. S represents screw-holes, which may be countersunk on one or both sides of the

hinge. D represents the metal which surrounds the pintle. P represents the pintle, which may be made movable or secured permanently in its place. K represents the inclined planes on the right and left hand sides of the pintle. *m* and *m'* represent the horizontal planes on the back and front sides of the pintle P. B represents the knuckle of the female part of the hinge. X represents the opening through the knuckle for the pintle. Y represents the inclined planes on each end of the knuckle, and *n* and *n'* represent horizontal planes.

It will be observed that by making the inclined and horizontal planes on each end of the knuckle B that the hinge will answer equally well for either the right or left hand side of the shutter; and it will also be observed that my improved hinge can be made of either cast or wrought iron, and that it can be made in the form of "strap" or "butt" hinge.

The operation of my improved hinge is as follows: In opening the shutter the plane *n'* moves on the plane *m'* until the shutter has swung clear of the window-sill, then one of the inclined planes Y travels down one of the inclined planes K until all the faces of the planes come together, as represented in Fig. 4 of the drawings, in which position the shutter is held back against the wall of the building by the action of the inclined planes and the weight of the shutters. In closing the shutter one of the inclined planes Y travels up on one of the inclined planes K until the horizontal plane *n'* comes on the plane *m'*, which will allow the under side or end of the shutter to swing to on a line with the plane of the upper side of the window-sill.

The advantages of my improvement are as follows: My improved self-fastening hinge will answer for either the right or left hand side of the shutter, which overcomes the necessity of keeping them in pairs—to wit, right and left handed hinges—which is always a source of inconvenience, annoyance, and trouble to the manufacturer, dealer, and consumer or user. The manufacturer in making right and left self-fastening hinges is required to watch with care over his stock of hinges, or otherwise he will have on hand more of one kind than desired—that is to say, more right than left or more left than right handed hinges. The dealer often finds

trouble in keeping his stock of self-fastening hinges uniform, for sometimes he sells more right-handed than left-handed hinges, and vice versa. The consumer finds that by the use of right and left handed self-fastening hinges he is subjected to expense and annoyance, for when a hinge is broke or part of one is lost he must purchase a pair, when, perhaps, he only wants part of a single hinge, and must note with care what side of the shutter the broken or lost part of the hinge belongs to. Now, by my improvement, all of this inconvenience, annoyance, and trouble is overcome simply by making both ends of the knuckle of the female part of the hinge to correspond to the planes around the pintle, as herein described.

Another advantage obtained by my improvement consists in avoiding the projections and recesses common to self-fastening hinges. In my hinge there are no projections to break off and no recesses to fill up with dust, rust, paint, snow, or ice. The objection to the use of hinges having projections and recesses are overcome by my improved mode of making self-fastening hinges, which is simply to cut away a portion of each end of the knuckle of

the female part of the hinge and a part of the metal which surrounds the pintle of the male part of the hinge, so as to form the planes herein described.

A further advantage gained by my improvement consists in the fact that my hinge is susceptible, on account of its simple form, of being made of wrought-iron, and can be made in the form common to strap-hinges.

Now, having thus described the nature, construction, operation, and advantages of my improvement, I wish it to be clearly understood that I do not claim, broadly, the use of inclined planes when used in connection with self-fastening hinges; but

What I do claim, and desire to secure by Letters Patent, is—

Making on each end of the knuckle of the female part of the hinge two or more planes corresponding to two or more planes around the pintle of the male part of the hinge, substantially as herein described, and for the purpose set forth.

SIMON DRUM.

Witnesses:

JAMES J. JOHNSTON,
ALEXANDER HAYS.