

(No Model.)

S. A. BROWN.
BICYCLE.

No. 446,181.

Patented Feb. 10, 1891.

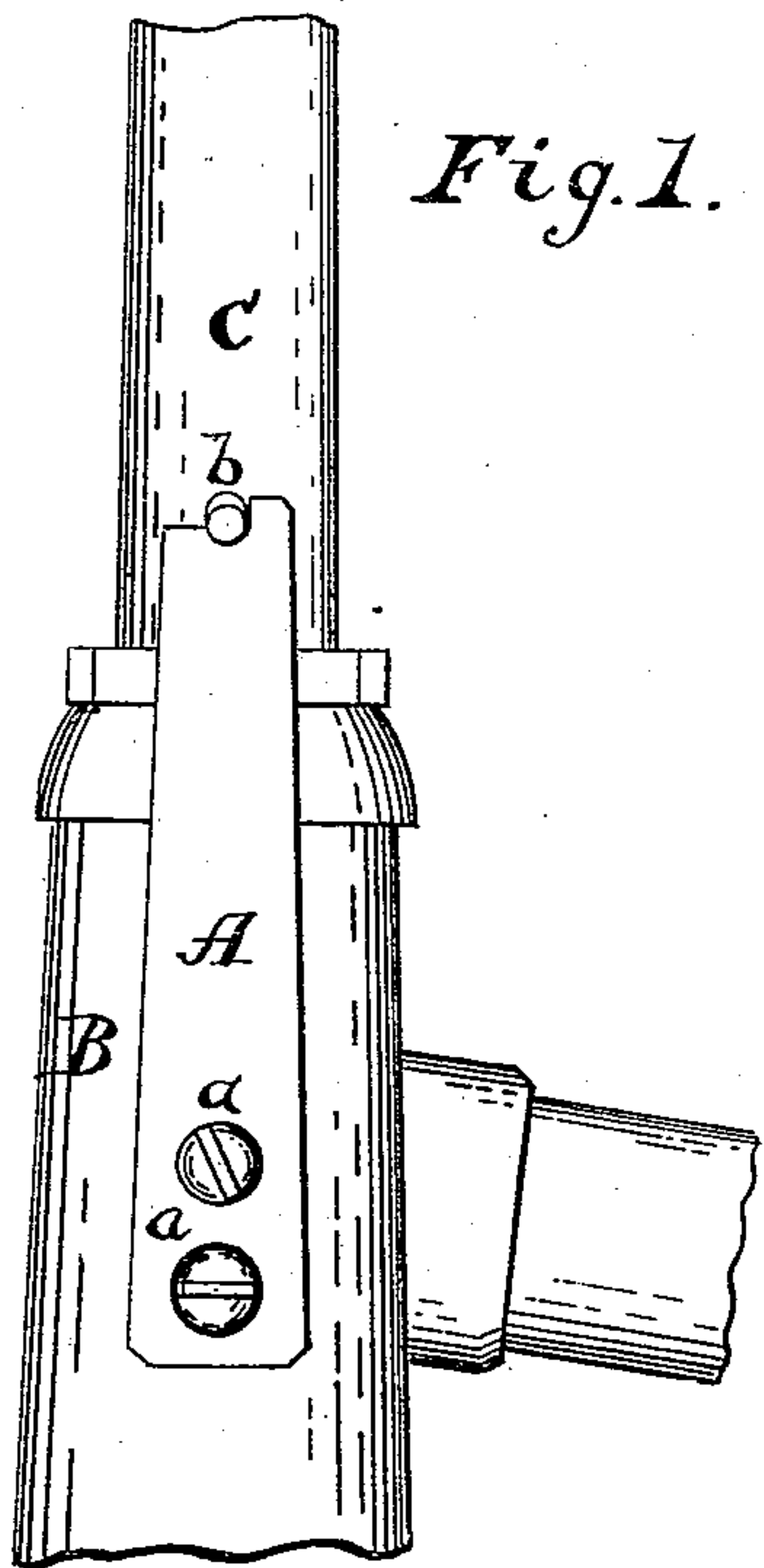


Fig. 2.

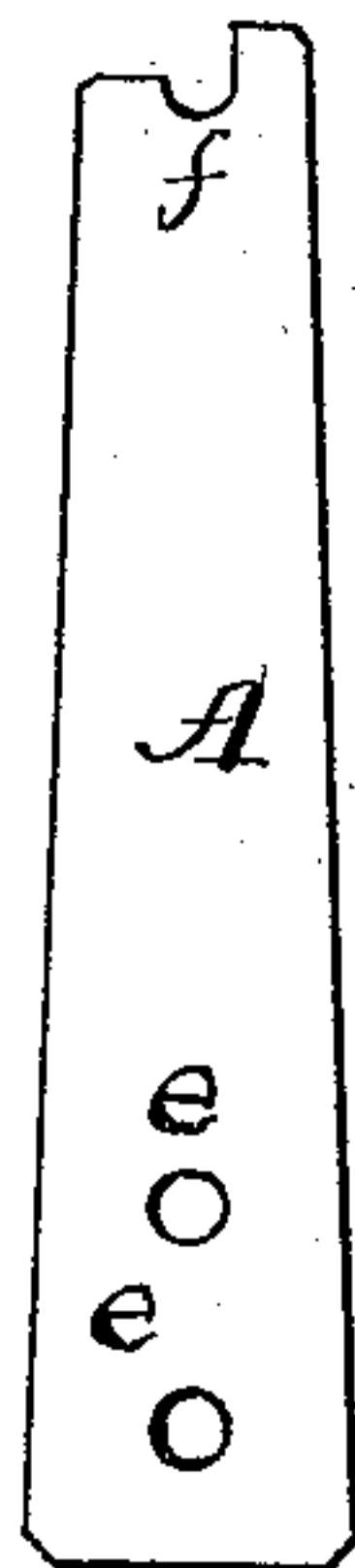


Fig. 3.

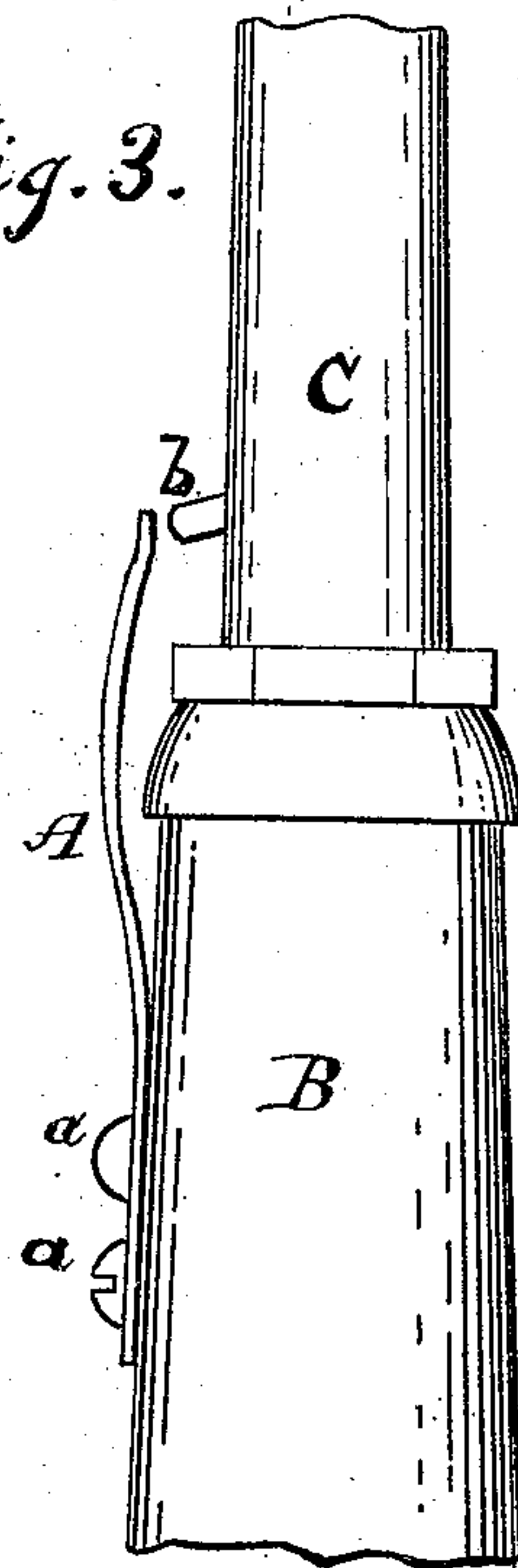


Fig. 4.

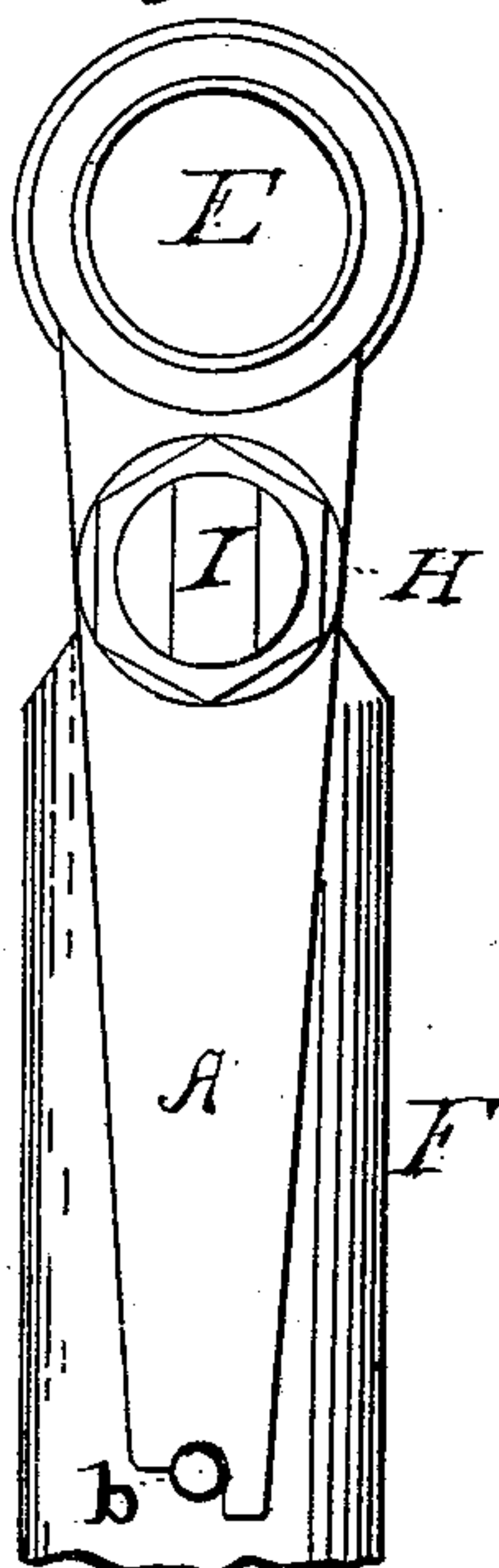


Fig. 5.

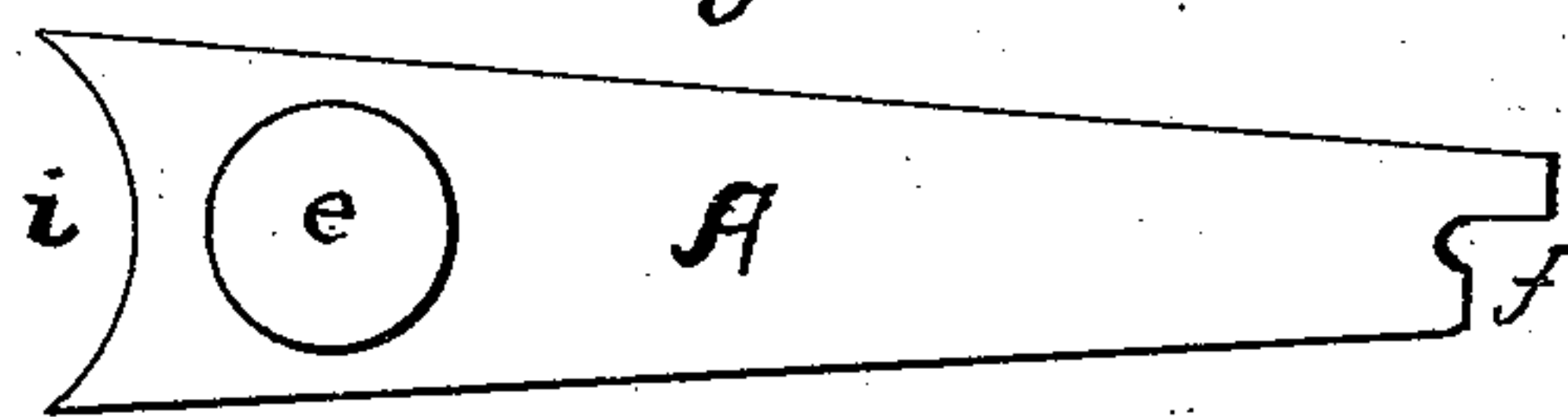
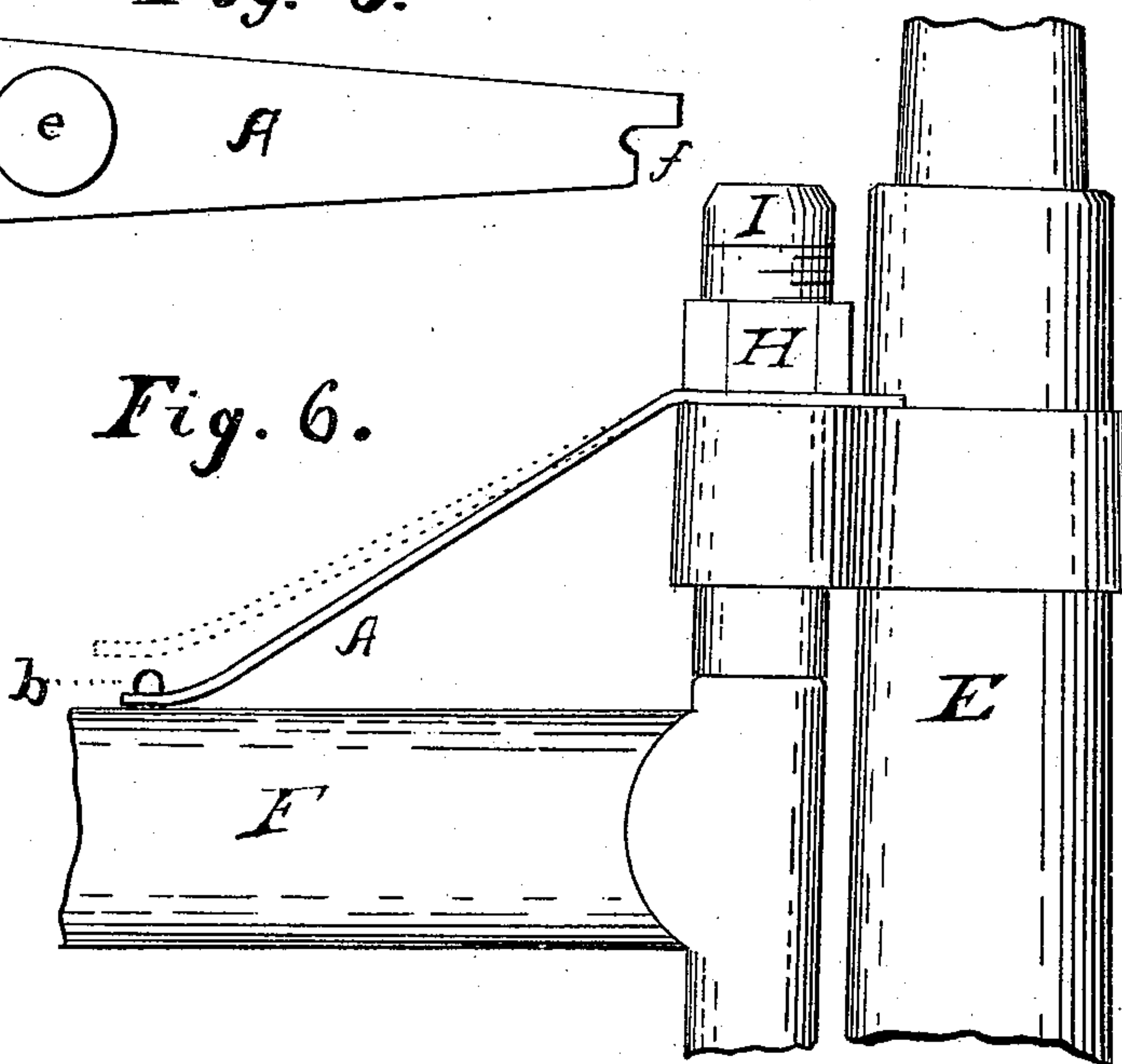


Fig. 6.



Witnesses.

John F. Springborn
Thomas Doone

Inventor.

Seth A. Brown

UNITED STATES PATENT OFFICE.

SETH A. BROWN, OF BUFFALO, NEW YORK.

BICYCLE.

SPECIFICATION forming part of Letters Patent No. 446,181, dated February 10, 1891.

Application filed November 29, 1890. Serial No. 372,994. (No model.)

To all whom it may concern:

Be it known that I, SETH A. BROWN, a citizen of the United States, and a resident of the city of Buffalo, in the county of Erie and State of New York, have invented an Improved Lock or Latch for the Steering-Gear of Bicycles, of which the following is a description, reference being had to the accompanying drawings.

My invention has for its object the locking of the steering-gear of bicycles, so as to prevent the front-wheel fork or frame from turning while the machine is at rest, and to provide a device that will automatically be held unlocked. It can be applied to bicycles without altering them.

It consists, mainly, of a spring plate or strip of elastic metal, provided with one or more holes at one end to receive fastening screws or bolts, whereby it is rigidly attached to one member of the steering joint or pivot, and provided at the other end with a suitable means for engaging or locking with a pin or catch attached to the other member of the joint. The locking device here adopted is a slot at one end of the strip engaging with a pin. The plate or strip is automatically kept out of contact with the pin or fastening.

The lock can be applied either to socket-bearing machines or to that style where the steering-pivot is placed outside and back of the front-wheel fork or frame. It can be slightly varied in form to suit different styles of machines.

In the accompanying drawings, Figures 1, 2, and 3 show the device applied to the former style; Figs. 4, 5, and 6 as applied to the latter style. Fig. 1 is a front view of the device placed on the side of the head or socket. Fig. 2 is an enlarged view of the spring-plate; Fig. 3, a side view showing the plate in its normal position.

The plate A is fastened to the head or socket B by the screws *a a*, passing through the holes *e e*. A pin *b* is placed in the stem C, inclining slightly downward, as shown in Fig. 3. This engages with the notch *f* at the end of the plate or strip. One side of this notch is slightly longer than the other. Normally the spring-strip A is out of contact with the pin *b*, as shown in Fig. 3, allowing the stem C to

move freely. To lock the device, the spring-strip is pressed inwardly close against the stem, which is swung around until the pin comes in contact with the notch. The long side of the notch prevents it from passing by without catching. The plate or strip A is now released, and the pressure forces the notch in close contact with the pin, thus forming a secure fastening. The plate can be secured to the stem and the pin be inserted in the socket without changing the principle of the device.

Fig. 4 shows a top view of the device applied to a back-pivoted machine. Fig. 5 is an enlarged view of the plate A; Fig. 6, a side view of the lock and a portion of the steering-gear.

The plate A has a hole *e* to receive the bolt I, and is secured to the front-wheel frame-work by the nut H. The end at *i* has a curved recess to fit the tube or stem E, thus preventing the plate from turning, and serving the purpose of a second bolt or screw. In this instance the end of the plate or strip is notched, as previously shown, but may be of any suitable form. A pin *b* is secured to the main-frame bar F. When the lock is not in use, the spring-strip A rests above the pin *b*, being bent downward, as shown. To lock the steering-gear, the strip is pressed downward. The front-wheel fork is swung around until the notch and pin are in line. The spring-plate is then released, and the pressure thereby exerted forces it against the pin, thus forming a lock or latch.

I do not confine myself to the notch-and-pin form of clutch; but other forms may be used, as may hereinafter be suggested.

The method of securing the spring strip or lock to back-pivoted machines by means of the pivot-bolt I and nut H, in combination with the curved recessed strip, is also applicable to other forms of lock.

The lock, as shown and described, is very cheap and simple in construction. It is operated very easily and quickly, is free from some objectionable features of other locks, and can be applied to almost every style of Safety bicycle in use.

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

1. The elastic or spring strip A, rigidly secured at one end to one member of a bicycle steering joint or swivel and having at the other end a slot *f*, engaging or locking with a pin *b*, placed in the other member of said joint or swivel.

2. A lock for the steering gear or joint of bicycles, consisting of a single elastic or spring strip A, rigidly fastened at one end to one member of the steering joint or swivel and having at the other end means for locking or engaging with the other member of said joint or swivel.

3. A lock for the steering-gear of bicycles, having a curved recess to fit the tube or stem E of the front-wheel fork of bicycles, and a

hole *e* to receive the bolt I, fastened thereon by the nut H, and provided at the other end with any suitable means for locking or engaging with the frame-bar F.

4. A lock for the steering-gear of bicycles, consisting of the elastic strip A, having at one end a curved recess *i* to fit the stem E, a hole *e* to receive the bolt I, fastened thereon by the nut H, and provided at the other end with a notch *f*, which engages with a pin *b* in the frame-bar F, for the purpose specified.

SETH A. BROWN.

Witnesses:

JOHN F. SPRINGBORN,
THOMAS BOONE.