

No. 684,419.

Patented Oct. 15, 1901.

S. E. FARMER.  
SAFETY HOOK.

(Application filed Mar. 11, 1901.)

(No Model.)

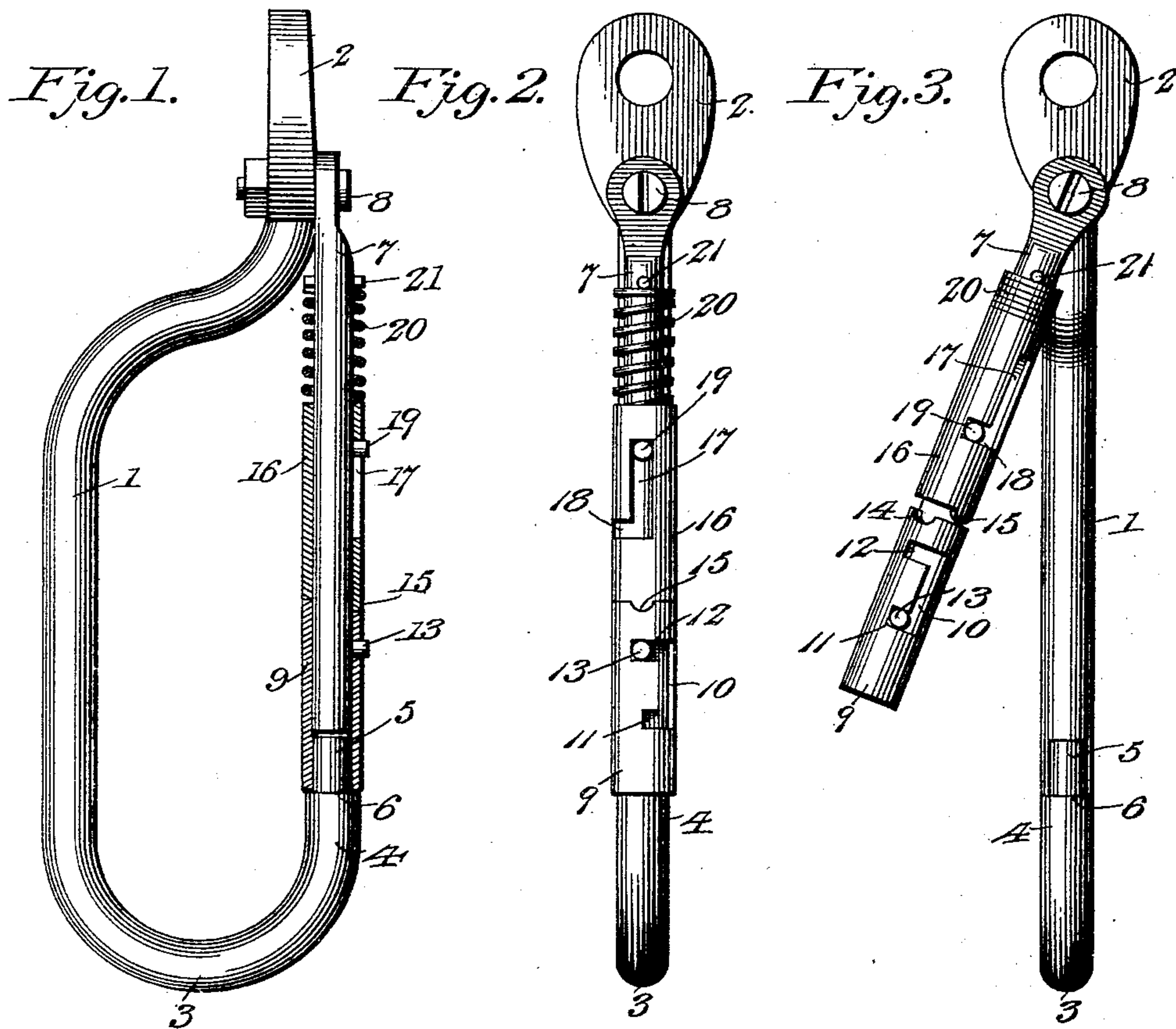


Fig. 4.

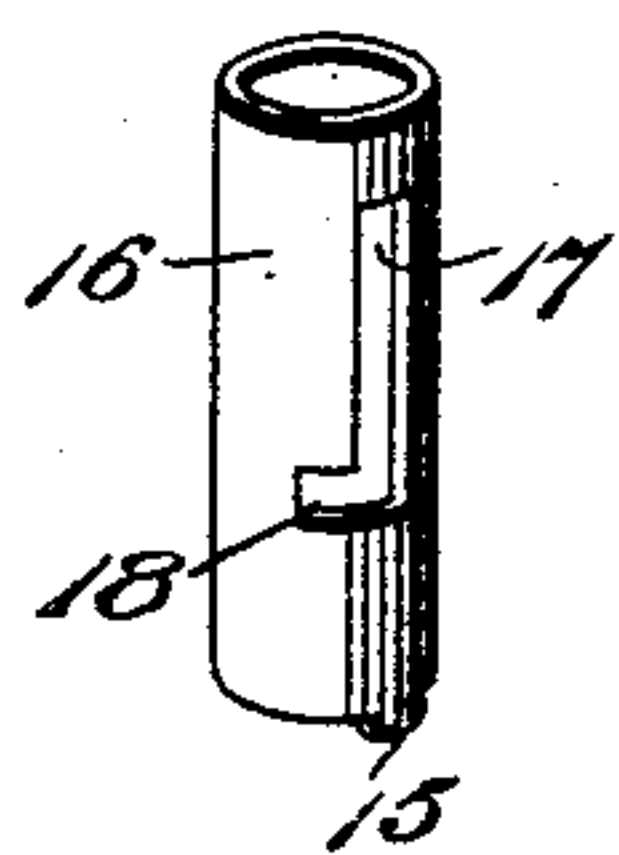
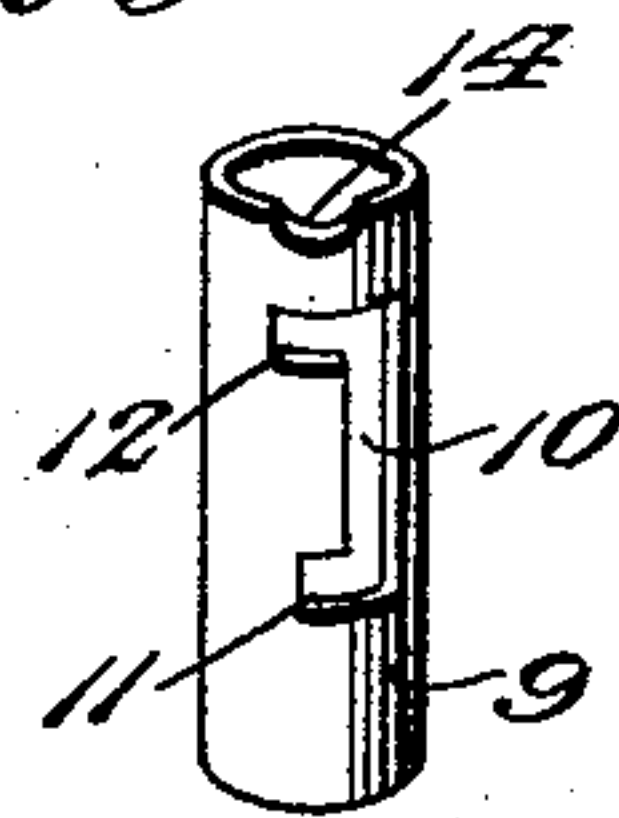


Fig. 5.



S. E. Farmer Inventor

Witnesses

Edwin G. McKee

Geo. Ackman.

By

Victor J. Evans

Attorney



# UNITED STATES PATENT OFFICE.

SIMEON E. FARMER, OF MARION, KENTUCKY.

## SAFETY-HOOK.

SPECIFICATION forming part of Letters Patent No. 684,419, dated October 15, 1901.

Application filed March 11, 1901. Serial No. 50,724. (No model.)

*To all whom it may concern:*

Be it known that I, SIMEON E. FARMER, a citizen of the United States, residing at Marion, in the county of Crittenden and State of Kentucky, have invented new and useful Improvements in Safety-Hooks, of which the following is a specification.

This invention relates to safety-hooks, and while the hook is designed especially for use in hoisting ore and other material in the shafts of mines it will be apparent as the description proceeds that the hook is susceptible of a variety of uses and that it may be employed wherever a safety-hook is desirable.

The principal object of the invention is to provide in combination with a hook a tongue provided with a sleeve which is yieldingly held in locked engagement with the point of the hook when the tongue is closed.

A further object of the invention is to provide means whereby the locking-sleeve may be held elevated on the tongue to prevent it from engaging the point of the hook.

These and other objects of the invention will appear more fully in the course of the ensuing description.

The invention consists in a safety-hook embodying certain novel features and details of construction and arrangement of parts, as hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a safety-hook constructed in accordance with the present invention, showing the parts interlocked. Fig. 2 is an edge view of the same. Fig. 3 is an edge view of the hook, showing the tongue swung out of engagement with the point of the hook. Fig. 4 is a detail perspective view of the presser-sleeve. Fig. 5 is a similar view of the locking-sleeve.

Similar numerals of reference designate corresponding parts in each of the figures.

The hook contemplated in this invention comprises a body portion 1, terminating at one end in an attaching-eye 2, the opposite end of the body 1 being curved, as shown at 3, to form the bend of the hook, which is extended to form a bill 4, the extremity of which is reduced to form the point 5 of the hook, at

the base of which is a shoulder 6, against which the locking-sleeve, hereinafter described, is adapted to bear while at the same time embracing the point of the hook.

In carrying out the present invention I provide a tongue 7, which for convenience is shown as consisting of a straight shank, one end of which is flattened and connected to the body of the hook adjacent to the eye 2 by means of a pivot 8 of any suitable construction. Mounted upon and surrounding the free end of the tongue is a locking-sleeve 9, provided with a bayonet-slot 10, consisting of a longitudinal portion terminating in right-angularly-disposed transverse portions 11 and 12. The tongue 7 is provided with a sleeve-retaining pin 13, which enters the slot 10, as shown in the above figures of the drawings, which pin is adapted to engage either one of the transverse portions 11 and 12 of the slot for locking the sleeve in its lower or in its upper position. The locking-sleeve 9 is further provided in its upper edge with a notch 14, adapted to be engaged by a correspondingly-formed projection 15 on the lower end of an adjoining presser-sleeve 16, which also surrounds the tongue 7 and is provided with a bayonet-slot 17, terminating at its lower end in a right-angular extension 18. A second retaining-pin 19 is carried by the tongue 7 end enters the slot 17, permitting the sleeve 16 to be moved up and down on the tongue and to be locked in an elevated position by partially turning the sleeve 16, so as to bring the angular portion 18 of the slot into engagement with the pin 19.

Above or behind the presser-sleeve 16 is an expansive spring 20, which is seated at one end against the sleeve 16 and at its opposite end against a pin 21 on the tongue.

From the foregoing description it will be understood that the spring 20 serves to press both of the sleeves in the direction of the free end of the tongue, so as to cause the locking-sleeve to engage around and interlock with the point of the hook and at the same time interlock with the sleeve-retaining pin 13, which will prevent the accidental retraction of the locking-sleeve. It will also be seen that the accidental turning of the sleeve 9 is prevented by reason of its interlocked en-



gagement with the presser-sleeve 16. In order to open the hook, the sleeve 9 is partially turned, so as to disengage the notch 14 and projection 15 and bring the longitudinal portion of the slot 10 into line with the pin 13, whereupon both sleeves may be pushed toward the pivoted end of the tongue by overcoming the tension of the spring 20. If for any reason the pressure of the spring 20 is not needed to keep the locking-sleeve in engagement with the point of the hook, the presser-sleeve may be elevated and partially turned to bring the angular portion 18 of the slot 17 into engagement with the pin 19. In some cases the presser-sleeve 16 and the retaining-pin 19 may be dispensed with and the spring 20 be made of sufficient length to bear against the locking-sleeve 9, or both the presser sleeve and spring may be omitted to provide a cheap form of hook, which, however, will not be as safe in action as that involving the construction heretofore set forth.

I do not desire to be limited to the exact details of construction and arrangement hereinabove set forth, and accordingly reserve the right to change, modify, or vary the construction within the scope of the appended claims.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a safety-hook, the combination with the hook proper formed near its point with a shoulder, of a pivoted tongue, and a spring-sleeve slidingly mounted on the tongue and engaging the point of the hook and adapted to rest on said shoulder.

2. In a safety-hook, the combination with the hook proper, of a pivoted tongue, a locking-sleeve on the tongue for engaging the point of the hook, and means for permitting

a limited sliding and turning movement of the locking-sleeve.

3. In a safety-hook, the combination with the hook proper, of a pivoted tongue, a locking-sleeve provided with a bayonet-slot and mounted on the tongue, and a retaining-pin on the tongue engaging said slot.

4. In a safety-hook, the combination with the hook proper, of a pivoted tongue, a pin projecting therefrom, and a spring-pressed locking-sleeve on the tongue adapted to engage the point of the hook and having a limiting-slot engaged by the pin on the tongue.

5. The combination with a hook, of a pivoted tongue, a spring-pressed sleeve on the tongue arranged to interlock with the point of the hook, and means for locking said sleeve.

6. The combination with a hook, of a pivoted tongue, a spring-pressed sleeve thereon having a bayonet-slot, and adapted to interlock with the point of the hook, and a sleeve-retaining pin on the tongue which enters said slot.

7. The combination with a hook, of a pivoted tongue, a locking-sleeve thereon adapted to engage the point of the hook, a presser-sleeve having means to interlock with the locking-sleeve, and a sleeve presser-spring.

8. The combination with a hook, of a pivoted tongue, a locking-sleeve thereon adapted to engage the point of the hook, a presser-sleeve, a sleeve-actuating spring, retaining-pins on the tongue entering bayonet-slots in both sleeves, and interlocking means on the adjacent ends of the sleeves.

In testimony whereof I affix my signature in presence of two witnesses.

SIMEON E. FARMER.

Witnesses:

D. WOODS,

J. A. FARMER.