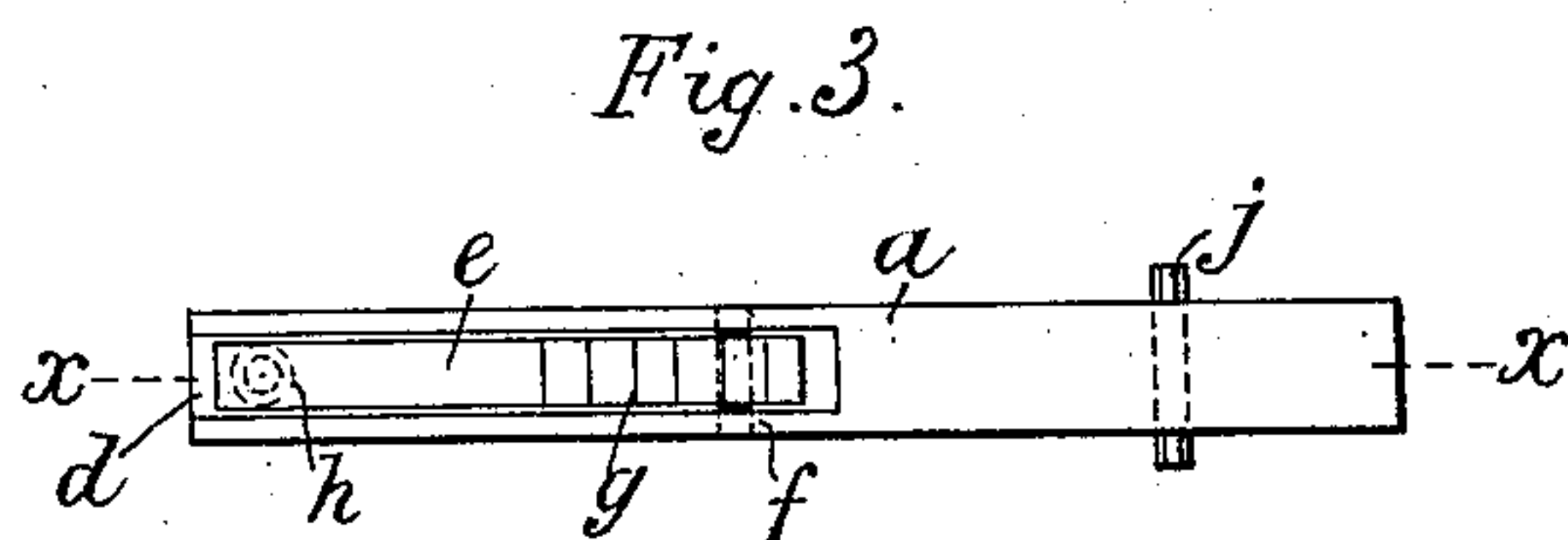
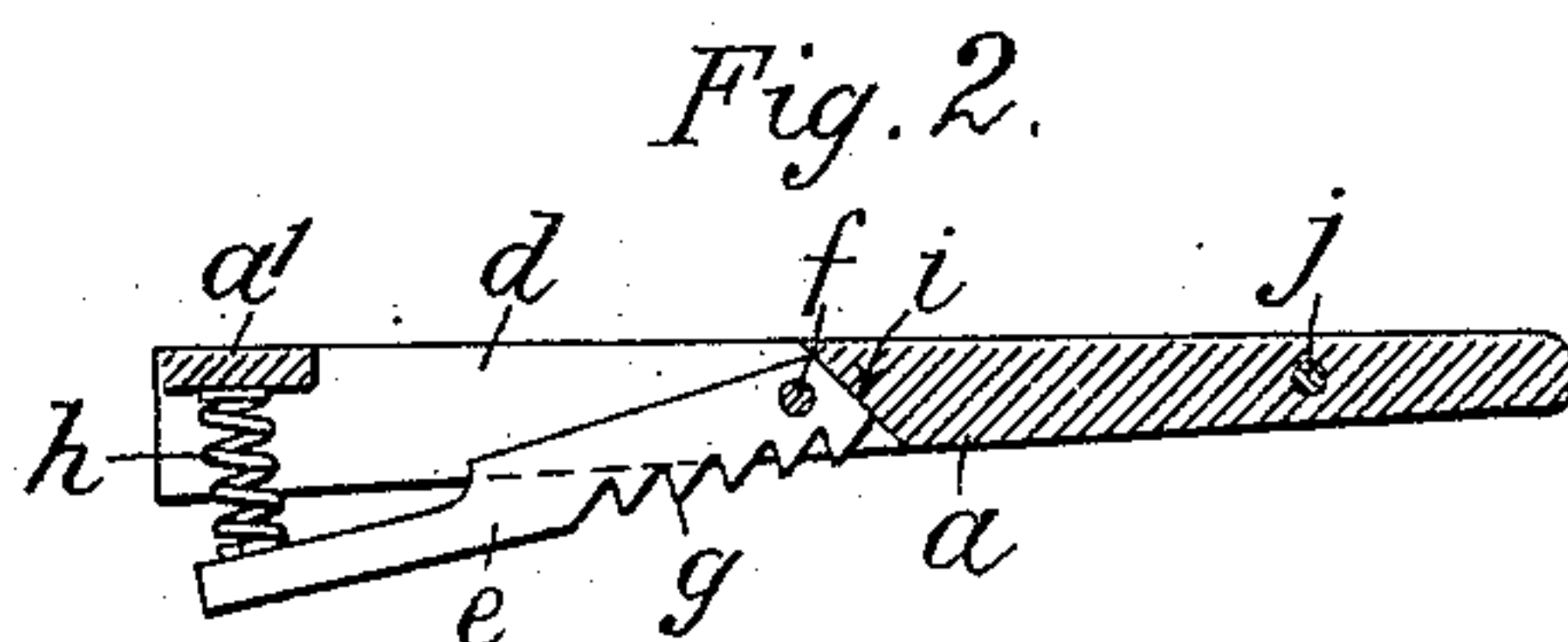
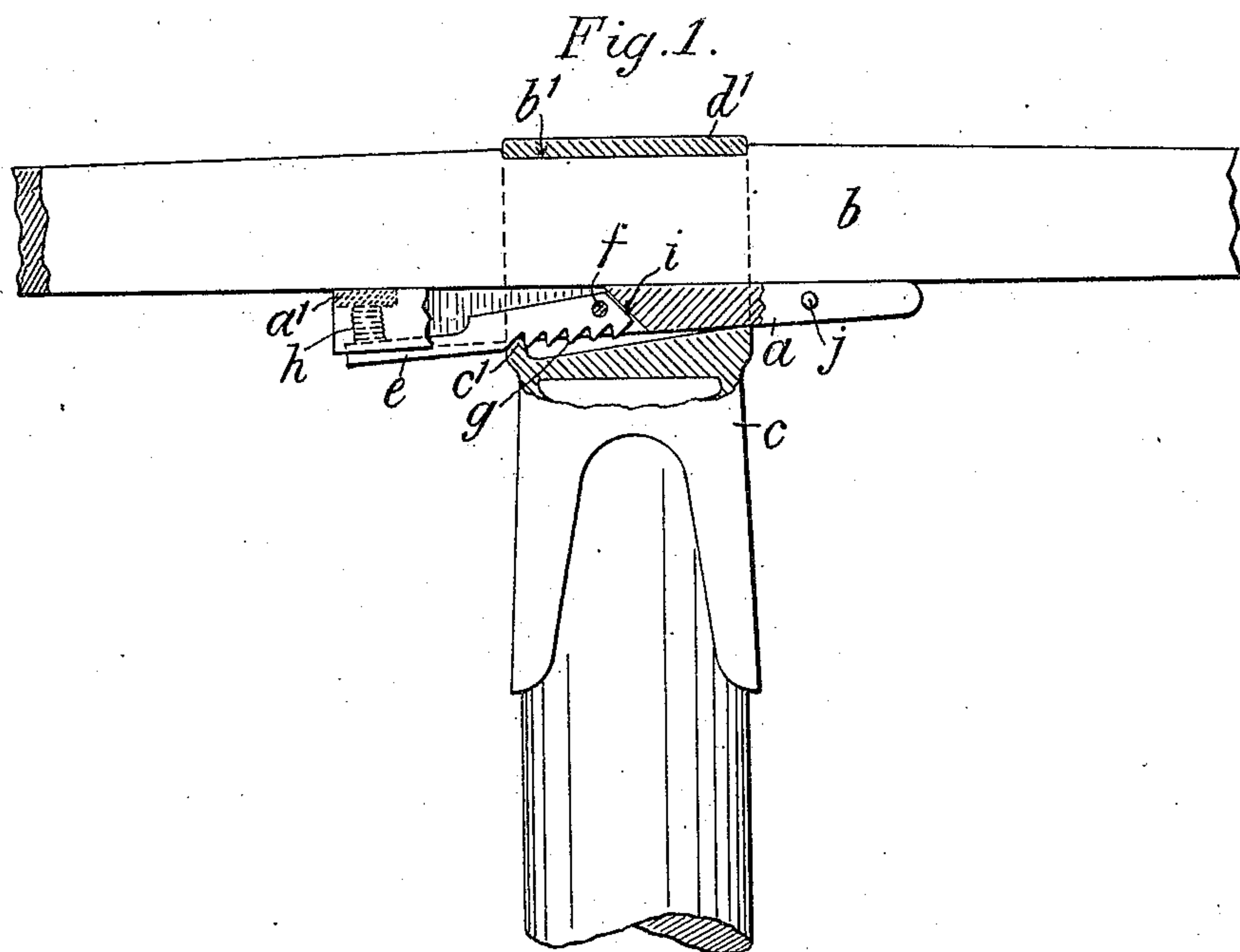


No. 828,299.

PATENTED AUG. 14, 1906.

J. BEETON.  
MINER'S PICK.

APPLICATION FILED OCT. 26, 1903.



Witnesses:  
Frank H. Kent.  
Wm B. Loring Jr.

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# UNITED STATES PATENT OFFICE.

JOHN BEETON, OF HUCKNALL TORKARD, ENGLAND.

## MINER'S PICK.

No. 828,299.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed October 26, 1903. Serial No. 178,522.

*To all whom it may concern:*

Be it known that I, JOHN BEETON, miner, a subject of the King of Great Britain and Ireland, residing at Hucknall Torkard, in the county of Nottingham, England, have invented new and useful Improvements in Miners' Picks and Like Tools, of which the following is a specification.

This invention relates to miners' picks and like tools; and it has reference to a novel method of securing the blade to its socket.

The objects of my invention are, first, to secure the pick-blade in the socket in such a manner that should it by any chance work loose it will not leave the socket; secondly, that should it tend to become loose by wear or other cause it can be at once tightened up, and, thirdly, to enable the blade to be easily removed from the socket, when desired, for renewal or other purpose. I attain these objects by means of a self-locking wedge or device constructed substantially as herein-after described, and more particularly pointed out in the claims, and in order to enable those skilled in the art to make and use my invention I will describe the same in detail, reference being had to the annexed drawings, wherein—

Figure 1 is an elevation, partly in section, of a pick-head with my locking wedge or device applied thereto. Fig. 2 is a longitudinal vertical section on the line *x x* of Fig. 3 of the self-locking wedge or device removed from the pick-head, and Fig. 3 is an under side view of the same.

*a* is the self-locking wedge or device, which is so constructed or formed in two parts that when inserted in position to secure the blade *b* in the socket *c* it will automatically open or expand and become locked with the socket, so that blows on either end of the pick-blade cannot dislodge it. This is attained by forming the body of the wedge *a* with a slot or recess *d* and arranging therein a catch-lever *e*, pivoted on a pin *f*, passing through said wedge. This lever has formed on its lower surface and toward its pivoted end a number of teeth *g* adapted to engage a projection *c'*, formed on the edge of the socket-opening or (if this projection should become worn) on the edge of the socket itself, and said lever is pressed outward to cause the teeth to engage by a spring *h*, (or other resilient device,) which is fitted between the outer end of the lever *e* and the part *a'* of the

wedge. The inner end of this lever is inclined, as at *i*, and is adapted to abut against a correspondingly-inclined part formed in the body of the wedge, so as to limit the motion of the said lever. The pick-blade *b* has a depression *b'*, which engages with the steady-piece *d'* of the socket in the usual manner.

To secure a blade in the socket, it is first inserted, so that its depression *b'* engages the piece *d'* of said socket, and then the thin end of the wedge *a* is inserted into the socket and beneath the blade *b*. The outer end of the lever *e* is then pressed inward, thereby reducing the depth of the wedge and allowing it to be readily pushed home into position in the socket. On then releasing the lever *e* it flies outward under the action of the spring *h* and one of the teeth *g* engages with the projection *c'* on the edge of the socket-opening, and thus firmly secures the blade in its socket.

When it is desired to remove the blade, this is readily effected by pressing the lever *e* inward until the engaging tooth *g* thereof is released from the projection *c'* and then pulling the wedge outward from the socket. The blade thereupon becomes loose and is free to be removed without it being necessary to remove the wedge bodily from the socket, and in order to prevent the wedge quitting the socket it is advantageously provided with a cross-pin *j*, which when the blade is withdrawn will strike against and be retained by the socket.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a miner's pick or like tool, a device for securing the blade thereof in its socket, consisting of a self-locking wedge constructed in two parts pivoted together, one of such parts constituting the body portion of the wedge, and the other a lever, this latter having an incline at its inner end, and teeth on its under surface adapted to engage the socket, and a controlling-spring located between said lever and said body.

2. In a miner's pick or like tool, a locking device for securing the blade thereof in its socket, comprising a wedge-shaped body provided with a slot, a lever pivoted in said slot and having at one end an incline adapted to abut against a corresponding incline on said body, teeth on said lever adapted to engage a projection on the edge of the socket, a



spring for controlling said pivoted toothed lever, and a retaining cross-pin in the fore end of said wedge-shaped body.

3. The combination with a blade and its  
5 socket adapted also to contain a wedge, of a wedge fitted within the socket against the blade, a spring-actuated lever pivoted to the wedge, means of engagement between the lever and the socket, and means to limit the  
10 motion of the lever under impulse of its spring.

4. In a miner's pick or the like, the combination with its blade and socket adapted to receive also a wedge against the blade, of a

wedge provided with a longitudinally-dis- 15  
posed recess therein, a lever pivoted within that end of the recess that is disposed toward the narrower end of the wedge, and a projection upon the socket adapted to enter the recess and engage said lever. 20

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN BEETON.

Witnesses:

EDWARD D. HEARN, junr.,  
JAMES WARDALL.