(No Model.)

A. E. FRANCIS.

PICK.

No. 453,860. Patented June 9, 1891.

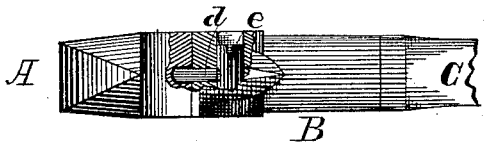

Fig. 3.

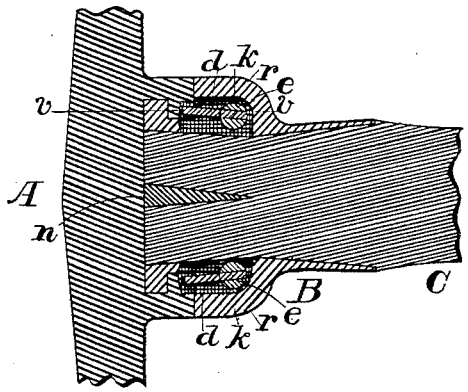

Fig. 2.

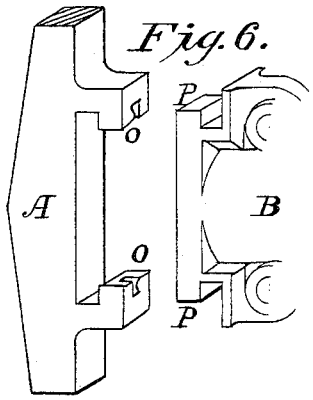

Fig. 6.

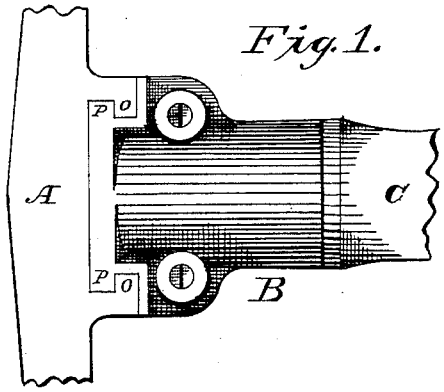

Fig. 1.

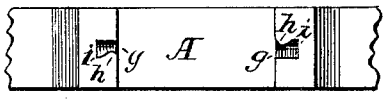

Fig. 4.

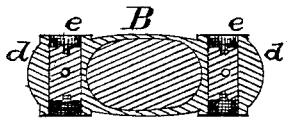

Fig. 5.

Witnesses.
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Inventor.
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UNITED STATES PATENT OFFICE.

ALLAN E. FRANCIS, OF CLEVELAND, OHIO.

PICK.

SPECIFICATION forming part of Letters Patent No. 453,860, dated June 9, 1891.

Application filed October 11, 1890. Serial No. 367,884. (No model.)

To all whom it may concern:

Be it known that I, ALLAN E. FRANCIS, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Pick, of which the following is a specification.

My invention relates to picks such as are used in mines for loosening and breaking up coal and ores and as a useful tool elsewhere in loosening clay, earth, and stones; and the objects of my improvements are, first, to provide a mode of securing a socket to a pick-head and to provide a separable head and handle; second, to provide a socket for the end of the handle to which picks of different weights can be successively secured or removed, and, third, to provide a pick-head so constructed as to make this possible without any removable parts, such as screws, nuts, or bolts, to be lost when changing in dark places, such as mines. This object I attain by the device illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the pick with head vertical, a portion of the handle and points being removed to allow larger scale. Fig. 2 is a sectional view of same, cutting it vertically into equal parts. Fig. 3 is an elevation of the pick with head in a horizontal position, a portion of the socket being removed to a line corresponding to *v v*, Fig. 1. Fig. 4 is a plan view of the side of pick-head nearest the handle, showing the slots in lugs by which it is locked to the handle. Fig. 5 shows section at *k k*, Fig. 1, drawn from the handle portion. Fig. 6 is a detached view of pick-head and end of socket, showing tongues and grooves substantially as made.

A shows a portion of pick-head from which the points are severed, leaving its central part showing two lugs, each forming on its inner side a tongue and groove, and B is the socket, cast of strong metal.

C is the pick-handle, wedged in the socket, as shown at *n*.

The socket B is provided with two projecting parts *r r*, into which the core extends in casting, forming narrow chambers in which the pins *d d* act, while on the lower ends of these projections are formed tongues and grooves to engage with corresponding ones on the pick-head. In each of these projecting parts *r r* of socket B is placed a short piece, screw-threaded, of metal rod *e*, provided at each end with a screw-driver slot, and when placed in the hole provided for its reception the pin *d* is inserted from the inside of the socket. The parts *e e* are shorter than the length of the holes, as shown in Fig. 5, so that battering of this part of the socket will not prevent working.

To adjust pick-head A to socket-handle B C, the head is held so that the tongues *o p* engage in corresponding grooves, when side pressure will carry them into place. The sides being even, a slight turn of each fastening *e e* throws pins *d d* into slots *g g*, when they are sprung past projections *h h* into recesses *i i* in slots *g g*, thereby locking the head to the handle.

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

A pick having head A, provided with transverse tongues and grooves *o p*, and socket B, provided with tongues and grooves a counterpart of *o p*, and socket B, having locks formed in projections *r r*, consisting of parts *e e*, into which are inserted pins *d d* to engage in slots *g g*, thereby locking the head to the handle, the same when made substantially as and for the purposes set forth.

ALLAN E. FRANCIS.

Witnesses:
M. M. FRANCIS,
JENNY L. FRANCIS.