(No Model.)

A. H. STOREY.

COMBINED PICK AND SHOVEL.

No. 365,208. Patented June 21, 1887.

FIG. 1.

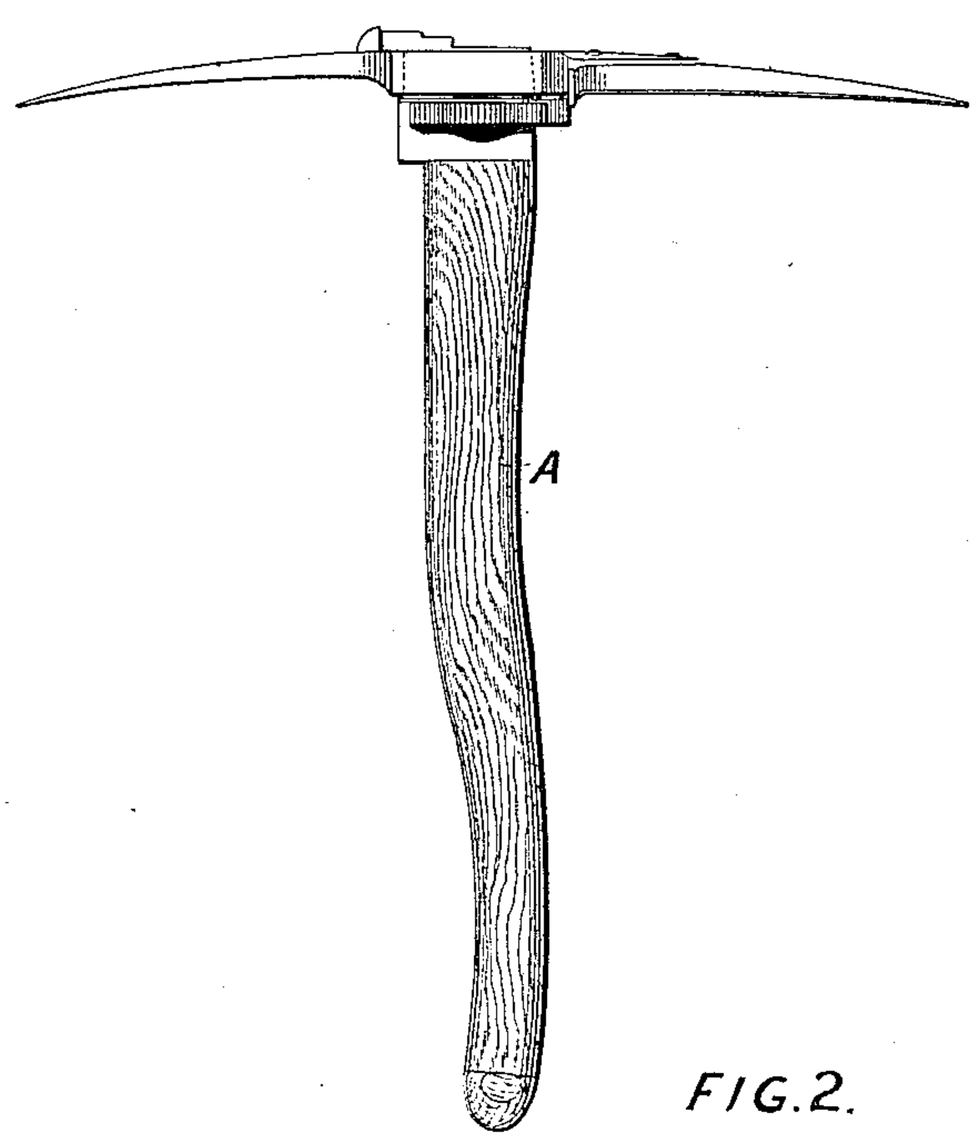


FIG. 3.

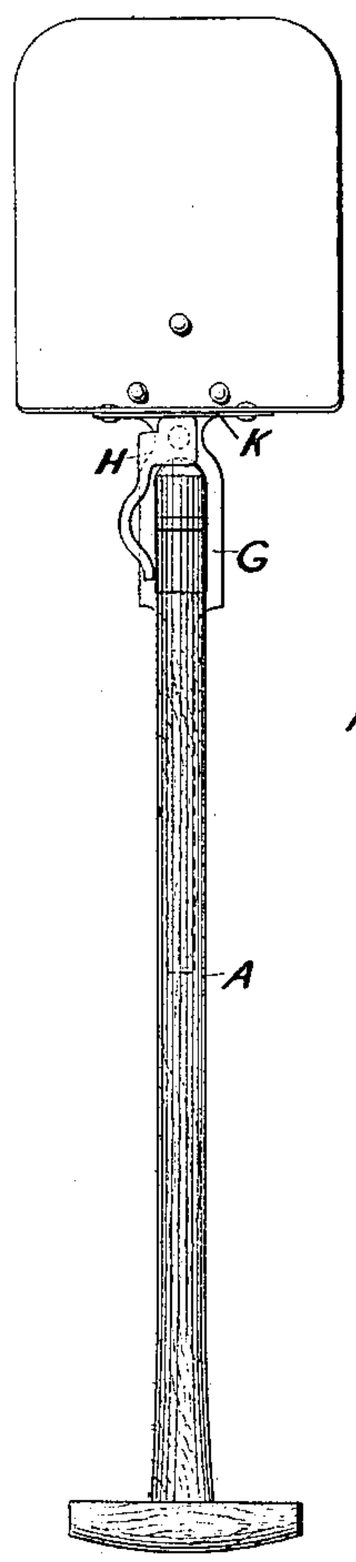


FIG. 4.

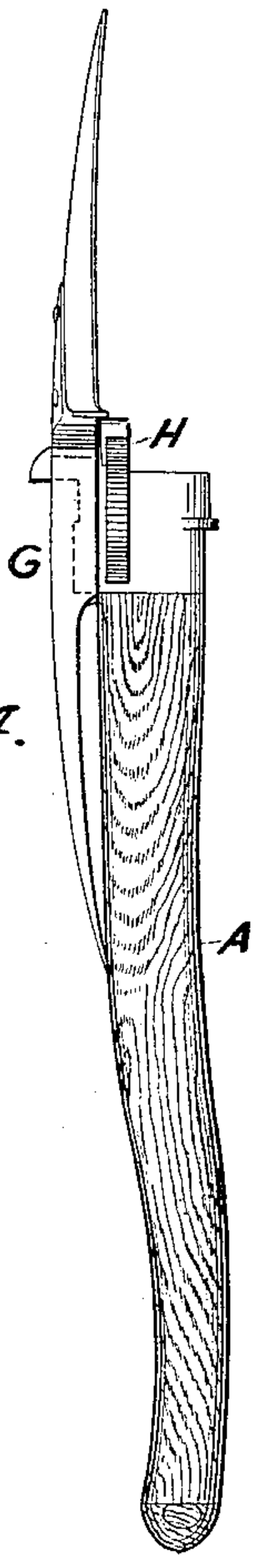


FIG. 2.

FIG. 5.

FIG. 6.

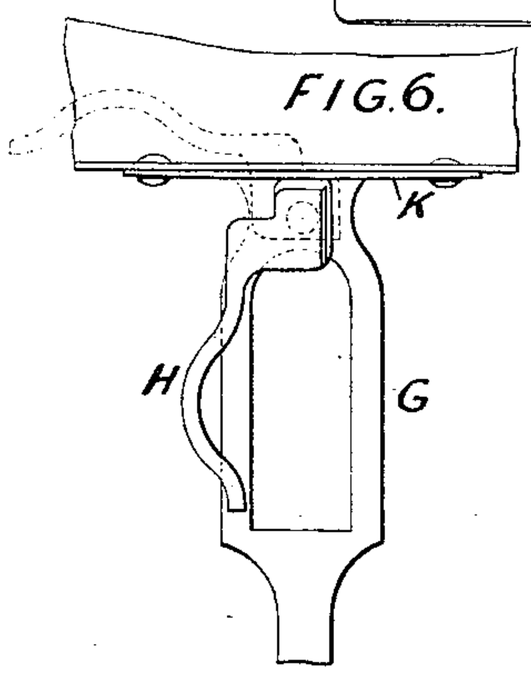
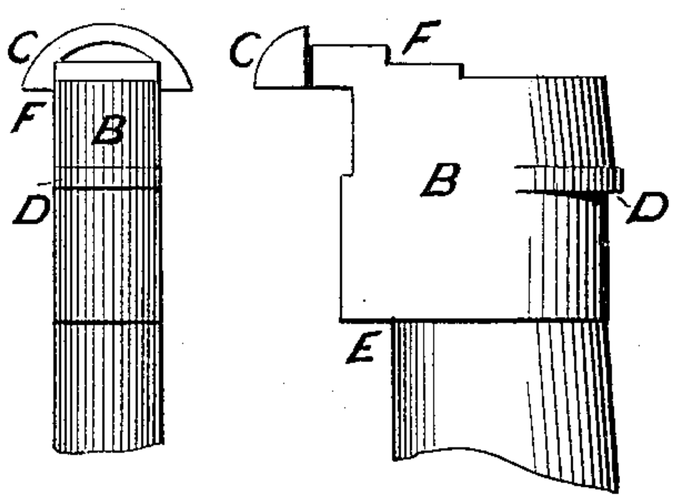


FIG. 7.



Witnesses.
Alex. Barkoff
William D. Conner

Inventor
Albert H. Storey
by his Attorneys
Howson & Sons

UNITED STATES PATENT OFFICE.

ALBERT HARLEY STOREY, OF LONDON, ENGLAND.

COMBINED PICK AND SHOVEL.

SPECIFICATION forming part of Letters Patent No. 365,208, dated June 21, 1887.

Application filed January 5, 1887. Serial No. 223,437. (No model.) Patented in France December 21, 1886, No. 180,415; in Belgium December 24, 1886, No. 75,713; in Canada January 19, 1887, No. 25,814, and in Italy January 20, 1887, No. 21,116.

To all whom it may concern:

Be it known that I, ALBERT HARLEY STOREY, a subject of the Queen of Great Britain and Ireland, and a resident of London, England, have invented an Improved Combined Pick and Shovel, (for which I have obtained French Patent No. 180,415, December 21, 1886; Belgian Patent No. 75,713, December 24, 1886; Canadian Patent No. 25,814, January 19, 1887, and Italian Patent No. 21,116, January 20, 1887,) of which the following is a specification.

A great evil is experienced in such tools as have a combined pick and shovel pivoted on the end of a handle-shaft in that a ring is used to secure the combined pick and shovel in its required positions, and this ring is and always will be either tight, and therefore difficult to move and liable to jam, or else loose, and therefore liable to slip away from its required positions, thereby temporarily rendering the tool useless.

Now, the object of this invention is to remedy this evil by so fitting the combined pick and shovel on the end of the handle-shaft that the same can easily and quickly be firmly secured in its required positions without any ring. I carry out this object by so forming and constructing the end of the handle-shaft, or a cap or cheeks thereon, that when the eye-socket or head in the shaft between the combined pick and shovel is placed round the same the combined pick and shovel is connected to and cannot fall away from the handle-shaft, even though there is no pivot-pin, and the combined pick and shovel can be secured in its required positions by a pivoted catch engaging certain parts of the end of the handle-shaft, or the cap or cheeks thereon, as is hereinafter more particularly described.

In the accompanying drawings I have shown a most convenient form and style of tool.

Figure 1 is a side elevation of the complete tool when ready to be used as a pick, and Fig. 2 is a plan thereof. Fig. 3 is a front elevation, and Fig. 4 is a side elevation, of the complete tool when ready to be used as a spade or shovel. Fig. 5 is a side elevation, and Fig. 6 is a plan, of the eye-socket or head of the combined pick and shovel. Figs. 7 are side and end elevations of the end of the handle-shaft. Figs. 5, 6, and 7 are on an enlarged scale.

On the end of any suitable handle-shaft, A, I fit, preferably, a metal or other cap, B, at the top of the front edge of which is formed a projection, C, and a shoulder, D, is formed on the rear edge of this cap B, to correspond therewith, in manner as is hereinafter explained. The bottom E of the front edge of the cap B projects somewhat beyond the handle-shaft A, and a shoulder, F, is formed on the top of the cap B, to correspond therewith, in manner as is hereinafter explained.

The combined pick and shovel is formed on and with or may be secured to one and the same shaft, wherein, between the pick and the shovel, is made the usual eye-socket or head, G, which can fit over the cap B on the end of the handle-shaft A. This socket or head G is made of such a size, and preferably of such a shape, as is shown, as to fit somewhat tightly on the cap B in the two required positions—namely, from the bottom E to the top in front of the shoulder F, and from a small recess under the projection C to the rear edge above the shoulder D.

Between the eye-socket or head G and the blade of the shovel is eccentrically pivoted on the shaft a block, H, to act as a catch, provided with a suitable handle or lever, preferably so bent, as shown, as to allow the same to be conveniently handled.

When the eye-socket or head G of the combined pick and shovel is duly placed on and round the cap B, which cap B is then in any usual or convenient manner fitted on and firmly secured to the end of the handle-shaft A, the combined pick and shovel cannot fall away from the handle-shaft, as the end of the projection C is made broader than the eye-socket or head G, while at the same time the shoulder D prevents it falling down the handle-shaft A, and thus the two parts of this tool are securely connected together without any pivot-pin, and cannot be separated until the cap B is taken off the end of the handle-shaft A. The combined pick and shovel can then be turned up at right angles, or thereabout, to the line of the handle-shaft, as shown in Figs. 1 and 2, until that end of the eye-socket or head G that is nearest to the pick is under and bears against the broad projection C, when the rear edge of the cap B, which is slightly bev-

eled, as shown, will cause this end aforesaid of the eye-socket or head G to enter the recess under the projection C, and that end of the eye-socket or head G that is nearest to the shovel bears against the top of the shoulder D, when the catch H is turned and engages under the shoulder D, and the combined pick and shovel is very firmly secured in this position, and the tool can be used as a pick. The catch H can then be turned back again into the position shown by dotted lines in Fig. 6, and the pick can be drawn down against the handle-shaft, as shown in Figs. 3 and 4, until that end of the socket or head G that is nearest to the shovel bears against the broad projection C, and that end of the socket or head G that is nearest to the pick can pass under the projecting bottom E of the front edge of the cap B, when the catch H is turned and engages the shoulder F, and the combined pick and shovel is very firmly secured in this position, and the tool can be used as a spade or shovel.

To prevent the catch H being turned by accident or misadventure, or without some little expenditure of force, I preferably make a flange, K, across the top edge of the blade of the shovel, and the catch H is so formed and with such angular and other parts as to bear against this flange K, and cause the same to act as a spring, which is bent and thereby put in tension as and when the catch H is being turned; and to strengthen this flange K, I can very conveniently secure thereon a strip of metal, as shown, to take the wear and tear off the same.

I consider that the exact shapes and proportions of the several parts of this tool, as shown in the drawings, are the best and most convenient; but when, for any cause, it is desirable so to do I may alter the same as I may prefer. The cap, also, on the handle-shaft may be formed by two metal or other plates or cheeks secured on the end of the handle-shaft; or the end of the handle-shaft itself may be formed in a similar manner, and the projections and shoulders may, if required, be attached thereto instead of being formed with the same.

I claim as my invention--

1. A handle-shaft having on its end projections C and E and shoulders D and F, in combination with the head of a combined pick and shovel, substantially as set forth.

2. A handle-shaft having on its end projections C and E and shoulders D and F, in combination with the head of a combined pick and shovel, and a catch, H, therefor, substantially as set forth.

3. The combination of the handle shaft with a combined pick and shovel, having a flange, K, and a pivoted catch, H, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT HARLEY STOREY.

Witnesses:
JAS. HART,
T. SMITH.