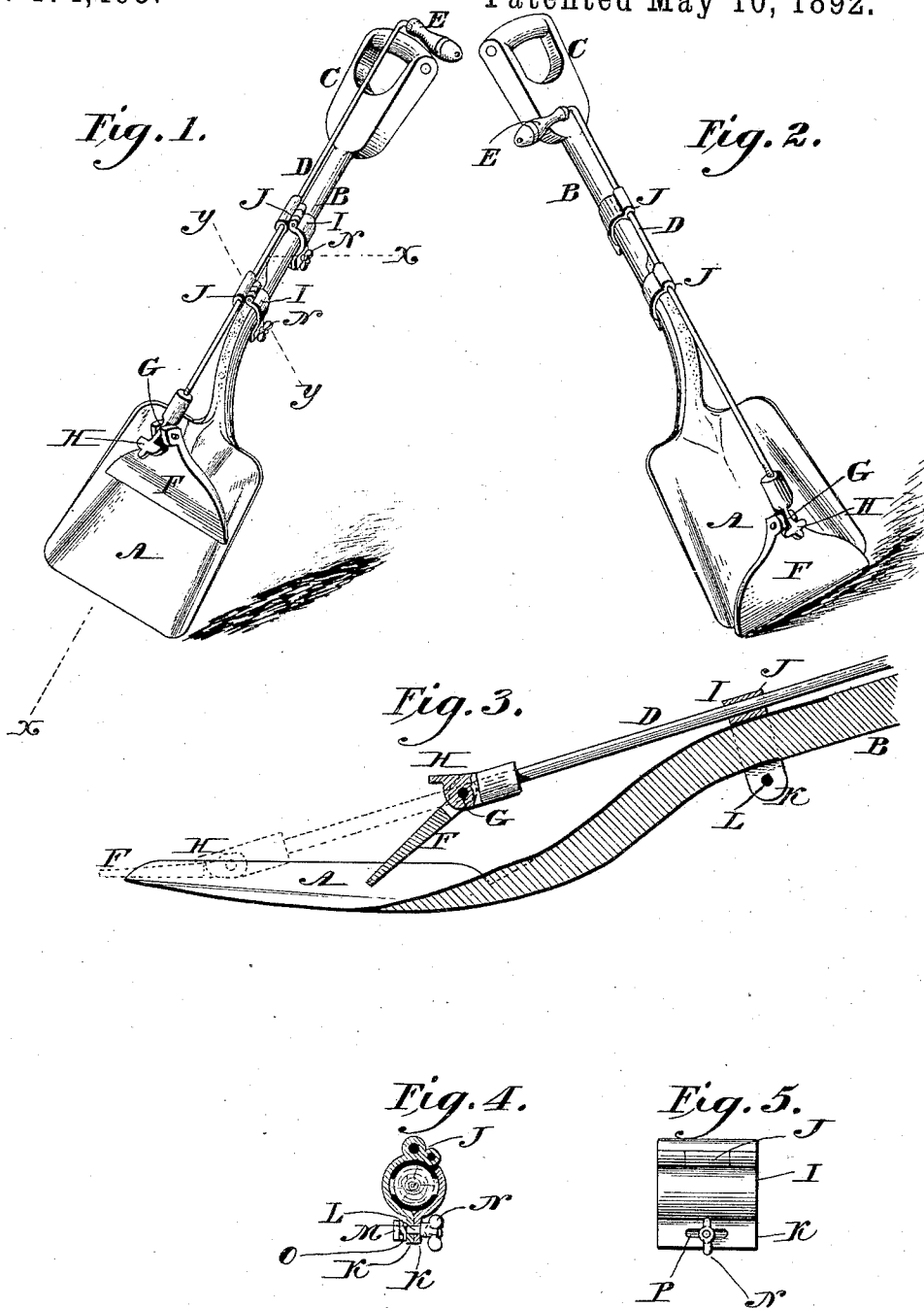


(No Model.)

R. S. BROWNING, Jr. & B. F. BATTERSBY.
COMBINED TAMPER AND SHOVEL.
No. 474,495. Patented May 10, 1892.



Witnesses:
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UNITED STATES PATENT OFFICE.

ROBERT S. BROWNING, JR., AND BENJAMIN F. BATTERSBY, OF PHILADELPHIA, PENNSYLVANIA.

COMBINED TAMPER AND SHOVEL.

SPECIFICATION forming part of Letters Patent No. 474,495, dated May 10, 1892.

Application filed October 20, 1891. Serial No. 409,248. (No model.)

To all whom it may concern:

Be it known that we, ROBERT S. BROWNING, Jr., and BENJAMIN F. BATTERSBY, citizens of the United States, and both residents of Philadelphia, Pennsylvania, have jointly invented a new and Improved Combined Tamper and Shovel, of which the following is a description, reference being had to the annexed drawings, making part hereof.

The nature of our invention will appear from the following description and claims.

In the drawings, Figure 1 is a perspective view of our device, showing the tamper drawn back ready to be pushed forward and downward; Fig. 2, a similar view showing the tamper thrown down; Fig. 3, a partial side and partial longitudinal view showing the tamper thrown forward in dotted lines to push the soil under the beam, tie, or other object to be tamped; Fig. 4, a cross-sectional view on the line *yy* of Fig. 1, illustrating a hinged detachable connecting-clamp to secure the tamper-rod to the haft of the shovel, the sectional cut being on the line *xx* of Fig. 1; Fig. 5, a side view of the clamp, showing the thumb-button for locking and unlocking it.

A is the shovel-blade; B, the haft of the shovel, secured in the usual way, and C the handle.

D is the tamper-rod; E, the handle thereof; F, the tamper-blade, made sufficiently thick on its front edge to insure its ability to pack the earth or soil against which it is thrust; G, the hinge connecting the tamper-blade with its rod D; H, a lip or check to prevent the tamper-blade from being thrown up.

I I are the detachable clamps; J, the hinges thereof; K K, the joining clips thereof, and L the attaching-bolt of the clamp, provided with a head M at one end and a thumb-button N at the other. Between the head M and the clip on its side is a spring-washer O to hold the bolt firmly set, and through the clip on the side of the thumb-button is pierced a slot P to receive the button when the latter is turned to release the clamp and remove the tamping mechanism.

The operation is as follows: The tamper is drawn back to the position shown in Fig. 1 and the shovel is used to throw the earth be-

neath the lower surface of a railroad-tie or beam and against the lower edge. Then holding the lower edge of the shovel against the said mass of earth the operative, using the handle E of the tamper, shoves it down and forward repeatedly, packing or tamping the earth, stone, or cinders, as the case may be, beneath the object to be tamped, and the operation is repeated until a sufficiently-firm foundation is established.

Our device can be used wherever tamping is found to be necessary, whether beneath railroad-ties, stone foundations, as in underpinning, beneath beams, and generally for all purposes where it is found necessary to pack a substance beneath a superincumbent body.

The clamping device may in its special structure be changed in ways which will occur to the minds of ordinary skilled mechanics; but by the use of our detachable clamp the tamper may be removed and the shovel or spade, as the case may be, can be used for ordinary purposes. Various methods of attaching the tamper may thus suggest themselves; but we have found the device above set forth to fully answer the purposes of our invention.

It will be noted that our tamping-blade is provided with a forward edge. This edge is of sufficient thickness to push, pack, or tamp the material being handled, and our blade is so set as to thrust against the mass of material to be packed.

We are well aware of the United States Letters Patent numbered 155,036, for transplanting, and that numbered 226,118, for digging post-holes. These devices are both used for inclosing and removing earth, as in the case of dredges, and we do not claim them as our invention, our device being a packer, the shovel or spade acting merely as a guide to direct the tamper and to deposit the earth and carry it to the point where it is to be hammered into a compact mass by the tamper. The tamper-blade, as shown, projects slightly beyond the lower edge of the shovel or spade.

What we claim as new is—

1. In combination with a shovel or spade, the tamper composed of rod D, provided at

- its lower end with the tamping-blade F, set above the carrying-face of the shovel and adapted, as shown, to push the mass to be packed off the shovel and tamp it at the point of deposit, said rod being loosely set longitudinally in holders I upon the haft of said shovel, whereby the tamping-blade F can be reciprocated by the rod, all operating substantially as described.
2. In combination with a shovel or spade, the tamper composed of rod D, provided at its lower end with the tamping-blade F, set above the carrying-face of the shovel and projecting by its lower part beyond the lower edge of said shovel, said rod being loosely set longitudinally in holders I upon the haft of said shovel, whereby the tamping-blade F can by the reciprocation of rod D be operated to tamp the mass which is carried by the shovel to the point of deposit, substantially as described.
3. In combination with a shovel or spade, the tamper composed of rod D, provided with a tamping-blade F, hinged to its lower end, the lower edge of said blade F resting upon the upper face of the shovel, above the lower edge of the latter, and adapted to follow said face in a forward thrust of said blade F, the rod D being loosely set longitudinally in clamps or holders I upon the haft of said shovel, all so arranged, as shown, that by the reciprocation of the rod D the blade F is operated to clear the shovel and tamp the mass

to be packed at the point of its deposit, substantially as described.

4. In combination with a shovel or spade, the tamper composed of rod D, provided with a tamping-blade F, hinged to its lower end, the lower edge of said blade F resting upon the upper or carrying face of the shovel, the said rod being provided with a lip or check H for the purpose set forth and being also loosely set or secured longitudinally in clamps or holders I upon the haft of said shovel, whereby the tamper-blade F can by the reciprocation of rod D be operated to tamp and pack the mass carried by the shovel to the point of deposit, substantially as described.

5. In combination with a shovel or spade, the tamper composed of rod D, provided at its lower end with a tamping-blade F, setting above the upper face of the shovel-blade, said rod being set longitudinally in detachable jointed clamps I, whereby the tamping device can be removed or attached at will and by the reciprocation of the rod, when attached, the blade F can be used to tamp or pack the mass carried by the shovel to the point of deposit.

In witness that the above is our invention we have hereunto set our hands.

ROBERT S. BROWNING, JR.
BENJAMIN F. BATTERSBY.

Witnesses:

GEORGE E. BUCKLEY,
H. V. BUCKLEY.