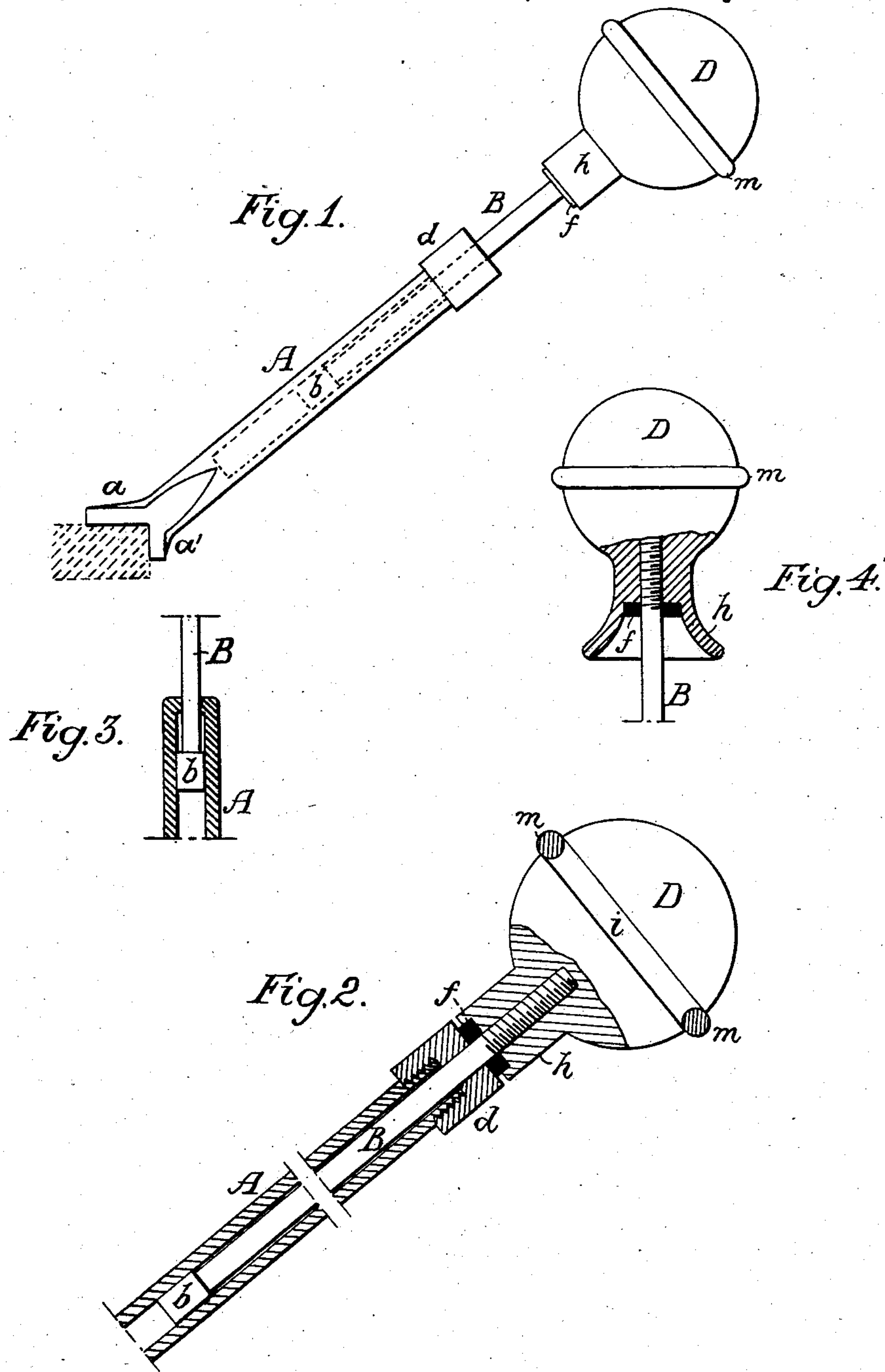


(No Model.)

F. L. ARMSTRONG.  
PRINTER'S SHOOTING STICK.

No. 260,821.

Patented July 11, 1882.



Witnesses:

Harry Drury  
Harry Smith

Inventor:

F. L. Armstrong  
by his Attorneys  
Howson and Ford

# UNITED STATES PATENT OFFICE.

FRANK L. ARMSTRONG, OF PHILADELPHIA, PENNSYLVANIA.

## PRINTER'S SHOOTING-STICK.

SPECIFICATION forming part of Letters Patent No. 260,821, dated July 11, 1882.

Application filed August 8, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK L. ARMSTRONG, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Printers' Shooting-Sticks, of which the following is a specification.

My invention consists mainly of a shooting-stick in which a stem having projections adapted to quoins is combined with a sliding rod and weight, so that a shooting-stick and mallet shall be combined in one instrument.

In the accompanying drawings, Figure 1 is a side view of my improved shooting-stick; Fig. 2, a section of part of Fig. 1, and Figs. 3 and 4 views illustrating modifications of the implement.

The stem A forms the handle of the shooting-stick, this stem being made tubular throughout the greater portion of its length for the admission of the rod B, which is secured to a weight, D, and the stem being shaped at its lower end in a manner similar to the lower termination of an ordinary shooting-stick, which has two projections, *a a'*, one for resting on the top of the quoin and the other for bearing against the end of the same. A cap, *d*, is screwed onto or otherwise secured to the upper end of the tubular stem A, and the rod B, which is arranged to slide in this cap, has at its lower end an enlargement, *b*, arranged to fit snugly but so as to slide freely within the stem, from which the rod cannot be withdrawn as long as the cap is in place. The rod may be prevented from escaping from the stem by simply closing the upper end of the same against the rod, so as to form an inner shoulder, as shown in Fig. 3; but I prefer the screw-cap. The weight may be of any desired shape; but the spherical form shown is the most convenient.

In operating with this implement, after the bifurcated end of the stem has been adjusted to the quoin the said stem is held in one hand, while with the other hand the operator grasps and reciprocates the weight, by which blows are thus struck against the cap *d*, or against

the end of the stem, if the cap is dispensed with; or the end of the rod B may be arranged to strike against the bottom of the chamber in the stem. As a cushioned blow is desirable, I prefer to use a washer, *f*, of rubber, leather, or other like yielding material, to receive the blow, the washer being loose on the stem or fitted into a recess in the weight or in the cup.

In order to prevent the pinching and wounding of the fingers by the weight, I make on the latter a projection, *h*, so that the fingers of the hand which grasps the said weight, if the manipulator uses ordinary care, cannot reach the end of the stem, and as a more efficient protection the projection *h* may be made flaring, as shown in Fig. 4.

The instrument can be conveniently used as a mallet for imparting the blows required on planers for leveling type in forms, in which case the stem will be held in the hand, the weight becoming the head of the maul, and in order that the blows may be cushioned I form a groove or grooves, *i*, in the weight for receiving a ring, *m*, of rubber or other yielding material, this ring also preventing the wounding of the type by contact of the weight with the faces of the same when the instrument is laid upon the form.

In some cases the stem A may be in the form of a rod, and the rod B may be made tubular and adapted to slide on instead of in the stem A, as will be readily understood.

I claim as my invention—

A shooting-stick in which a stem, A, having at the lower end projections *a a'*, is combined with a weight, D, and a sliding rod, B, guided on or in the stem A, all substantially as set forth.

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

FRANK L. ARMSTRONG.

Witnesses:

HARRY DRURY,  
HARRY SMITH.