

J. G. BAKER.  
Cutting-Instruments.

No. 162,007.

Patented April 13, 1875.

FIG. 1.

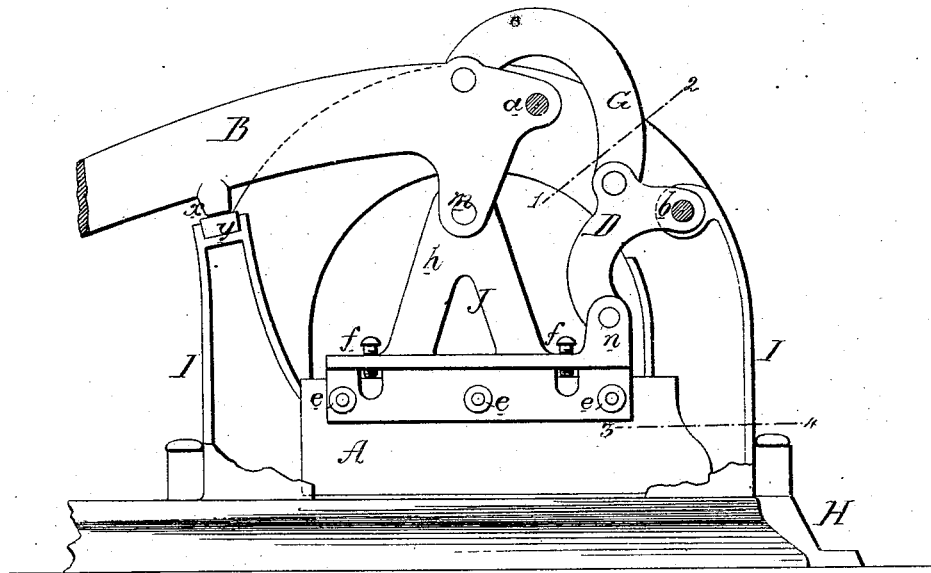


FIG. 2.

FIG. 3.

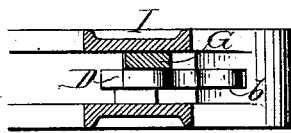
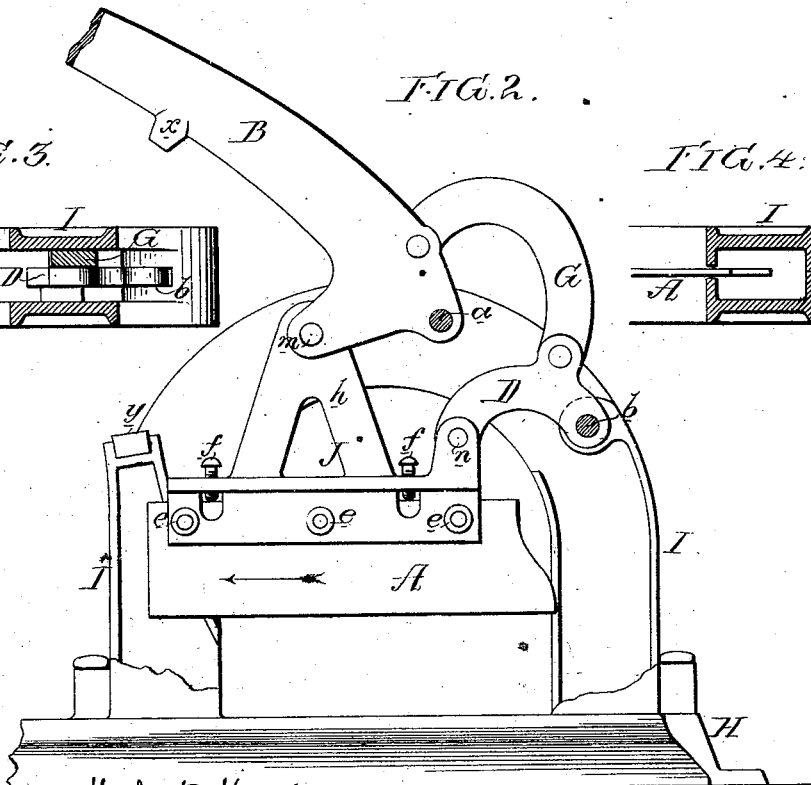
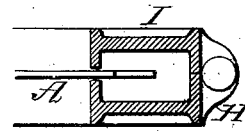


FIG. 4.



Witnesses, Hubert Hopson,  
Harry Smith.

J. G. Baker  
by his att<sup>ys</sup> Hanson and son

# UNITED STATES PATENT OFFICE.

JOHN G. BAKER, OF PHILADELPHIA, PA., ASSIGNOR TO THE ENTERPRISE MANUFACTURING COMPANY OF PENNSYLVANIA, OF SAME PLACE.

## IMPROVEMENT IN CUTTING-INSTRUMENTS.

Specification forming part of Letters Patent No. 162,007, dated April 13, 1875; application filed December 24, 1874.

*To all whom it may concern:*

Be it known that I, JOHN G. BAKER, of Philadelphia, Pennsylvania, have invented certain Improvements in Cutting-Instruments, of which the following is a specification:

The object of my invention is to make for druggists and others a simple and effective instrument for cutting different articles, but more especially roots and herbs in packages, the machine, although light, contracted, and consequently cheap, having a capacity for making a deep cut, as more fully described hereafter.

In the accompanying drawing, Figures 1 and 2 are side views, partly in section, of the instrument, illustrating the operating parts in different positions; Fig. 3 being a section on the line 1 2, and Fig. 4 a section on the line 3 4.

The frame of the instrument consists of the base H and standards I I, secured to the base and to each other. The frame, however, may be varied in style or conformation, providing it is such as to receive the fulcrum-pins *a* and *b*, (referred to hereafter,) and providing it affords suitable guides for the knife A. This knife is secured to a carrier, J, by screws or bolts *e*, and is made adjustable, by means of set-screws *f f*, to the cutting-bed on the base H. To a projection, *h*, on the carrier J, is connected, by a pin, *m*, the short arm of the operating-lever B, which is hung by the above-mentioned fulcrum-pin *a*, to the frame of the instrument, and a radius arm, D, is connected at one end to a lug, *n*, on the knife-carrier J, and at the other end to the pin *b* in the frame. The pins *a* and *b* and *m* and *n* are so arranged in respect to each other that the cutting-edge of the knife, whatever may be its vertical position, will always be parallel, or nearly so, with the cutting-bed, which consists of a strip of comparatively soft metal let into and secured to the base H at a point where it will receive the said edge of the knife.

The mechanism above described will operate in the absence of the connecting-rod G, referred to hereafter, but the depth of the cut

must be limited, for, if the knife be elevated beyond a given point, it cannot be easily depressed by the operating lever. If the latter, however, be connected to the radius-arm by the rod G in the manner shown, the knife may be elevated as far as the said lever will permit, and its easy descent, by operating the lever, will be insured by the presence of the said connecting-rod G. The duty of the latter is, in fact, an auxiliary one, to insure the descent of the knife after it has been elevated for the purpose of making the desired deep cut, and this deep cut can be made by a light instrument of contracted dimensions, owing to this connecting-rod.

It will be noticed that the force exerted to depress the knife is through a leverage gradually increasing as the cutting-edge of the knife approaches the cutting-bed. Before the knife has quite reached the bed a projection, *x*, on the operating-lever, comes in contact with an elastic pad, *y*, contained in a socket on the frame, and this pad absorbs the shock of the descending lever, but, by yielding, permits the edge of the knife to come in contact with the cutting-bed.

As the knife is being raised, it must necessarily move in the direction of the arrow, and as it is being lowered it must move in a contrary direction, with a shearing effect on the roots, herbs, or other substances placed on the bed.

I claim as my invention—

The combination of the knife A, the operating-lever B, pivoted to the knife and to the frame, the radius-arm D, also pivoted to the knife and frame, and the connecting-rod G, pivoted to the said operating lever and to the radius-arm, all substantially as and for the purpose described.

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

JOHN G. BAKER.

Witnesses:

HUBERT HOWSON,  
HARRY SMITH.