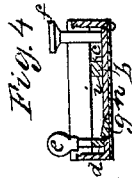
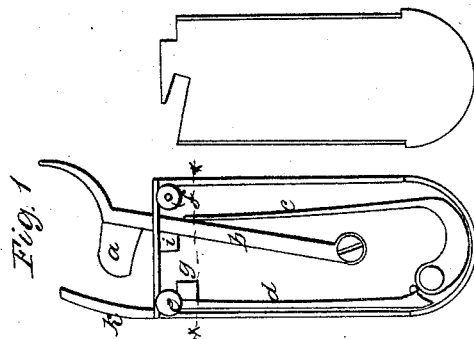
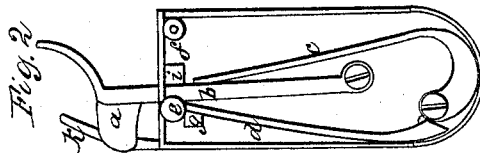
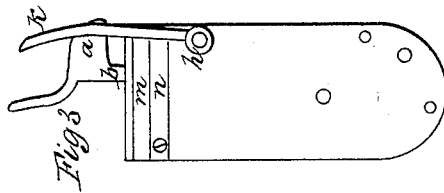


*J. H. Johnson,*

*Lancet.*

*N<sup>o</sup> 6,288.*

*Patented Apr. 10, 1849.*



# UNITED STATES PATENT OFFICE.

JAMES H. JOHNSON, OF ST. LOUIS, MISSOURI.

## SPRING-LANCET.

Specification of Letters Patent No. 6,288, dated April 10, 1849.

*To all whom it may concern:*

Be it known that I, JAMES H. JOHNSON, of the city and county of St. Louis and State of Missouri, have invented a new and useful Improvement in Spring-Lancets; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figures 1 and 2 are plans of my improved spring lancet, with the upper side of the inclosing box or casing removed, showing the internal arrangement of its movements. Fig. 3, is a view of the under side of the lancet casing, and Fig. 4, a transverse section through the same through the lines *x x* of Fig. 1.

Similar letters indicate like parts in all the figures.

The nature of my invention consists in the combination of a spring catch and a counter spring, with the shank of the blade of a spring lancet, in such a manner that at the instant the blade penetrates the vein, its shank will detach the counter spring from its spring catch, causing it (the counter spring) to throw back the lancet blade, and thereby preventing all danger from sudden muscular action at the moment that the vein is penetrated. The muscular action that usually occurs at the instant that the lancet point enters the vein, frequently causes it to penetrate deeper than the operator intended, when the ordinary spring lancet is made use of, attended with dangerous and sometimes fatal results.

The respective movements of my improved recoiling spring lancet are located in a suitable box or case, and are arranged and combined as represented in the drawings and hereinafter set forth.

The blade of the lancet is indicated by *a*, its shank by *b*, and the spring by which it is operated by *c*.

*i*, is the spring catch for retaining the lancet when it is thrown back into a position preliminary to its being operated.

*m*, (Fig. 3,) is a spring secured to the under side of the lancet case, to which the catch *i*,—passing through an aperture in the bottom of the case—is made fast.

*f*, is a knob rising above the top of the lancet case,—the shank of which descends through the same and is made fast to the extremity of the spring *m*. The counter spring *d*, is located in the lancet case in the

manner represented in Figs. 1 and 2; from the extremity of the counter spring (*d*) there rises—through a slot in the top of the case—the shank of the knob *e*, by which the spring is thrown back over the beveled face of the spring catch *g*, which retains the counter spring till it is disengaged therefrom by the forward movement of the shank of the lancet. The spring catch *g*, works through an aperture in the bottom of the lancet case, and is made fast to the spring *n*, which passes transversely under the bottom of the case and is confined thereto, as shown in Fig. 4.

A director *k*, is secured by the set screw *h*, to the under side of the bottom of the lancet-case and projects forward by the side of the blade of the lancet; the use of which is to gage and regulate the amount of penetration of the point of the lancet. To know the proper position for setting the director (*k*,) the lancet must be forced forward to its extreme point of action, and retained there till the position of the director is adjusted at a suitable distance from the lancet point.

The operation of my recoiling spring lancet is as follows: After setting the director *k*, in its proper position—as above set forth—the lancet is drawn back until its shank passes over the beveled face of the spring catch *i*, by which it is caught and retained, in the position represented in Fig. 1; and the counter spring *d*, is sprung back a sufficient distance to be caught and retained by the catch *g*; thus prepared, the lancet is held in its proper position, with the director (*k*,) slightly bearing upon the skin over the vein to be opened; then by pressing upon the knob *f*, the lancet is disengaged from its spring catch *i*, and is thrown forward by the spring *c*; at the instant that the lancet reaches its extreme point of forward action, its shank presses against and forces back the catch *g*, and thereby disengages the counter spring therefrom and enables it to throw back the lancet into the position represented in Fig. 2.

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

The combination of a counter spring (*d*,) and spring catch (*g*,) with the shank of a spring lancet, substantially in the manner and for the purpose herein set forth.

St. Louis, Mo., Sept. 18th, 1848.

JAMES H. JOHNSON.

Witnesses:

GEORGE STEVENS,

THOMAS S. WARNER.