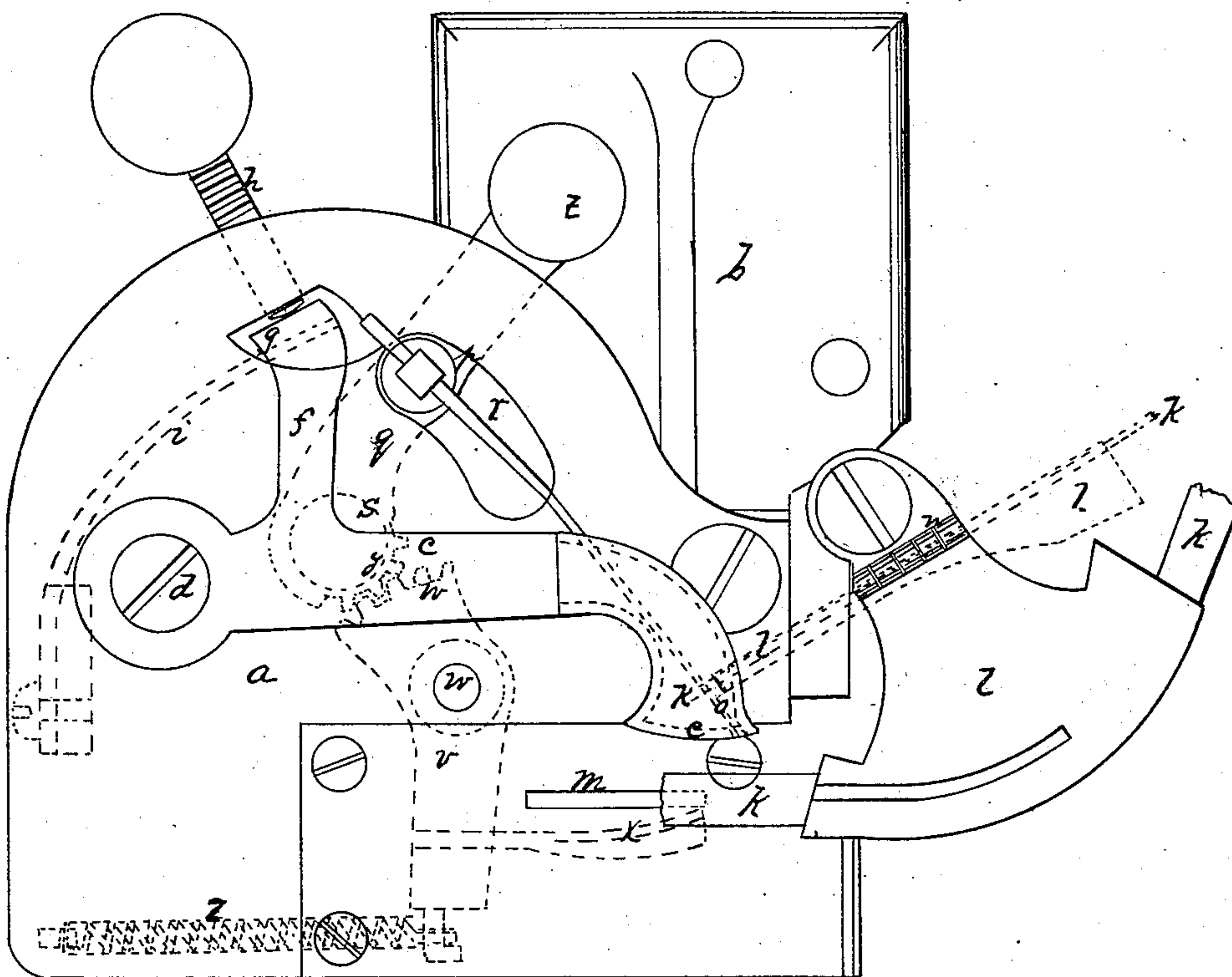


*H. Folsom.*  
*Sewing Machine.*

*Nº 42,846.*

*Patented May 24. 1864.*



*Witnesses.*

*J. B. Crosby*  
*Francis Gould*

*Inventor.*

*Hannibal Folsom.*

# UNITED STATES PATENT OFFICE.

HANNIBAL FOLSOM, OF MILFORD, MASSACHUSETTS.

IMPROVEMENT IN WELT AND THREAD CUTTERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 42,846, dated May 24, 1864.

*To all whom it may concern:*

Be it known that I, HANNIBAL FOLSOM, of Milford, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Sewing-Machines; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

This invention is principally applicable to that class of sewing-machines employed on boot and shoe work; and the improvement consists in the arrangement of a thread-knife below the table or work-plate of the machine and a welt-knife above said table-plate, to operate in conjunction to simultaneously sever the welt and thread, as will be hereinafter described; also, in the manner of applying the welt holder or guide, and in the mechanism for adjusting the welt-gage.

The accompanying drawing shows the application of my invention to the table-plate of a sewing-machine, or to what is known in one class of the well-known Townsend wax-thread machine as the "post," all the mechanism embodying my improvement being applied to the upper and lower sides of this plate.

*a* denotes the table-plate, fixed to the top of a post or standard, *b*.

*c* is a horizontal arm, turning on a screw or pin, *d*, and having at its front end the gage *e*, against which the boot-leg or work being sewed and the welt are held. An extension, *f*, from this arm has a lip, *g*, against which an adjusting-screw, *h*, and a leaf-spring, *i*, operate. The spring serves to hold the gage in position, as will be readily understood, while by turning the screw *h* the gage *e* is fed up or back, so as to regulate the distances between the row of stitches and the edge of the work abutting against the gage. The welt *k* passes through a guide, *l*, so arranged with respect to the table and the groove *m*, through which the needle works, as to deliver the welt in proper position to or between the work in which the welt is to be stitched. This guide is shown as applied to a projection from the post by a hinge, *n*, by means of which the guide can be turned up from the table-plate into a vertical position, as denoted by the red lines, so as to be readily thrown out of the path of the work when it is

not in use to deliver the welt. Just in rear of the face of the gage, and within the arm, a knife, *o*, is placed. The shank of this knife is fastened to a stud, *p*, projecting from a lever, *q*, (placed beneath the table,) through a slot, *r*, in the table. This lever turns on a pin or stud, *s*, and by application of the hand to a knob, *t*, the lever is so turned as to actuate the pin *s* and impel the knife *o* forward against, and so as to sever the welt. A cogged sector, *y*, is made upon or applied to the inner end of the lever *q*. This sector meshes into and operates a cogged sector, *u*, on the end of a lever, *v*, which turns on a fulcrum or pin, *w*. A knife, *x*, projects from the other end of this lever, the cutting-edge of said knife extending into juxtaposition with the vertical path of the needle and thread, and so that when the welt-knife *o* is thrown forward by the lever *q* to sever the welt the sector *y* actuates the lever *v*, throws the knife *o* back, and severs the thread, the two operations being simultaneous, as will be understood from the drawing. After the knives have thus operated and the knob *t* is released, a spring, *z*, draws back the opposite ends of the two levers *q* *v* and brings the knives into their normal position. By the arrangement of the welt-knife within the lever *q*, and so as to be projected at proper times from the face of the gage to cut the welt, I am enabled to employ the knife on top of the plate without its being in a position to injure or cut the work from contact therewith while the machine is operating, and by the employment of the two knives to operate above and below the plate *a* and simultaneously, as set forth, the machine can be run with speed onto successive pieces of work, as it is not necessary to turn the work over to get at the welt or to use a knife by hand under the machine to cut the thread.

I am aware that it is not new to attach a thread-cutter to and so as to form part of a sewing-machine, such an arrangement being shown in Patent No. 16,713, and my improvement being made to be used under said patent.

I am also aware that it is not new to combine a welt guide with a sewing-machine or with an edge-gage, as such have been before used.

What I claim is—

1. The arrangement of a welt cutter or knife



to operate above the plate *a*, in conjunction with the thread-knife, to cut the thread below said plate in the manner substantially as set forth.

2. The application of the knife so as to lie within the gage or lever, as shown, excepting when projected therefrom, as and for the purpose described.

3. The manner of applying the welt guide

or holder by the hinge or its equivalent, substantially as specified.

4. The combination of the spring *i*, arms *c f*, and screw *h*, for operating the edge-guide *e*.

HANNIBAL FOLSOM.

Witnesses:

J. B. CROSBY,

FRANCIS GOULD.