H. E. RUDOLPH.

ELECTRICALLY HEATED PRESSER FOOT.

APPLICATION FILED JUNE 28, 1921.

1,406,760. Patented Feb. 14, 1922.

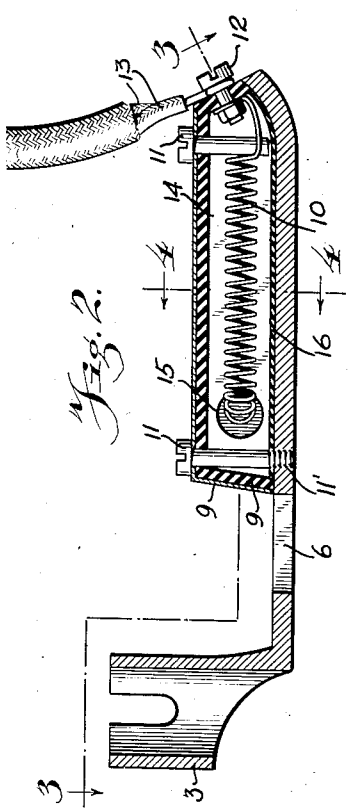


Fig. 2.

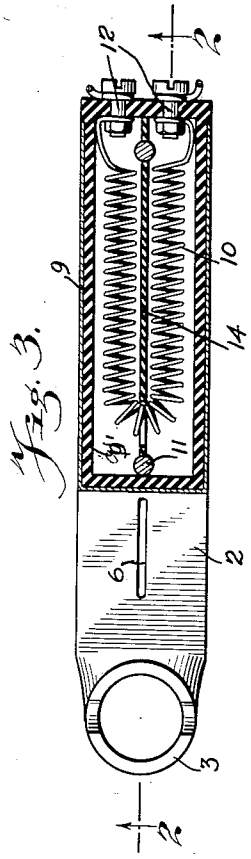


Fig. 3.

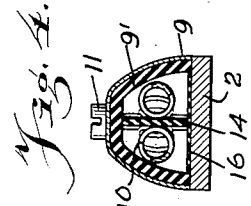


Fig. 4.

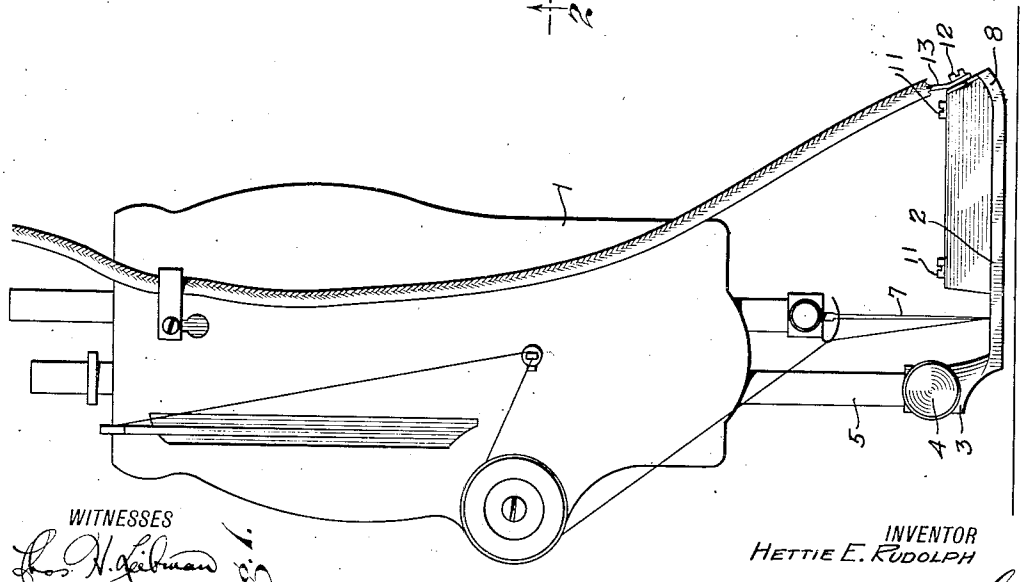


Fig. 1.

WITNESSES

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ELECTRICALLY-HEATED PRESSER FOOT.

1,406,760. Specification of Letters Patent. Patented Feb. 14, 1922.

Application filed June 28, 1921. Serial No. 481,013.

To all whom it may concern:

Be it known that I, HETTIE E. RUDOLPH, a citizen of the United States, and a resident of Bisbee, Lowell, in the county of Cochise and State of Arizona, have invented a new and Improved Electrically-Heated Presser Foot, of which the following is a full, clear, and exact description.

This invention relates to improvements in an electrically heated presser foot, an object of the invention being to provide on the presser foot of a sewing machine an electric heater so that the presser foot serves in addition to its ordinary function, the function of an iron to press seams, hems, pleats, tucks, etc., as they are stitched on the machine.

A further object is to provide an electric heater constructed as an attachment to fit the upper surface of a presser foot and function to heat the presser foot so that the latter functions as an iron during the operation of the machine.

With these and other objects in view the invention consists in certain novel features of construction, and combinations and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings—

Figure 1 is a view in elevation illustrating the head of a sewing machine and showing my improved heater in position on the presser foot thereof.

Figure 2 is an enlarged view in longitudinal section through the presser foot showing my improved heater thereon.

Figure 3 is a sectional plan view on the line 3—3 of Figure 2.

Figure 4 is a view in transverse section on the line 4—4 of Figure 2.

1 represents the head of an ordinary sewing machine and 2 the presser foot which is preferably elongated so as to provide an extended surface for the passage of material under the same. This presser foot 2 has a tubular shank 3 secured by a set screw 4 to the presser bar 5 of the machine and the presser foot is made with an opening 6 for the passage of the needle 7 of the machine. The outer free end of the presser foot 2 is curved upwardly, as shown at 8, to provide a ready entrance for the material under the same.

On the upper face of the presser foot 2 I locate the casing 9 of my improved electric heater 10. This casing 9 is preferably of metal having a lining 9′ of insulation and secured to the presser foot by means of screws 11, said screws projected through the casing and the lining and screwed into threaded openings 11′ in the presser foot.

The forward end of the casing 9 conforms to the upwardly curved shape of the end of the presser foot 2 and inside of the casing the electric heater or coil 10 is located having its terminals secured to binding posts 12 electrically connected by wires 13 with any source of electricity.

The coil 10 preferably comprises two runs of a coiled wire separated by a longitudinal partition 14 of insulation, the latter having an opening 15, through which the intermediate portion of the coil projects.

The operation of the device is as follows: When the heating coil 10 is in electric circuit with its source of supply, the heat generated in the coil will be imparted to the presser foot 2 and the said presser foot when in engagement with the goods, will serve as an iron to press down the seam, hem, or other portion of the material on which the machine is operated.

To prevent possibility of short circuiting I preferably provide a relatively thin sheet of mica 16 under the coil 10.

It is obvious that various changes might be made in the form of heater and the manner of connecting the same to the presser foot and in the other details of construction without departing from my invention, and hence I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

I claim:

1. As a new article of manufacture, a combination presser foot and iron.

2. As a new article of manufacture, a presser foot, and means carried thereby for heating the same.

3. The combination with a presser foot, and an electric heater thereon.

4. The combination with a relatively long presser foot, of a heater casing secured on the presser foot, and an electric heating coil in the casing.

5. The combination with a relatively long presser foot, of a heater casing secured on the presser foot, an electric heating coil in the casing, binding posts at the ends of the casing connected to the ends of the coil, and a partition extending longitudinally of the casing and having an opening therein through which the intermediate portion of the coil projects.

6. As a new article of manufacture, an electrically heated presser foot.

7. The combination with a presser foot, and a heater on the upper face thereof.

HETTIE E. RUDOLPH.