

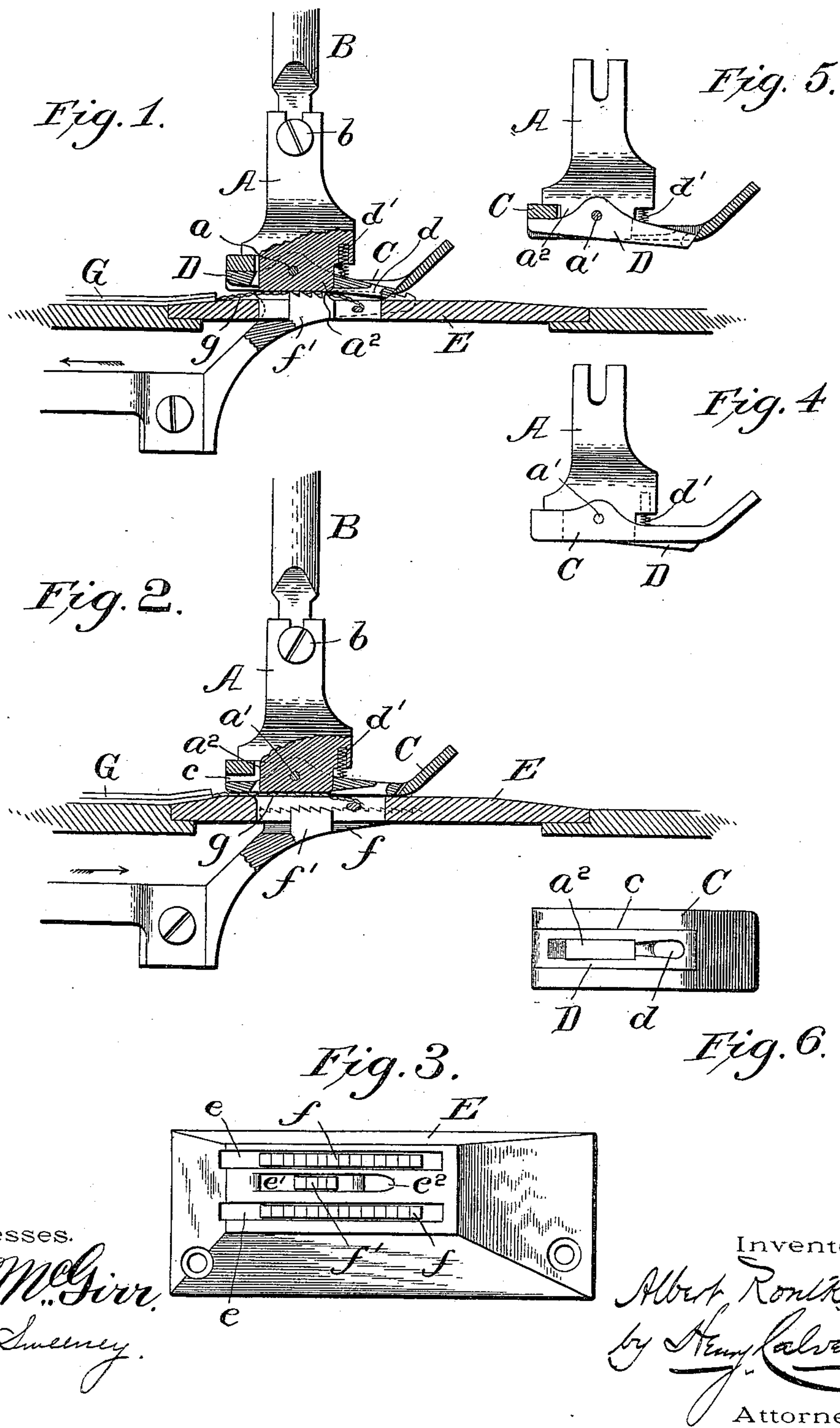
No. 621,147.

Patented Mar. 14, 1899.

A. RONTKE.
PRESSER FOOT FOR SEWING MACHINES.

(Application filed May 19, 1898.)

(No Model.)



Witnesses.

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PRESSER-FOOT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 621,147, dated March 14, 1899.

Application filed May 19, 1898. Serial No. 681,117. (No model.)

To all whom it may concern:

Be it known that I, ALBERT RONTKE, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Presser-Foots for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has for its object to provide a sewing-machine presser-foot with a thread-nipping lever intended more particularly for use in "chaining off" in a single or double chain-stitch machine and by the assistance of

15 which the enchained thread or threads of the seam may be fed forward after the material being sewed has passed the needle and presser-foot, so that the chaining off will be automatically effected without necessitating the work

20 being pulled forward by the attendant and also avoiding a trouble liable to occur by reason of the enchained thread or threads getting into the feed-opening in the throat-plate in line with the needle of the machine if the

25 work be not thus pulled forward by the attendant, so as to keep the enchained thread or threads taut, and thereby preventing the chain from sagging down. The thread-nipping lever referred to is arranged in a recess

30 in the bottom of the presser-foot, and when the said foot rests on the throat-plate the lower face of said lever is preferably just flush with the bottom of said foot, the rear end of said lever, which extends beyond the rear end

35 of the feed-slot in the throat-plate in line with the needle, acting when the foot is down to nip the enchained thread or threads against the part of the throat-plate just beyond the feed-slot referred to, thereby preventing the

40 chain from being retracted by the feed-dog when the latter returns. When, however, the presser-foot is lifted slightly by the feed-dog at the time the latter is in its elevated or feeding position and is making its feeding move-

45 ment, the forward end of the thread-nipping lever is depressed by a spring, thus elevating its rear end, so as to leave a clearance for the free forward movement of the chain clamped between a part of the bottom of the presser

50 and a part of the feed-dog.

In the accompanying drawings, Figure 1 is

a sectional elevation of a sewing-machine throat-plate, feed, and presser-foot illustrative of the invention, with the feed-dog in its raised or feeding position and with the presser-foot 55 slightly lifted from the throat-plate by the feed-dog; and Fig. 2 is a similar view, but with the feed-dog lowered and the presser-foot resting on the throat-plate. Fig. 3 is a plan view of the throat-plate and feed-dog. 60 Fig. 4 is a side view of the presser-foot; and Figs. 5 and 6 are sectional and bottom views, respectively, of the same.

A denotes the shank portion of a sewing-machine presser, attached to the presser-bar 65 B by a set-screw *b*, said presser-bar being provided with the usual spring (not shown) for pressing it yieldingly downward.

C is the sole or foot portion proper of the presser, and it is preferably pivoted to the 70 shank A by a pin *a'*, passing through a reduced central portion or tenon *a*² of the shank A, the lower face of said central portion or tenon *a*² being flush with the bottom of the hinged foot or plate C, so that said reduced 75 portion of said shank serves as a part of the presser-foot.

D is the thread-nipping lever, having the needle hole or throat *d*, said lever being arranged in a slot or recess *c* in the foot or plate 80 C and being pivoted on the pin *a'*, so as to be adapted to have a limited tilting movement in said slot or recess, the forward end of said lever being pressed upon by a small coil-spring *d'*, the upper end of which is received in a 85 recess in the shank A.

E is the throat-plate, having the side feed-slots *a* and the central feed-slot *e'* for the reception of the side and central parts *f* and *f'*, respectively, of the feed-dog. The longer 90 side parts *f* of the feed-dog work beneath the foot part C of the presser and the shorter central part *f'* of said feed-dog works beneath the tenon or reduced central part *a*² of the shank A. 95

The operation of the invention in chaining off is as follows: When the work G has passed beyond the needle and presser-foot, as denoted in Figs. 1 and 2, the chain *g* runs between the part *a*² of the presser and the cen- 100 tral part *f'* of the feed-dog, the latter being in line with the needle-hole *e*² of the throat-

plate. Without the assistance of the thread-nipping lever D the chain *g* would have a tendency to sag down into the feed-slot *e'* unless the attendant pulled the work forward, and thus kept the chain taut, and if the chain were to sag down into said feed-slot *e'* it might clog said slot and get in the way of the central part *f'* of the advancing feed-dog. Referring to Fig. 2, it will be seen that when the feed-dog has descended to its lowered position the rear end of the lever D, or the end farthest from the attendant, clamps the chain *g* against the throat-plate just rearward of the feed-slot *f'*, and thus holds the chain from being retracted by the feed; but when the feed-dog is in its elevated or feeding position and while it is making its work-advancing stroke the presser-foot is slightly lifted from the throat-plate and the spring *d'* depresses the forward end of the lever D and raises its rear end, (see Fig. 1,) so that there will be no obstruction to the feeding movement of the chain, as there is a free clearance for the same below the lifted rear end of said lever. When the feed descends and the presser-foot again rests on the throat-plate, the pressure of the foot against the throat-plate (against a part of which the forward end of the lever D now impinges) compresses the spring *d'* and causes the rear end of said lever to nip the chain, as above described and as shown in Fig. 2.

Although the invention is particularly intended for use with single and double chain-stitch machines, it may also be used with lock-stitch machines and also with pressers which have rigid or non-pivoted foot portions. Also while the spring *d'* is preferably employed to depress the forward end of the thread-nipping lever this spring is not indispensable, as the thread-nipping lever will perform its intended function without it.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. A sewing-machine presser having a rigid portion to bear on the work in the line of the needle-hole, said presser having a slot or recess in its bottom, combined with a thread-nipping lever arranged in said slot or recess

and having a thread-nipping part which is rearward of the rigid bearing portion of said presser and in the line of the needle-hole, and which thread-nipping part is free to relax its hold in the enchained thread or threads when the presser is lifted by the feed.

2. A sewing-machine presser comprising a shank and foot portion, the latter of which is provided at its bottom with a slot or recess, combined with a thread-nipping lever arranged in said slot or recess and serving to nip the enchained thread or threads when the presser-foot rests on the work-plate and while the feed is lowered and being retracted, and a spring for lifting the rear end of said lever when the presser-foot is raised slightly by the feed.

3. The combination with a sewing-machine throat-plate provided with a needle-opening and with a feed-slot in line with said opening, and a feed-dog having a part working in said slot, of a presser-foot a portion of which is arranged to bear against the said feed-dog part and which presser-foot has a slot or recess in its bottom, and a thread-nipping lever located in said slot or recess and serving to nip the chain against the throat-plate rearward of said feed-slot when the feed-dog is lowered.

4. The combination with a sewing-machine throat-plate provided with a needle-opening and with a feed-slot in line with said opening, and a feed-dog having a part working in said slot, of a presser-foot a portion of which is arranged to bear against the said feed-dog part and which presser-foot has a slot or recess in its bottom, a thread-nipping lever located in said slot or recess and serving to nip the chain against the throat-plate rearward of said feed-slot when the feed-dog is lowered, and a spring to lift the rear end of said lever when the presser-foot is slightly raised by the feed.

In testimony whereof I affix my signature in the presence of two witnesses.

ALBERT RONTKE.

Witnesses:

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