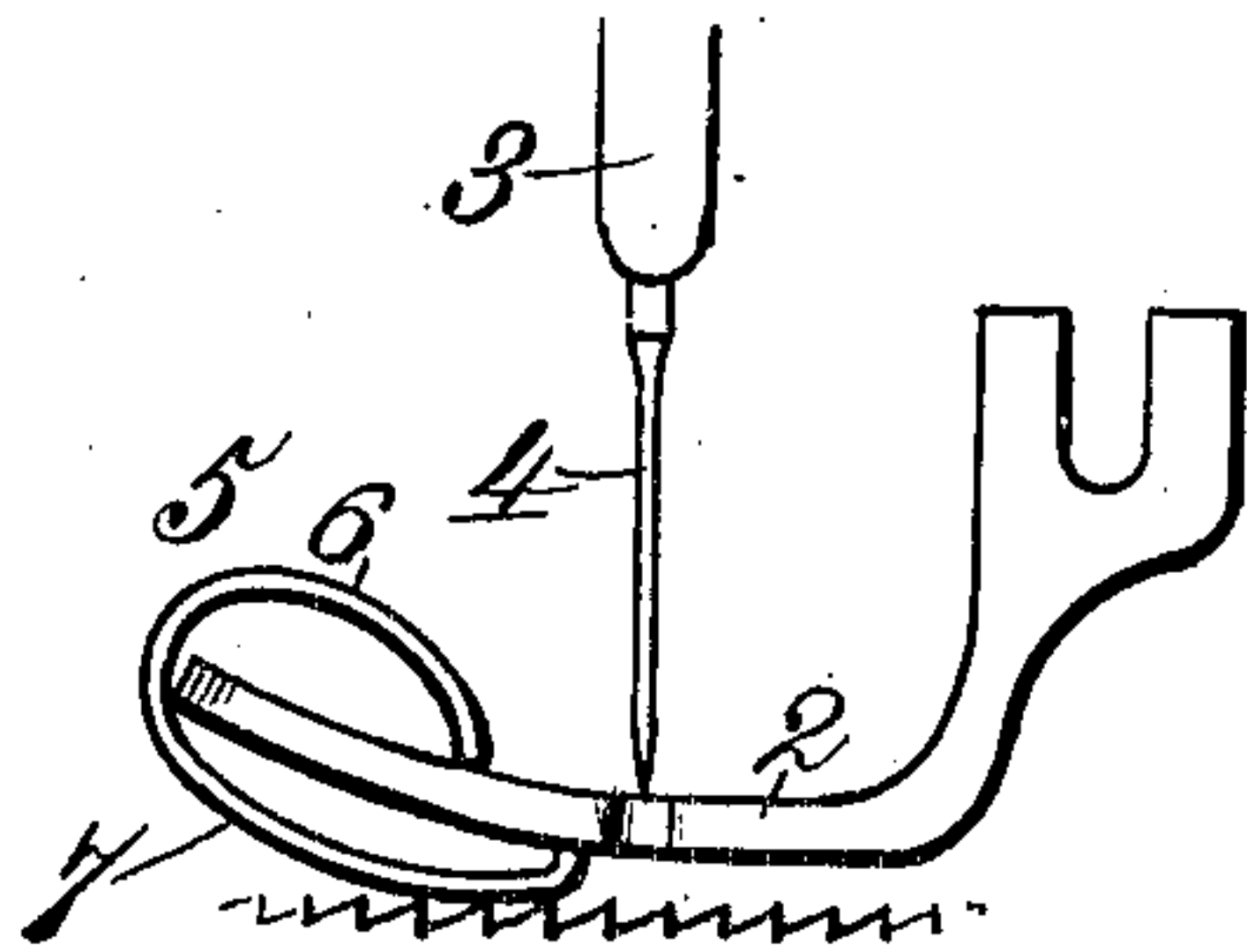


No. 843,440.

PATENTED FEB. 5, 1907.

E. H. BURRAGE.  
GATHERING ATTACHMENT FOR SEWING MACHINES.  
APPLICATION FILED SEPT. 27, 1906.

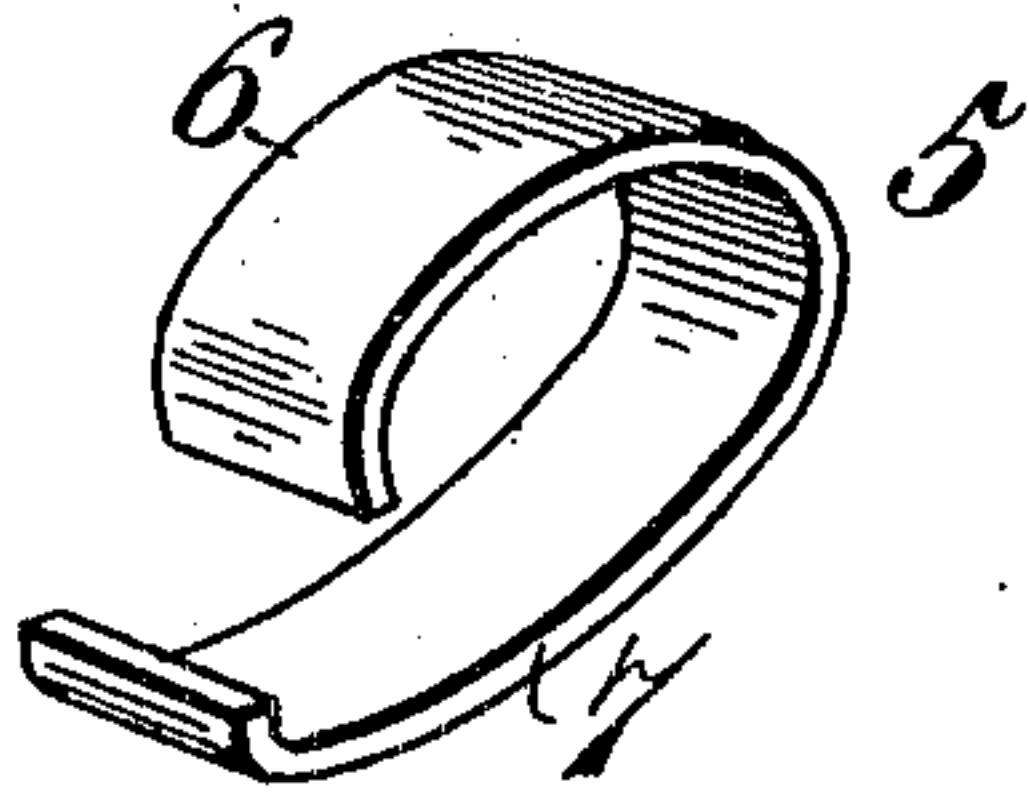
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses,  
Robert Smith,  
J. B. Keefe

Inventor,  
Enoch H. Burrage,  
By James L. Norris,  
Att'y.

# UNITED STATES PATENT OFFICE.

ENOCH H. BURRAGE, OF WINSTON SALEM, NORTH CAROLINA.

## GATHERING ATTACHMENT FOR SEWING-MACHINES.

No. 843,440.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed September 27, 1906. Serial No. 336,469.

*To all whom it may concern:*

Be it known that I, ENOCH H. BURRAGE, a citizen of the United States, residing at Winston Salem, in the county of Forsyth and State of North Carolina, have invented new and useful Improvements in Gathering Attachments for Sewing-Machines, of which the following is a specification.

This invention relates to what I shall for convenience term a "gathering" attachment for sewing-machines. The device, however, may be used to advantage for other purposes.

The article is simple in construction, being made of a single piece of material, and it may be quickly and easily attached to the presser-foot of a sewing-machine, whether such presser-foot be thick, thin, long, or short. The attachment comprises an upper branch and a lower branch, the latter being longer than the former, the free end of the upper branch being downwardly extended and the free end of the lower branch being upwardly extended and said ends in the present instance being squared, so as to engage firmly against the upper and lower surfaces of said presser-foot. The device is longitudinally curved, as will hereinafter appear, by virtue of which a certain amount of resiliency is obtained to provide for adjustability thereof. The gatherer is so associated with the presser-foot that there is no possibility of the needle coming in contact therewith.

In a device with which I am familiar and which is employed for use in ruffling there is a possibility of the needle coming in contact therewith, in which case the needle will be broken. By virtue of my attachment, however, this possibility is wholly avoided. While I have termed the device a "gathering" attachment, it may be used in forming other kind of work, such as shirring.

The invention includes other objects and advantages which, with the foregoing, will be fully set forth in the following description, while the novelty of said invention will be included in the claims succeeding said description.

In the drawings accompanying and forming a part of this specification, I illustrate in detail one advantageous form of embodiment of the invention which to enable those skilled in the art to practice said invention

will be fully described in said description. Certain variations, however, may be adopted within the scope of my said claims.

Referring to the drawings, Figure 1 is an elevation of parts of a sewing-machine, including the presser-foot thereof, and showing the latter as equipped with said attachment. Fig. 2 is a top plan view of the presser-foot with the attachment applied thereto, and Fig. 3 is a detail view of the attachment separated from the presser-foot.

Like characters indicate like parts throughout the several figures.

In the drawings I have shown a presser-foot at 2, a needle-bar at 3, and a needle at 4. These parts may be of any desired character. Those illustrated are of well-known construction.

The gathering attachment is denoted in a general way by 5, and it is represented as made in a single piece. It may be formed of spring-steel, sheet metal, or any other material having a certain amount of resiliency. Said part 5 comprises what might be considered an "upper branch," as 6, and a "lower branch," as 7, the latter being longer than the former and the two merging or uniting upon a curve of considerable radius. The upper branch 6 is curved to arch over the upper face of the presser-foot 2, while the lower branch 7 is curved to arch under the under surface of said presser-foot, although the curve of the lower branch 7 is not of as great a radius as that of the upper branch 6. The material of which the attachment 5 is made is not essential, although, as previously indicated, spring-steel or sheet metal may be utilized for this purpose. By virtue of the curvature of the attachment I obtain a certain amount of springiness therein and in this way secure adjustability and the firm gripping of a presser-foot by the attachment. The attachment is practically of spiral form, as will be understood. The free ends of the two branches 6 and 7 are squared off to bear solidly against the upper and lower surfaces, respectively, of the presser-foot, so as to prevent lateral motion of the attachment. The resiliency of the attachment is sufficient to prevent the same being accidentally separated from the presser-foot either lengthwise or sidewise thereof. The two branches of the attachment bear against the presser-foot



only at their inner terminals, and this I find  
 amply sufficient to hold the same in opera-  
 tive relation with the presser-foot. A user of  
 the attachment can in an instant slip the  
 5 same onto the presser-foot of a sewing-ma-  
 chine, and the separation of the attachment  
 from such presser-foot can be as readily ef-  
 fected. The device throughout is imperfor-  
 ate and is of integral construction. When  
 10 the device is on the presser-foot, both the up-  
 per and lower branches thereof extend short  
 of the needle, so as not to interfere in any  
 wise with the free operation of such imple-  
 ment.

15 In operation the attachment is mounted  
 on the presser-foot of a sewing-machine, as  
 hereinbefore described, and the goods to be  
 gathered are placed under said attachment  
 and presser-foot. The attachment then holds  
 20 the goods instead of the presser-foot, and the  
 feed-dog bears on the attachment and carries  
 the goods to the needle, while the tension of  
 the thread holds the goods until the feed-dog  
 makes another stroke, this operation being  
 25 continued until the work is finished. The  
 fullness of the gathering is determined by the  
 stroke of the feed-dog. The best results are  
 obtained when the tension of the thread is  
 tight, for in this relation the thread holds the  
 30 goods during the plait-forming operation.  
 The goods are doubled and are folded in the  
 space between the attachment and the needle

and are caught on the downward stroke of  
 the needle.

What I claim is—

1. An attachment of the class described 35  
 comprising an upper branch and a lower  
 branch, the latter being longer than the for-  
 mer, the upper branch being curved to arch  
 over the upper surface of a presser-foot and 40  
 the lower branch being curved to arch under  
 said presser-foot, and the inner ends of the  
 two branches being adapted to engage the  
 upper and lower surfaces, respectively, of  
 said presser-foot.

2. An attachment of the class described 45  
 comprising an upper branch and a lower  
 branch, the latter being longer than the for-  
 mer, the upper branch being curved to arch  
 over the upper surface of a presser-foot and 50  
 the lower branch being curved to arch under  
 said presser-foot, and the inner ends of the  
 two branches being adapted to engage the  
 upper and lower surfaces respectively of said  
 presser-foot, said attachment being of inte- 55  
 gral construction and the branches thereof  
 uniting upon a curve.

In testimony whereof I have hereunto set  
 my hand in presence of two subscribing wit-  
 nesses.

ENOCH H. BURRAGE.

Witnesses:

J. W. WHITAKER,  
 O. O. TESH.