

C. F. WURSTER.
 UMBRELLA RIB AND STRETCHER CONNECTION.
 APPLICATION FILED JULY 27, 1908.

907,433.

Patented Dec. 22, 1908.

Fig. 1.

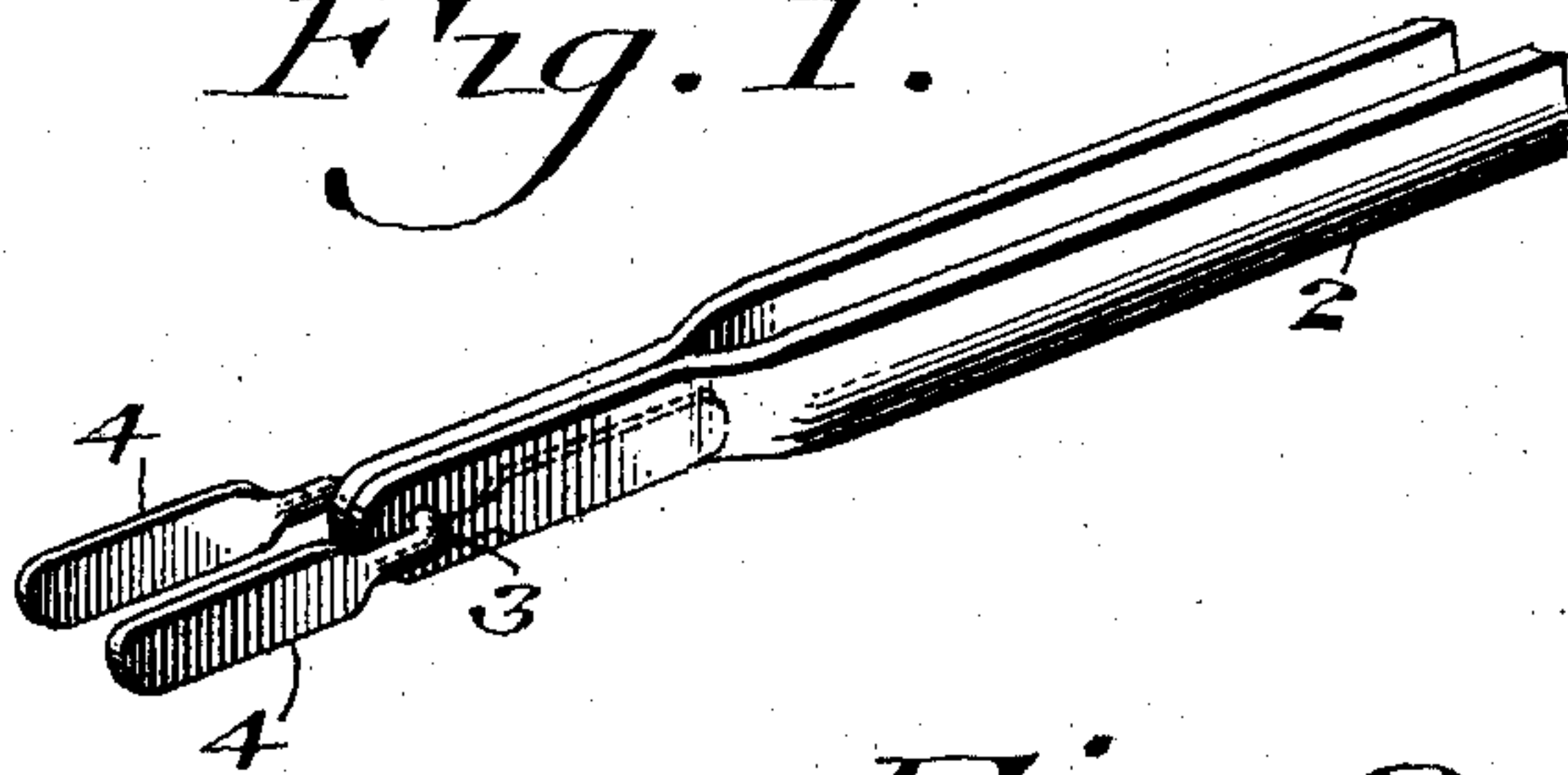


Fig. 2.

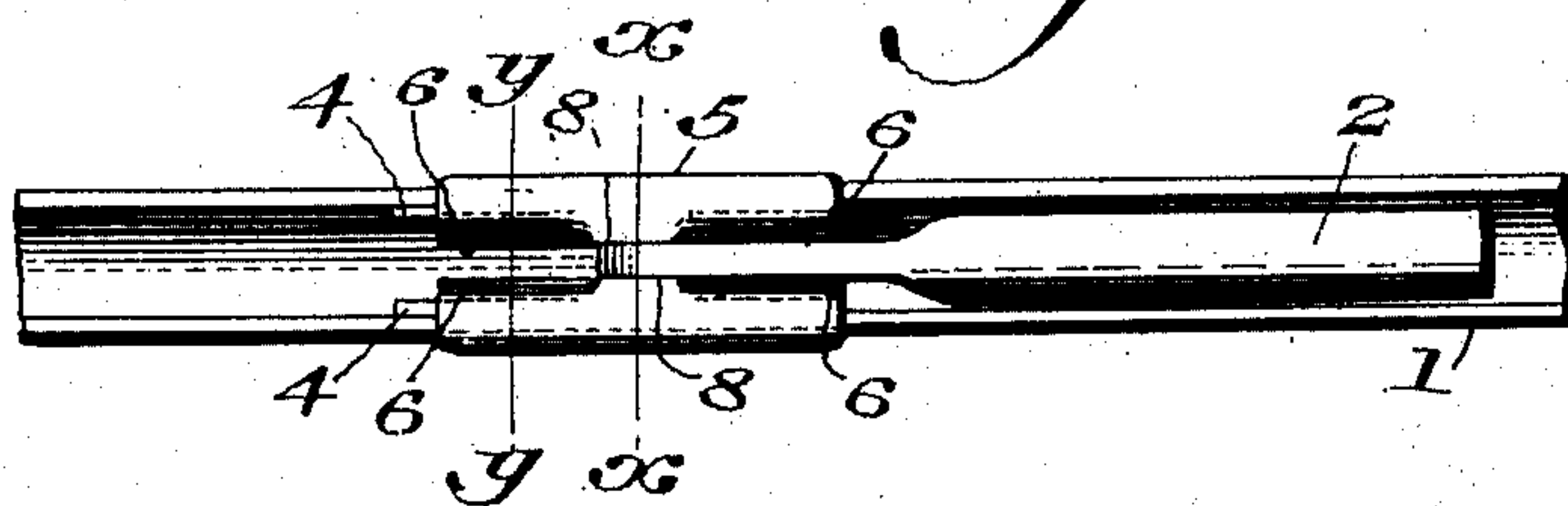


Fig. 3.

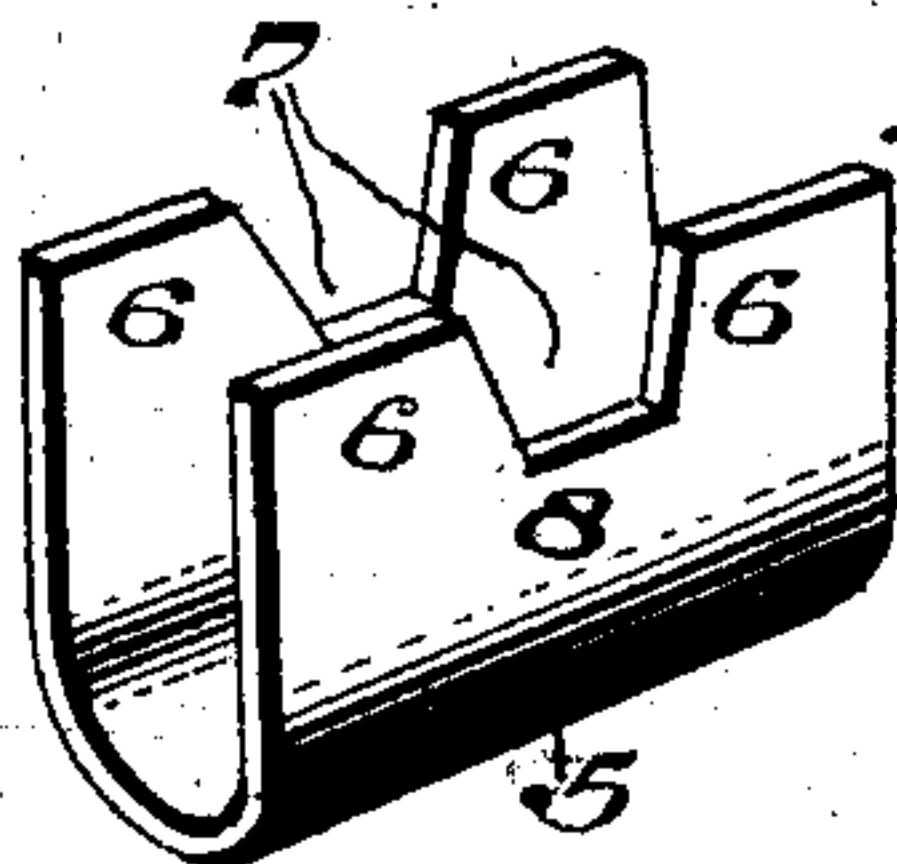
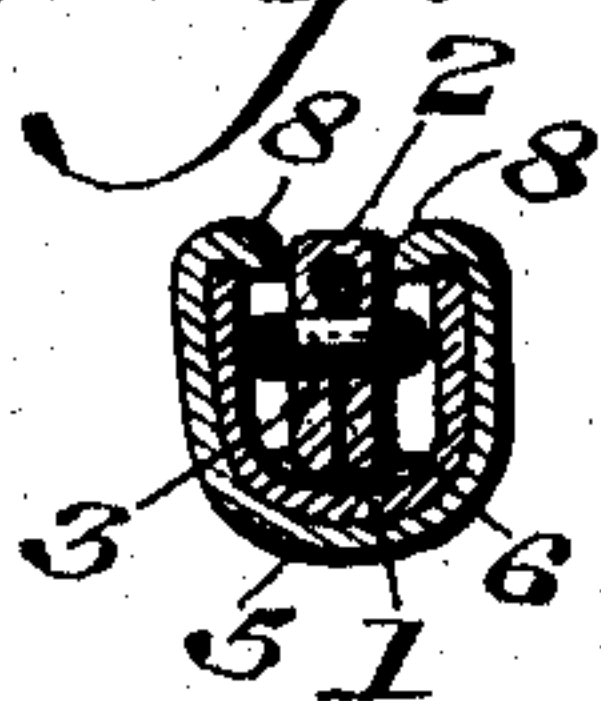


Fig. 5.

Fig. 6.



Fig. 7.

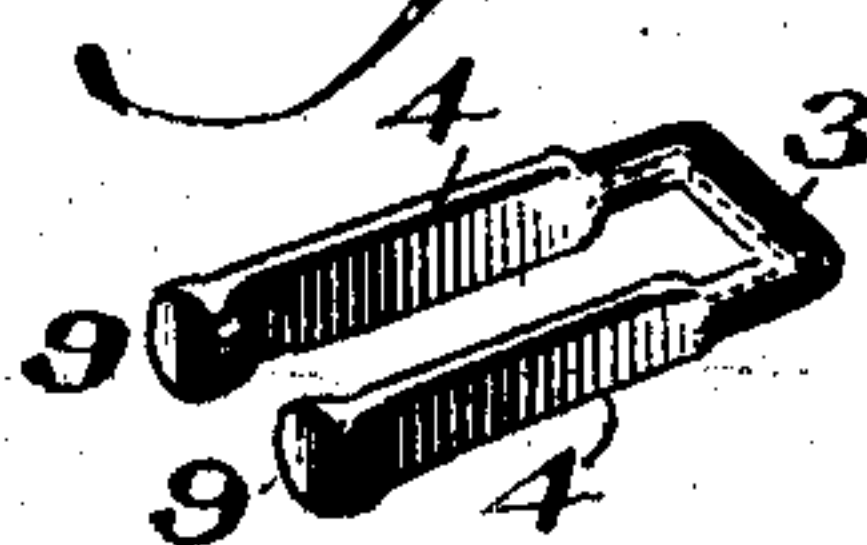
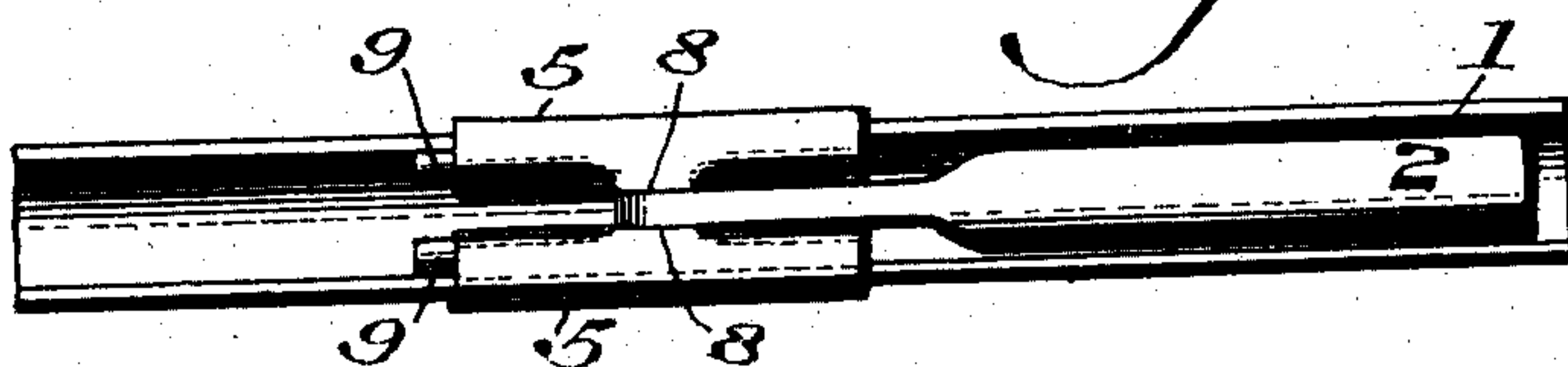


Fig. 8.



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UMBRELLA RIB AND STRETCHER CONNECTION.

No. 907,433.

Specification of Letters Patent.

Patented Dec. 22, 1908.

Application filed July 27, 1908. Serial No. 445,509.

To all whom it may concern:

Be it known that I, CHARLES F. WURSTER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Umbrella Rib and Stretcher Connection, of which the following is a specification.

My invention relates to a new and useful umbrella rib and stretcher connection and consists in forming extending ends integral with the pivot of the stretcher and means engaging with said ends for locking the same with respect to the rib.

It further consists in forming the ends flattened.

It further consists of other novel details of construction, all as will be hereinafter fully set forth.

Figure 1 represents a perspective view of a portion of a stretcher showing the pivot of the same with the extending ends. Fig. 2 represents a plan view of a portion of a rib and stretcher showing the same connected. Fig. 3 represents a sectional view on line $x-x$ Fig. 2. Fig. 4 represents a sectional view on line $y-y$ Fig. 2. Fig. 5 represents a perspective view of a geat which may be employed. Fig. 6 represents a plan of a portion of a rib and stretcher showing a different form of connection. Fig. 7 represents a perspective view of the pin and extending arms shown in Fig. 6.

It is essential in connecting umbrella ribs with the stretchers that the pivotal point be situated within the channel of the rib in such a manner as to permit the stretcher to be seated in the umbrella rib when the parts are in closed position.

My invention is designed to accomplish this result and in the drawings, I have shown a form which I have found in practice gives satisfactory and reliable results but it will be understood that the arrangement of the parts may be varied and other instrumentalities may be employed which will come within the scope of my invention and I do not therefore desire to be limited in every instance to the exact construction as herein shown and described but desire to make such changes as may be necessary.

I desire it understood that while I have shown and described my invention as applied to an umbrella the same may also be applied to parasols or other articles wherein

a stretcher or similar article is pivotally connected with a rib.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings. 1 designates a channeled rib of the usual construction and 2 designates a stretcher which is adapted to be seated in or occupy the channel of said rib 1 when the umbrella is in closed position.

3 designates a pin passing through the stretcher and provided with the ends or wings 4 which extend at an angle with respect to the pins and longitudinally with respect to the stretcher, it being understood more particularly from Fig. 1 that said ends or wings are flattened which can be done, after the pin is passed through the stretcher, in any desired manner without affecting the pin in its position in the stretcher, it being understood that in this manner, I construct integral extending ends on the pin and which ends and the pin are adapted to be seated in the channel of the rib.

In order to lock the parts in proper position, I employ a geat or body 5 consisting of a suitably shaped plate or strip of metal which is adapted to be passed around and closely engage the exterior of the rib 1 and which geat is provided with the extending arms 6. In the present instance the arms project from the four edges of the geat and form recesses or spaces 7, therebetween, on each side of the geat. In operative position the said arms 6 are bent inwardly and downwardly in the channel of the rib on each side of the pin 3 of the stretcher after the same has been placed in position and two of the arms 6 engage with the flattened ends or wings 4 of said pin so that the movement of the parts is prevented and the stretcher is pivotally connected in a firm and efficient manner with the rib, attention also being called to the fact that the said geat is so constructed that when the arms 6 are inturned, a portion of the wall as at 8, of the geat, is bent inwardly toward the stretcher and extends over the pivotal pin 3 and the edges of which portion 8 together with the arms 6 abut the adjacent portion of the stretcher and serve to guide the same in its movement causing the same to move properly at all times.

In the construction shown in Figs. 6 and 7, I connect the rib 1 and the stretcher 2 in a

similar manner to that described with respect to Figs. 1 and 2 excepting that I provide the free ends of the wings or sides 4 with lugs or stops 9, against which the walls of the
 5 geat 5 abut when the parts are in position, as best seen in Fig. 6, in order to assist in preventing any lateral movement of the parts.

From the above it will be understood that my invention is more particularly designed
 10 for use in close folding umbrellas where it is necessary in order that the stretcher will be seated within the rib, that the pivotal point of connection be situated in the channel of the rib, so that a smooth joint will result,
 15 which does not wear out the cover and which latter can be rolled up to the smallest diameter while the joint embodies sufficient strength for this purpose. Attention is also called to the fact that the rib is not pierced
 20 or weakened in any manner and yet the rib and stretcher constructions fold as small as possible. If desired the wings or plates 4 on the pin 3 may be connected with the rib 2 by the arm 6 of the geat 5 in a reverse position
 25 from that shown in Fig. 1, with the same results.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

30 1. An umbrella stretcher having a pin passing therethrough and wings on said pin integral therewith and constituting a longitudinal extension of the stretcher.

2. An umbrella stretcher having a pin
 35 passing therethrough, the ends of said pin being bent at an angle and extending longitudinally of said stretcher.

3. An umbrella stretcher having a pin passing therethrough, the ends of said pin
 40 being bent and flattened said pin constituting a longitudinal extension of the stretcher.

4. In a device of the character described, a stretcher, a pin passing through the same having bent ends, a channeled rib, and means
 45 intumed upon the sides of said rib and the bent ends of said pin, for locking the parts in position.

5. In a device of the character described, a channeled rib, a stretcher, a pin passing
 50 through said stretcher and having bent integral ends lying within the channel of said rib, and means engaging said rib and said integral ends for locking the parts in position.

6. In a device of the character described, a channeled rib, a stretcher, a pin pass- 55
 ing therethrough, flattened wings integral with said pin extending longitudinally of the stretcher and occupying the channel of said rib, and means engaging said rib and said wings for locking the parts in position. 60

7. In a device of the character described, a channeled rib, a stretcher, a pin passing through said stretcher, wings integral with said pin extending longitudinally of said
 65 stretcher and occupying the channel of said rib and means for holding the parts in position.

8. In a device of the character described, a channeled rib, a stretcher, a pin passing through said stretcher and having bent ex- 70
 tended ends, and a geat surrounding said rib and having intumed arms seated on opposite sides of said pin for holding the parts in position.

9. In a device of the character described, 75
 a channeled rib, a stretcher, a pin passing through said stretcher and having bent extended ends, and a geat surrounding said rib and having intumed arms seated on opposite sides of said pin and an arm on each side of 80
 the rib engaging with a bent end of the pin for locking the parts in position.

10. In a device of the character described, a channeled rib, a stretcher, a pin passing through said stretcher and having integral 85
 flattened ends extending at an angle and a geat surrounding said rib and having intumed arms seated on opposite sides of the pin and an arm on each side of the rib engaging with a flattened end of the pin, said 90
 arms, pin and flattened ends being located in the channel of the rib.

11. In a device of the character described, a channeled rib, a stretcher, a pin passing through said stretcher and having bent ex- 95
 tended ends lying within the channel of the rib, a geat surrounding said rib and having a portion thereof engaging said ends for locking the parts in position, and a portion of said geat abutting said stretcher on opposite sides 100
 adjacent the pivotal point thereof for guiding said stretcher in its movement.

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Witnesses:

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