

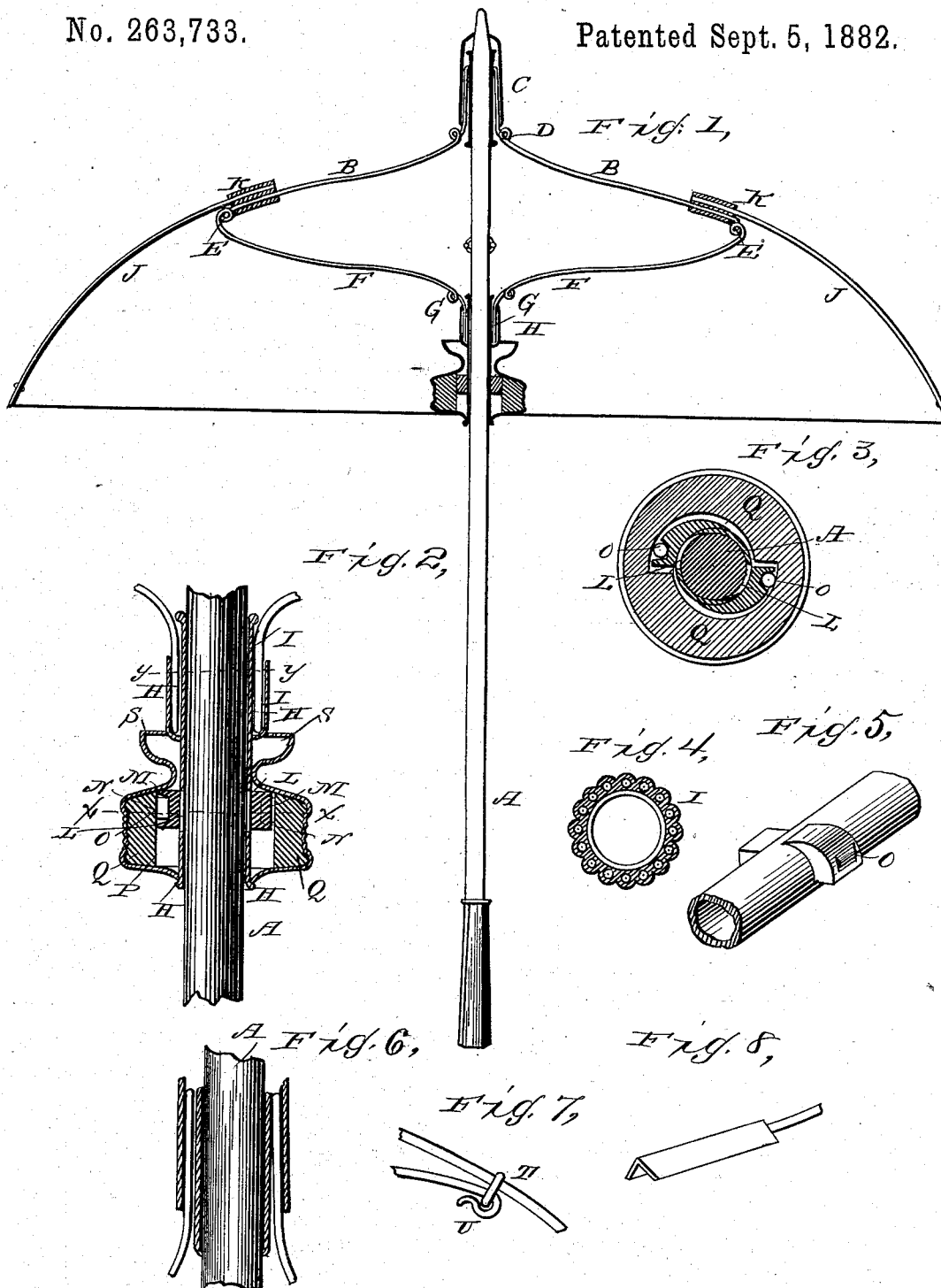
(No Model.)

C. B. SILL.

UMBRELLA.

No. 263,733.

Patented Sept. 5, 1882.



WITNESSES:

Med. L. Dietrich
Charles A. Baker

INVENTOR.

C. B. Sill
by C. A. Snow & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CYRUS B. SILL, OF YOUNGSTOWN, OHIO.

UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 263,733, dated September 5, 1882.

Application filed June 27, 1882. (No model.)

To all whom it may concern:

Be it known that I, CYRUS B. SILL, of Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Umbrellas; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to umbrellas; and it consists in certain improvements in the construction of the same, to be hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a vertical sectional view of my improved umbrella extended. Fig. 2 is a vertical sectional view, on a larger scale, of the brake or stop. Fig. 3 is a section on line *x x*, Fig. 2. Fig. 4 is a section on line *yy*, Fig. 2. Fig. 5 is a detail view of the clamping-sleeve; and Figs. 6, 7, and 8 are detail views, showing modifications.

Like letters refer to like parts in the several figures.

A represents the staff or handle, to which the ribs B are rigidly secured at the end by a sleeve or cap, C, or in any suitable manner. The ribs are made of strong but pliable and elastic wire, and provided, just below the cap C or point of attachment, with one or more coils or loops, D. These loops may, however, be omitted, as in Fig. 6, without changing my invention.

Upon the ribs B, at or near the center, are formed loops or coils E, from whence they are turned inward, so as to form the braces or stretchers F, the inner ends of which may be provided with coils G, before they are attached to the sleeve or runner H. This is done by means of a corrugated sleeve, I, (clearly shown in Fig. 4 of the drawings,) which in each of its grooves receives the end of one of the braces. Solder may be used to make the fastening secure. Wires J, forming the extensions or ends of the ribs B, are attached to the latter above the coils E by means of suitably-constructed sleeves, K, or in any other manner that may be deemed expedient.

The sleeve or runner I is provided on oppo-

site sides with slots L, at opposite ends of which are hinged eccentric wings or cams M, which may be of india-rubber or other suitable material, and provided in their outer sides or faces, near the ends, with recesses N, in which friction-rollers O are journaled. The part of sleeve I having the cams M is inclosed by a shell, P, containing a block or cushion, Q, having recesses R to accommodate said cams. The upper end of the shell P may be provided or formed with a cup, S, to receive the ends of the ribs when the umbrella is folded.

The operation of folding or extending the umbrella will be readily understood from the foregoing specification, taken in connection with the drawings hereto annexed. To secure it when either extended or folded it is only necessary to turn the shell P slightly, thus causing the cams M to press, through the slots L, upon the staff or handle, thus retaining the sleeve in position upon the staff by the friction resulting from such pressure, without the use of stops or catches, such as are ordinarily employed.

When desired the ribs may be made in a single continuous piece, as shown in Fig. 7, and provided each with a suitably-located eye, T, to receive a hook, U, formed at the outer end of the corresponding brace or stretcher. The ribs may also, for the purpose of rendering them stronger and more rigid, be constructed wholly or partly of Λ -shaped metal, as shown in Fig. 8.

My improved umbrella is simple in construction, strong, durable, easily manipulated, and, owing to the peculiar method of securing the ribs to the staff, it has a peculiar tapering curved shape when extended, which is at once graceful and useful in causing it to shed water readily.

I claim and desire to secure by Letters Patent—

1. In an umbrella, the elastic ribs secured rigidly to the staff, and bent inward at about the middle, so as to form the braces or stretchers, as set forth.

2. In an umbrella, the elastic ribs, bent at about the middle, and having their ends secured rigidly to the staff and to the sleeve or runner, respectively.

3. In an umbrella, the elastic ribs secured

rigidly to the staff, coiled at about the middle, and bent from thence inwardly and secured rigidly to the sleeve or runner.

4. In an umbrella, the elastic ribs secured
5 rigidly to the staff, coiled at about the middle, bent inwardly, so as to form the braces, the ends being secured to the sleeve or runner, and having extensions forming the ends of the ribs, attached rigidly thereto above the bent and
10 coiled portion.

5. In an umbrella, the sleeve or runner having slots provided with hinged eccentric cams, inclosed by a revolving shell having a block or cushion provided with recesses to accommo-
15 date said cams.

6. The combination of the slotted sleeve, the

hinged cams having friction-rollers, and mechanism for forcing said cams against the staff or handle.

7. The combination, with the runner, of the 20 clamping-shell having one end formed or provided with a cup to receive the ends or tips of the ribs.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 25 presence of two witnesses.

CYRUS B. SILL.

Witnesses:

JAMES KENNEDY,
GEO. C. HULCY.