

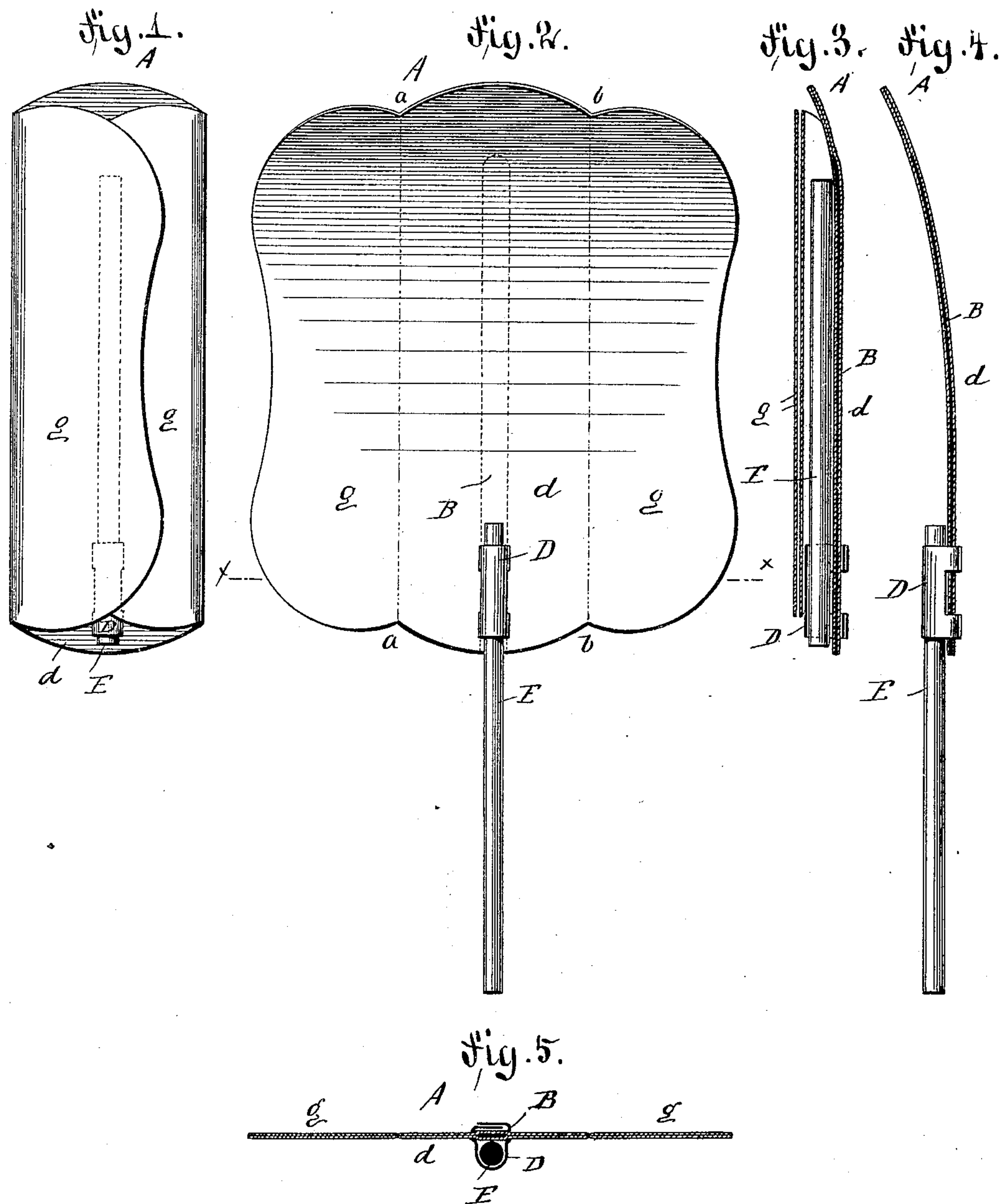
(No Model.)

F. STERNHEIMER.

FOLDING FAN.

No. 398,092.

Patented Feb. 19, 1889.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

FRIEDMAN STERNHEIMER, OF NEW YORK, N. Y.

## FOLDING FAN.

SPECIFICATION forming part of Letters Patent No. 398,092, dated February 19, 1889.

Application filed March 29, 1888. Serial No. 268,856. (No model.)

*To all whom it may concern:*

Be it known that I, FRIEDMAN STERNHEIMER, of the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Folding Fans, of which the following is a specification.

This invention relates to improvements in that class of fans which can be folded compactly when not in use, so as to permit of their being carried conveniently in the pocket, &c.

The object of my invention is to provide a new and improved folding fan which is simple in construction and cheap, and which, when extended or opened for use, is stiff and does not bend or collapse while being used for producing currents of air.

The invention consists of a sheet, a handle on the same, and a spring-strip secured on the sheet and extending over the same in the direction of the handle.

The invention further consists in the combination, with a sheet creased or jointed to fold, of a spring-strip secured longitudinally on the central section of said sheet, and a handle on said central section.

The invention also consists in the construction and combination of parts and details, as will be fully described and set forth hereinafter, and then pointed out in the claims.

In the accompanying drawings, Figure 1 is a face view of my improved folding fan folded. Fig. 2 is a face view of the same opened for use. Fig. 3 is a vertical transverse section of the fan folded. Fig. 4 is a vertical transverse section of the same opened; and Fig. 5 is a horizontal sectional view of the same on the line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The sheet A, of strong and stiff paper—such, for instance, as Manila packing-paper—is cut or punched out according to any desired design, and is creased on the lines *a a* and *b b* from top to bottom, and is thus divided into the central section, *d*, and the two side sections, *g*, which can be folded over the

central section. A spring-strip, B, is inserted in the middle of the central section, *d*, and extends from the bottom up to near the top. Said spring may be made of steel, rattan, hard rubber, or any other suitable material, steel being preferred. If desired, said spring-strip can be secured on one of the faces of the central section, instead of between the two faces. A socket, D, for receiving the removable handle E, is secured to the central section, *d*, at the bottom. The spring B is slightly curved, as shown. When the handle E is pushed up to extend longitudinally over the central section, *d*, as shown in Figs. 1 and 3, it to a certain extent straightens the spring, whereby the sheet A is also straightened, and the two side sections, *g*, can be folded over the central section, *d*. The fan now occupies very little space and the handle does not project from the same, and the fan can be carried very conveniently in a coat-pocket. When the fan is to be used, the side sections, *g*, are swung from the central section, *d*, and the handle E is pulled down, thus permitting the spring B to curve the sheet A, as shown in Fig. 4. When the sheet A is curved, the force of the air-currents produced by swinging the fan is not sufficient to fold the wing-sections on the central section, and thus said spring serves to keep the fan open.

The advantages of my improved fan are that no backing or frame is used for the sheet forming the body of the fan, the handle does not project when the fan is folded, and the fan is simple in construction and cheap.

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

1. In a fan, the combination, with a sheet creased or jointed longitudinally, of a handle-socket on the said sheet and a sliding handle in said socket, substantially as herein shown and described.

2. In a fan, the combination, with a sheet creased or jointed to fold, of a spring mounted longitudinally on the central section of the sheet, a socket held longitudinally on the central section of the sheet, and a sliding handle in said socket mounted to slide longi-



tudinally over the central section of the folding sheet, substantially as herein shown and described.

3. In a fan, the combination, with a sheet,  
5 of a handle secured on said sheet, and a spring-strip secured longitudinally on said sheet, substantially as herein shown and described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

F. STERNHEIMER.

Witnesses:

OSCAR F. GUNZ,  
JOHN A. STRALEY.