No. 792,737. PATENTED JUNE 20, 1905.

C. SMITH.

SEAMLESS COVER FOR UMBRELLAS.

APPLICATION FILED AUG. 6, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

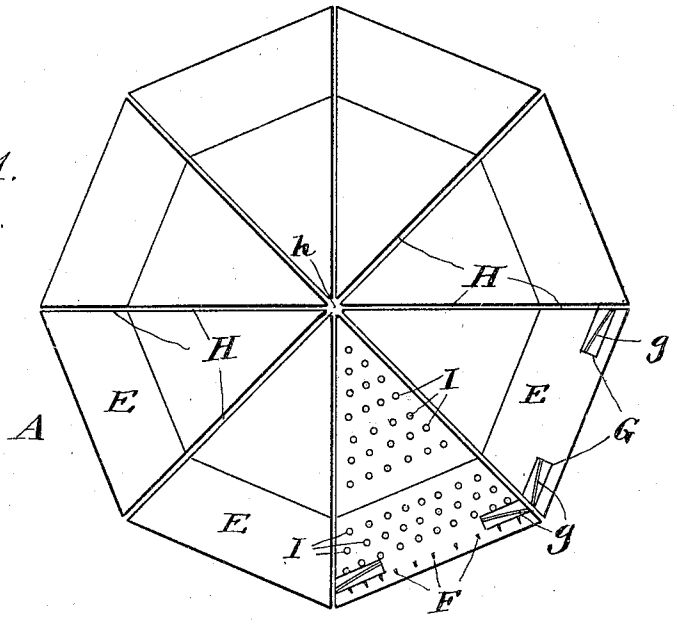


Fig. 2.

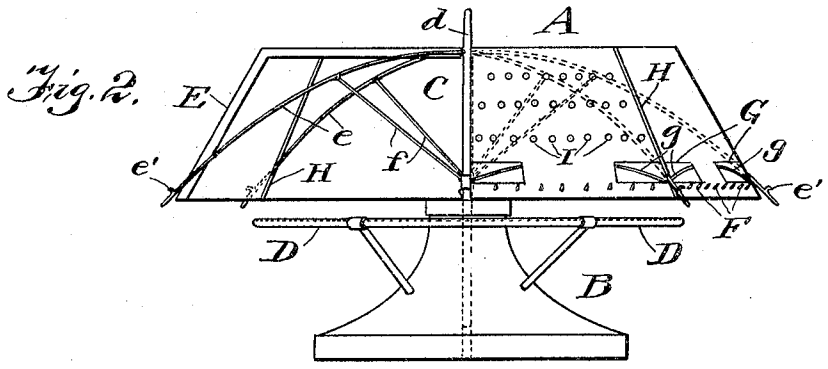
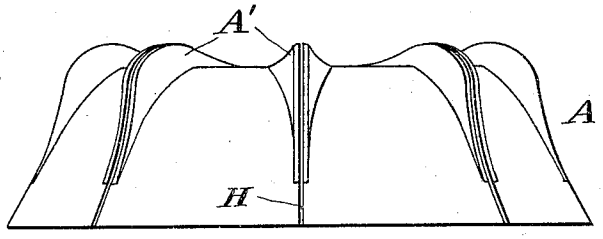


Fig. 3.



WITNESSES:

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INVENTOR

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2 SHEETS—SHEET 2.

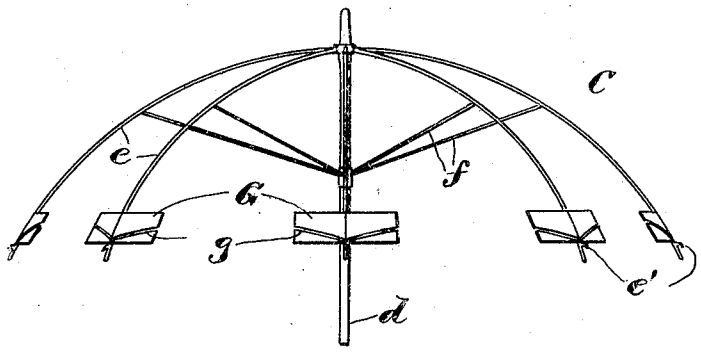


Fig. 4.

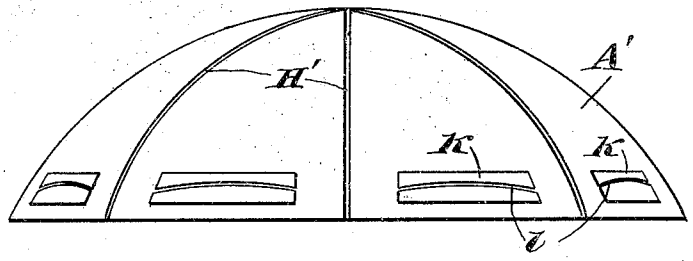


Fig. 5.

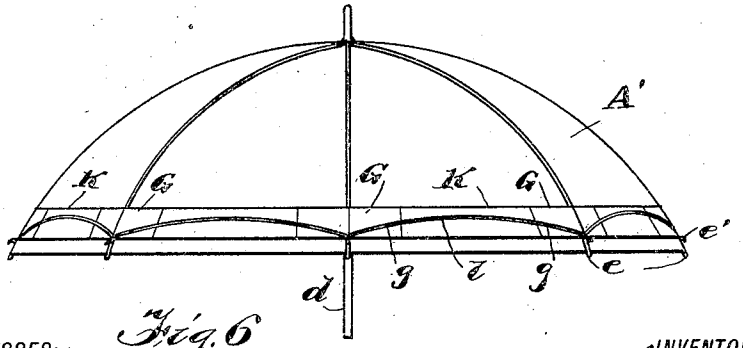


Fig. 6

WITNESSES:

Henry A Clarke

Joseph Naughton

INVENTOR

Conklin Smith

No. 792,737. Patented June 20, 1905.

UNITED STATES PATENT OFFICE.

CONKLIN SMITH, OF NEW YORK, N. Y.

SEAMLESS COVER FOR UMBRELLAS.

SPECIFICATION forming part of Letters Patent No. 792,737, dated June 20, 1905.

Application filed August 6, 1904. Serial No. 219,791.

To all whom it may concern:

Be it known that I, CONKLIN SMITH, a citizen of the United States, residing in New York, borough of Manhattan, and State of New York, have invented certain new and useful Improvements in Machines for Forming Seamless Covers for Umbrellas and Parasols, of which the following is a specification.

My invention relates to machines for making umbrella-covers without seams, and has for its object to provide a novel and inexpensive method of forming a cover for umbrellas or parasols from a single piece of fabric.

A further object is to provide means whereby covers for umbrellas and parasols may be formed from a single piece of fabric free from wrinkles; and another object to be attained is the means of forming a cover that may be rolled more closely to the frame of an umbrella or parasol than is possible by the present method of manufacture.

These being the main ends to be achieved, my invention consists of certain features of construction and combinations of parts to be hereinafter described and then claimed.

In the accompanying drawings, Figure 1 is a top plan view of an umbrella-machine embodying my invention, showing one of the forms for shaping the umbrella-cover. Fig. 2 is a view in elevation, a portion of the form being removed, showing the service-frame. Fig. 3 is an elevation view of another form to be used in shaping the seamless covers.

Referring to the drawings, A represents the form over which the fabric to be used for the umbrella-cover is stretched. B is the base of the machine, upon which the form A is movably mounted. C is the service-frame, and D is an annular perforated pipe through which steam is allowed to escape for the purpose of moistening the fabric.

The form A is octagonal in the drawings; but in practice the number of sides would equal the number of gores or sections in the umbrella to be covered. Each of the sides E incline or converge toward the top and has near the bottom edge a row of points or pins F, to which the fabric is made fast. At the intersection of the sides and near the bottom of each is secured a plate G, having therein a curved slot *g*. Across the flat top of form A and down the sides are channels H, and in the center of the flat top of the form where these channels cross is an aperture *h*.

The top and sides of the form A are perforated, as indicated at I. The service-frame resembles an ordinary umbrella-frame and is composed of a staff *d*, ribs *e*, and braces *f*. Near the ends of the ribs *e* are formed hooks *e'*, over which the fabric is fastened.

In operating the machine the service-frame is first opened and the staff *d* is placed in the aperture *h* and the ribs *e* are dropped into the channels H of the form A. The fabric is then stretched over the form A and made fast to the points F and the hooks *e'*. The steam is then allowed to escape from the perforations in the pipe D, and as it rises on the inside of the form A it percolates through the perforations I and moistens the fabric sufficiently to enable the operator to shape it over the form A. It is sometimes found desirable to give a greater swell or bow to the umbrella-cover, and to accomplish this I provide supplemental forms A' on either side of the channels H, as shown in Fig. 3. In all other respects the form is the same as shown in Figs. 1 and 2.

The service-frame C is not the permanent frame of the umbrella. It is used only while the fabric of the cover is being stretched. The cover is removed from the frame C after it has been properly formed, and it is then attached to its permanent frame.

The foregoing is an accurate description of my invention in its most practicable form; but I do not wish to be limited to the exact construction herein described, as slight changes may be made without departing from the spirit of my invention.

What I claim as new and of my own invention is—

1. In a machine for making seamless covers for umbrellas, the combination of a perforated form having a flat surface with inclined sides, having channels radiating from the center thereof, means for securing fabric at the

lower edge thereof, and slotted plates at the angles of the sides thereof substantially as shown.

2. In a machine for making seamless covers for umbrellas and parasols, the combination of a perforated form having a flat surface and inclined sides with bowed ribs formed at the angles thereof through which channels are cut, radiating from the center of the form, means for securing fabric near the lower edge thereof, plates with curved slots at the angle of the sides thereof substantially as shown and for the purpose set forth.

3. In a machine for making seamless covers for umbrellas and parasols, the combination of a service-frame having a staff, ribs with barbs or hooks on the ends thereof and brace-rods for holding the ribs in place substantially as shown.

Signed at New York, N. Y., this 4th day of August, 1904.

CONKLIN SMITH.

Witnesses:
HENRY A. CLARKE,
JOSEPH NAUGHTON.