

(No Model.)

G. W. HARMER.
STORM PROTECTOR.

No. 586,998.

Patented July 27, 1897.

Fig. 1.

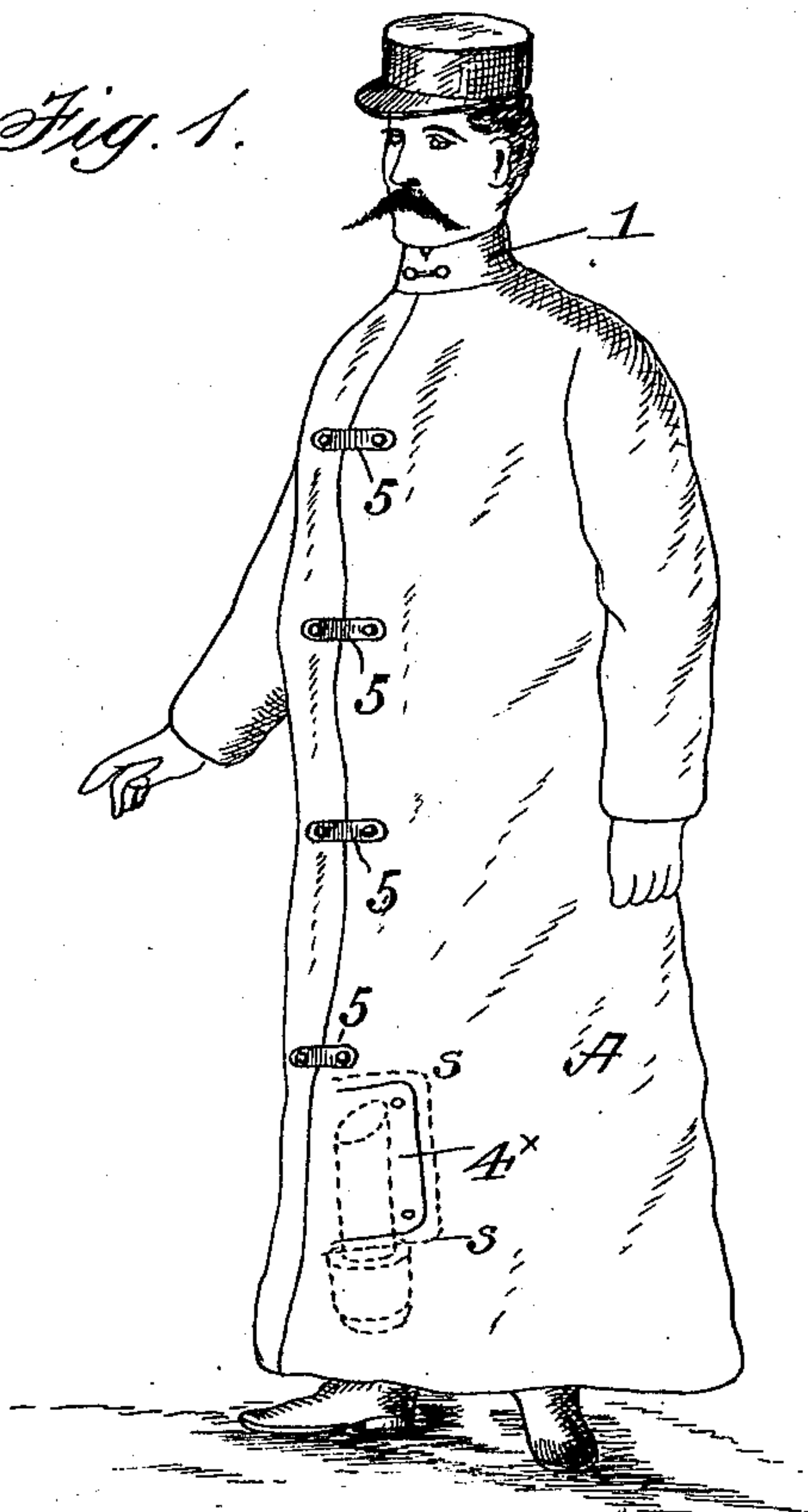


Fig. 2.

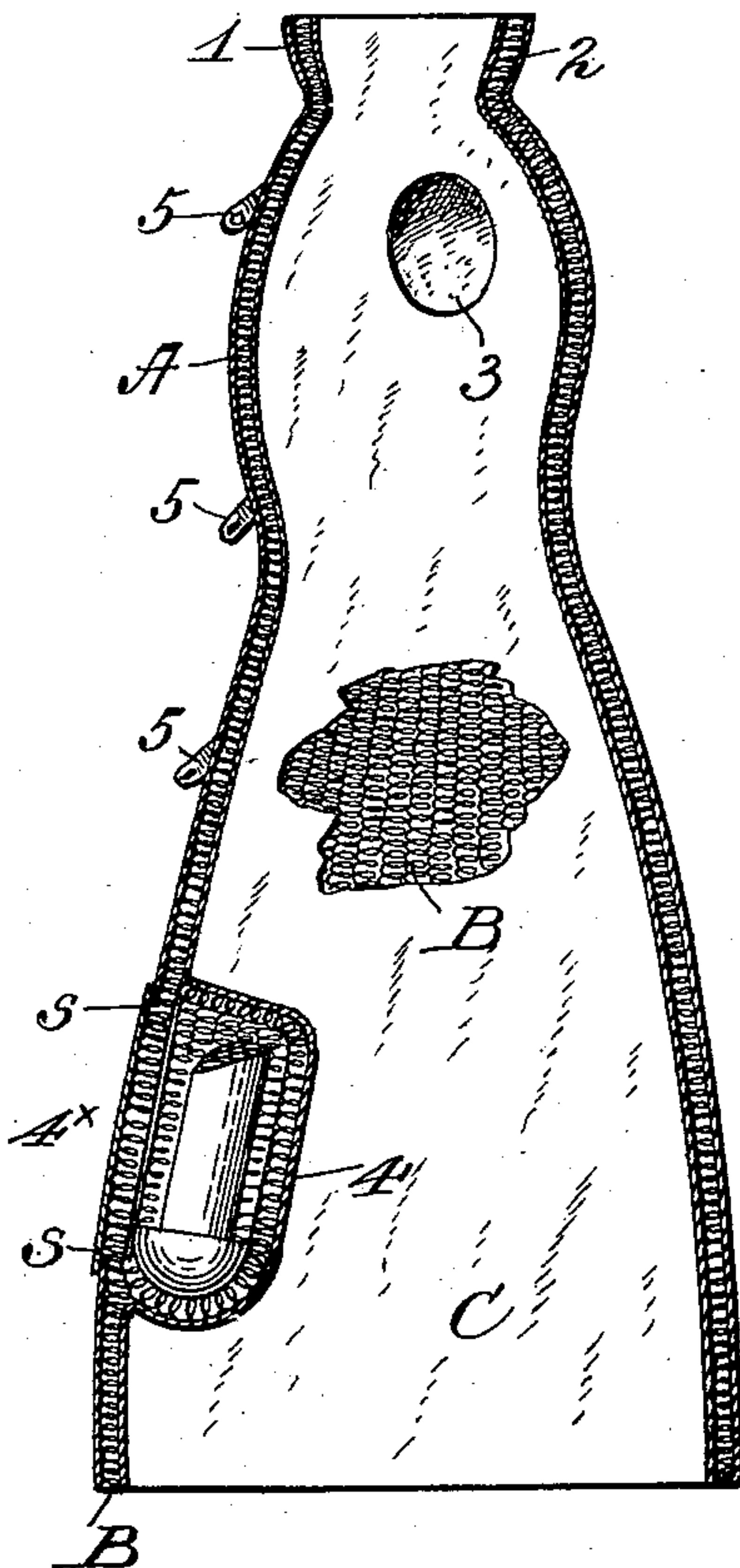
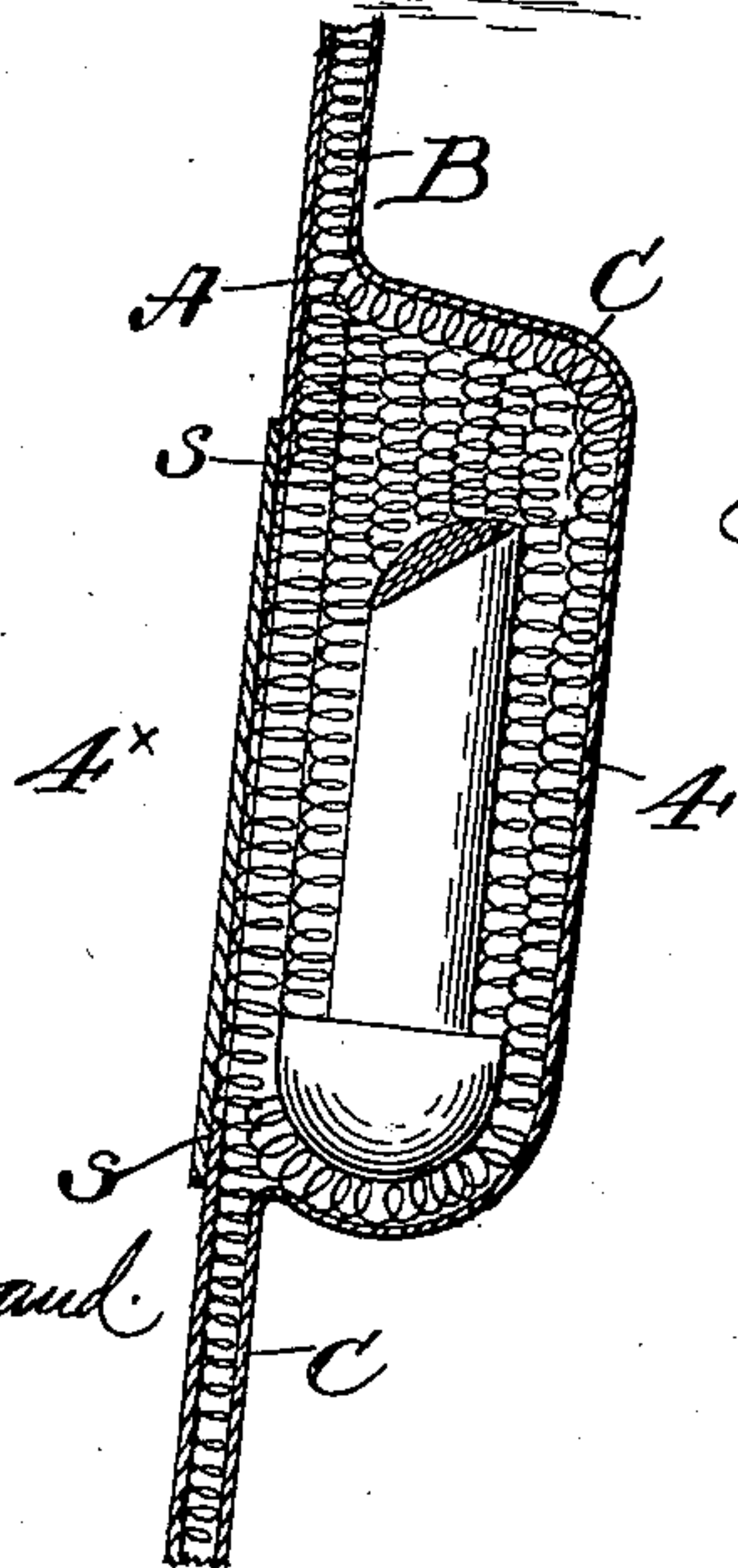


Fig. 3.



Witnesses
Frank L. Orvand.
George J. Weber.

Inventor
Geo. W. Harmer
by A. G. Keylman
Attorney

UNITED STATES PATENT OFFICE.

GEORGE W. HARMER, OF PLEASANTVILLE, NEW JERSEY, ASSIGNOR TO
PETER B. RISLEY, OF SAME PLACE.

STORM-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 586,998, dated July 27, 1897.

Application filed October 9, 1896. Serial No. 608,367. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. HARMER, a citizen of the United States of America, residing at Pleasantville, in the county of Atlantic, in the State of New Jersey, have invented certain new and useful Improvements in Storm-Protectors, of which the following is a specification.

My invention has relation to new and useful improvements in storm-protectors, whereby persons exposed to the inclemency of the weather may be made and kept comfortable, and the object is to provide improved and simplified constructions of the kind named and for the purpose intended, and especially to improve the construction of the device shown and described in my earlier Letters Patent No. 554,121, dated February 4, 1896, for a storm-protector. In this cited patent I provide a garment consisting of a short waist-jacket of wire-netting for maintaining a space between the protector and the body of the wearer. This construction and arrangement of elements attain the purpose or object with reasonable certainty; but in order that the whole person may be thoroughly and effectually warmed, and that the heating apparatus carried by the garment may be safe, simple, and harmless, I have devised the improvements hereinafter described, and the novelty of which I have particularly pointed out in the claims.

I have fully and clearly illustrated the improvements in the accompanying drawings, wherein—

Figure 1 is a perspective of the complete device as arranged on the body of a wearer, the location of the fuel-pocket being shown in dotted lines. Fig. 2 is a vertical section through the garment, showing also the fuel-pocket with a fuel-cartridge disposed therein. Fig. 3 is a vertical central section through the fuel-pocket, on an enlarged scale, with a fuel-cartridge lodged therein.

A designates the outer covering, made of such pattern and size as to completely envelop the body and limbs of the person and provided with roomy sleeves and a standing collar 1, surrounding the throat and neck, substantially as shown in Fig. 1 of the drawings. This outer covering may be made of

the usual oil-cloth or any other waterproof material suited to the purpose.

B designates an intermediately-disposed wire fabric. This woven-wire fabric is fitted to the inner surface of the outer covering and is made of the general outline and contour of the body at the upper or breast portion and gradually enlarging to the bottom or base, being made so that it will aline with and properly fit the inner shape of the outer covering A and so that it will form a circulating space and medium for the heated air between the outer covering and the inner textile lining. This wire fabric is formed with a standing collar portion 2, made substantially of the same height as the collar 1, which surrounds it, and is formed with armholes 3, and a fuel-pocket 4, made of the woven wire, is formed at a suitable point and attached to the main fabric, wherein a fuel case or cartridge is deposited and held. This woven-wire fabric is secured to the inner face of the outer covering by any suitable means, such as by knot-stitching it thereto in any well-known manner.

C designates the lining laid on and suitably secured to the inner face of the woven-wire fabric. This lining C may be of "duck-cloth" or similar material suitable for the purpose.

The whole garment is made open at the front and the opening parts detachably secured by links or straps and buttons, as indicated at 5.

It will thus be perceived that I provide a protecting-garment composed of an outer impervious cloth or textile material, an innermost facing or lining of textile material, and an intermediate woven-wire fabric separating the covering and lining and constituting a hot-air-circulating means between them.

The intermediate woven-wire fabric B is composed of spirals of wire woven together in the well-known manner, the spirals being of such diameter as to make a fabric thick enough to insure a free circulation of the air throughout the garment between the outer covering and the inner lining, so as to impart heat by radiation or percolation through the lining to the body of the wearer.

The fuel-cartridge pocket is made accessi-

ble from the outside by a flap or opening 4^x,
made in the outer material and a section of
the wire material, as indicated at the lines
s s in Fig. 3 and dotted lines in Fig. 1.

5 The united parts are left open at the bot-
tom edge to admit air to rise up through the
meshes of the netting.

The use of my protector is as follows: A
fuel-cartridge is ignited and placed in the
10 pocket made to receive and hold it, and af-
ter the cartridge has been so deposited the
protecting-garment is donned by the party
and, as seen in the drawings, the body is en-
veloped, and the result is that the body is
15 completely protected and speedily warmed
and kept so.

My invention is especially adapted for use
by motormen, watchmen, wheelmen on ships,
and pilots, or any other person whose duties
20 expose them to the bad weather.

Having thus described my invention, what
I claim, and desire to secure by Letters Pat-
ent, is—

1. A storm-protector, composed of an outer

waterproof covering, an inner textile lining, 25
and a woven-wire fabric separating the cov-
ering and lining and so arranged and formed
as to provide a circulation of air between the
covering and the lining.

2. A storm-protector composed of an outer 30
waterproof covering, an inner textile lining,
an intermediate woven-wire fabric separat-
ing the covering and the lining, and a fuel-
pocket formed in the woven-wire fabric.

3. A storm-protector, comprising an outer 35
waterproof covering, an inner textile lining,
an intermediate woven-wire fabric separat-
ing the covering and the lining and composed
of interwoven spiral wires, and a fuel-pocket
in the garment made of woven spiral wires. 40

In witness whereof I have hereto set my
hand in the presence of two attesting wit-
nesses.

GEORGE W. HARMER.

Attest:

CARLTON GODFREY,
S. L. DENNEY.