

(No Model.)

I. B. KLEINERT.

COMBINED NECK AND EAR PROTECTOR.

No. 322,614.

Patented July 21, 1885.

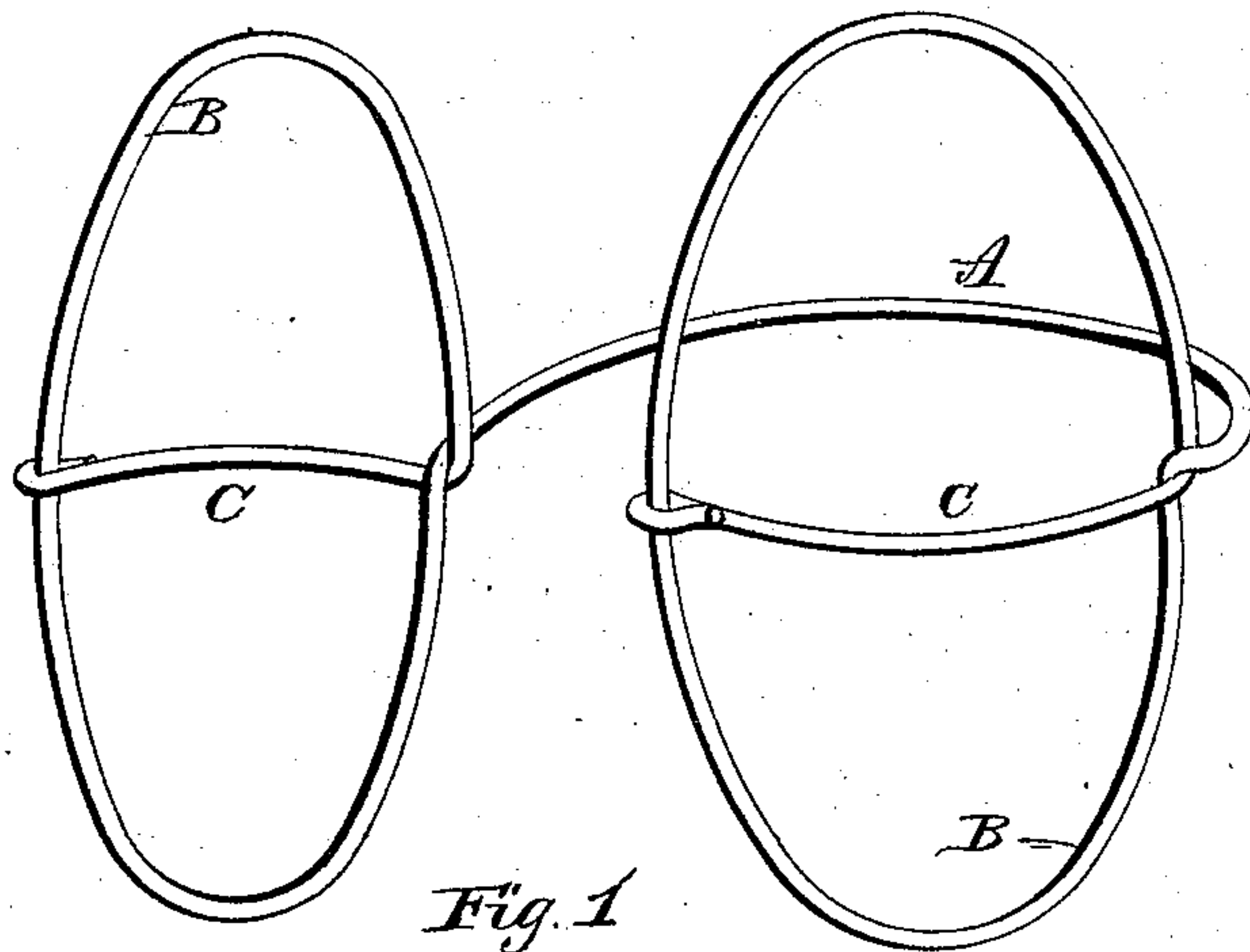


Fig. 1

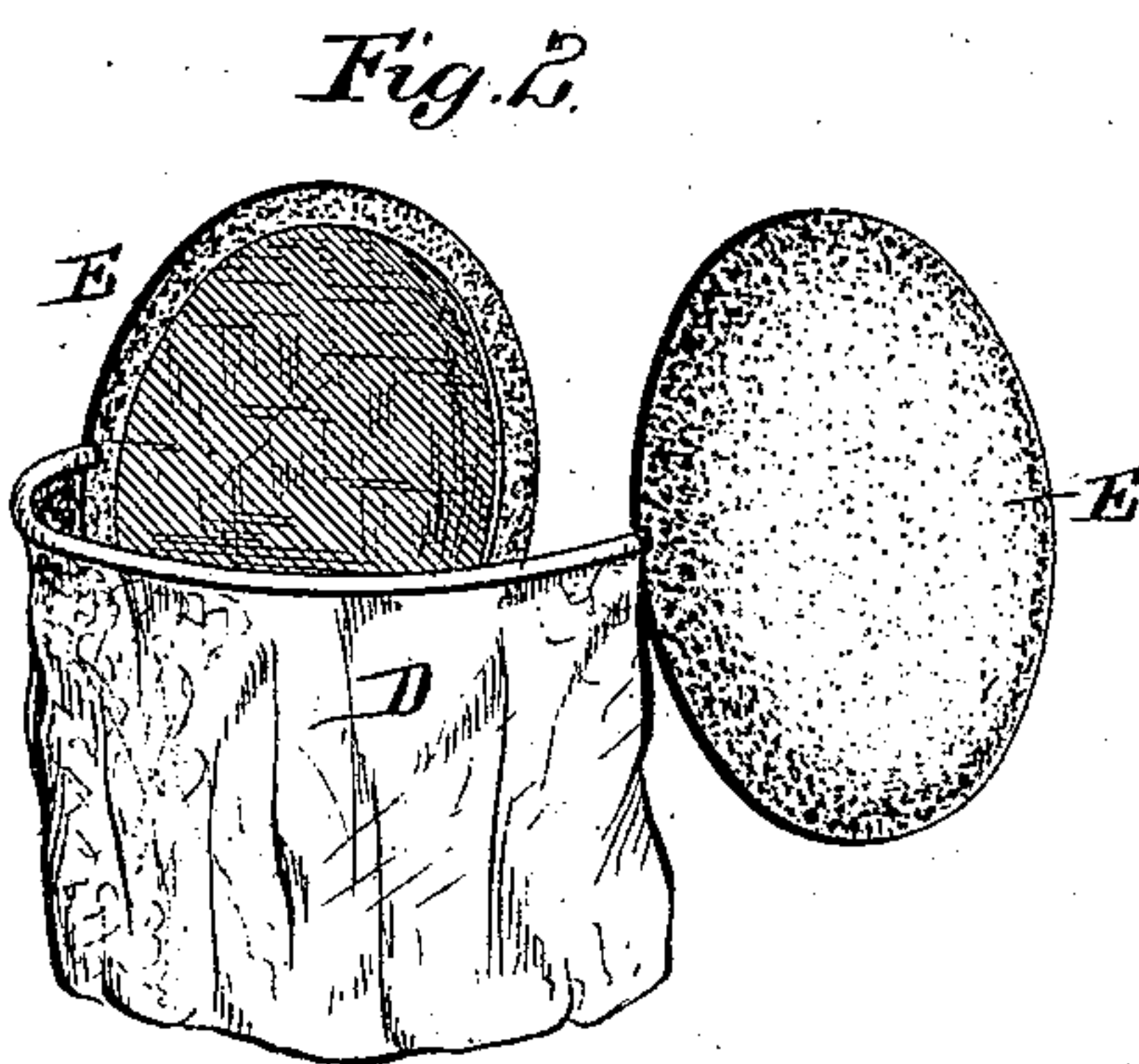


Fig. 2

WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## COMBINED NECK AND EAR PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 322,614, dated July 21, 1885.

Application filed April 21, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC B. KLEINERT, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Combined Ear and Neck Protectors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in combined ear and neck protectors.

In traveling before a cold wind or with the wind at any point back of a right line to the course of travel, the back of the neck and the portions beneath the ears are exposed, and as these parts of the body are tender and easily chilled it becomes a matter of health and even of life to protect them. The turning-up of the coat collar, and the use of fur and woolen capes are some of the more common means resorted to for protecting these tender parts; but both have a tendency to overheat the neck, causing perspiration and an increased liability to take cold upon the slightest exposure, while the use of the coat-collar has the minor objectionable feature of becoming soiled thereby.

The object of my present invention is to provide an ear-protector frame of improved construction, and to further make use of the spring-bow which holds the ear-pads in position as a support for a neck-protector; and with these ends in view my invention consists in a pair of ear-pad frames connected by a spring-bow, the bow and frames being formed of a single piece of spring metal.

My invention further consists in a cape or flap suspended from the bow, which connects a pair of ear-pad frames.

My invention further consists in certain features of construction and combinations of parts as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of the ear-pad frames and spring-bow connecting the same, and Fig. 2 shows the neck-cape and ear-pads in position on the bow and frames.

A represents the bow. It consists of a piece of spring metal, preferably wire, curved to conform to the back of the head, and bent at each end to form an oval-shaped loop, B, and

after interlocking with itself at the point where it turns to form the loop, extends across the loop and is attached to the rim forming the curved cross-brace C. The form and construction of the loop B and cross-brace C are quite similar to those shown and described in my application for Letters Patent entitled "Improvement in Ear-Protectors," filed April 18, 1885, and is not claimed in the present application except so far as it forms a part of the improved combination of bow and frames.

The cape D may be removably or permanently secured to the bow A, as may be found desirable. It consists of fur or any soft fabric which may be suited to the purpose, and may extend downwardly just far enough to shield the neck or may extend well down onto the shoulders.

My preferred construction, however, is to cover the spring-bow with some soft fabric, and have the cape constructed in such a manner that it may be attached and removed at pleasure, thus enabling the wearer to dispense with the cape whenever he may desire to do so, and still leave the wire covered so that it will not feel cold to the head.

E represents the ear-pads secured on the frames and adapted to partially receive the top of the ear, as explained in the application above referred to.

I am aware that ear-muffler frames have been made of three parts, the pad-frames being made of wire having perforated plates soldered thereto, to which are secured the opposite ends of a bow for retaining the article in place. An ear-muffler frame thus constructed is defective and objectionable in its construction owing to the fact that it is difficult to solder the perforated plates to the wire pad-frame owing to the limited amount of metallic surface exposed for the attachment of the solder. Again, in soldering such perforated plates onto the wires, the heat incurred in such operation draws the temper of the wire and anneals and softens it, thereby destroying its stiffness at the points soldered. Again, by the continued use of the article and adjusting it to fit the wearer, the solder is liable to become detached from the frame and thereby render the article useless. In my improvement these objectionable features are obviated by making the ear-pad frame and the



bow of a single piece of spring metal, the ear-  
pad frame being formed from the opposite  
ends of the bow and hence made integral there-  
with. By this method of manufacture several  
5 important and valuable results are insured.  
In the first place, the cost of manufacture is re-  
duced, as I obviate the necessity for the skilled  
labor required in soldering and also dispense  
with perforated plates or ears for fastening  
10 the parts together. Again, by having the ear-  
pads and bows made of a single piece of spring  
metal the frame is rendered very durable, be-  
ing of uniform strength throughout every por-  
tion thereof, and may be adjusted by slightly  
15 bending the bow to insure any desired spring  
tension of the ear-pads without danger of  
breaking the bow or its connection with the  
ear-pads, and, further, by forming the ear-pad  
frames from the opposite ends of the bow, they  
20 can be readily made of any size desired.

Having fully described my invention, what  
I claim as new, and desire to secure by Let-  
ters Patent, is—

1. A frame for ear-mufflers, consisting of a  
bow portion, and ear-pad frames bent into 25  
form from its opposite ends, the bow and ear-  
pad frames being made of a single piece of  
spring metal, substantially as set forth.

2. The combination, with a pair of ear-pads  
connected by a spring-bow, of a neck-cape sus- 30  
pended from the bow, substantially as set  
forth.

3. The combination, with a pair of ear-pads  
connected by a spring-bow provided with a  
soft covering, of a neck-cape removably at- 35  
tached to the bow, substantially as set forth.

In testimony whereof I have signed this  
specification in the presence of two subscrib-  
ing witnesses.

ISAAC B. KLEINERT.

Witnesses:

JULIUS JANOWITZ,  
E. C. SEWARD.