No. 785,503. PATENTED MAR. 21, 1905.

G. KRIEGER.

LIFE SAVING APPLIANCE.

APPLICATION FILED AUG. 4, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

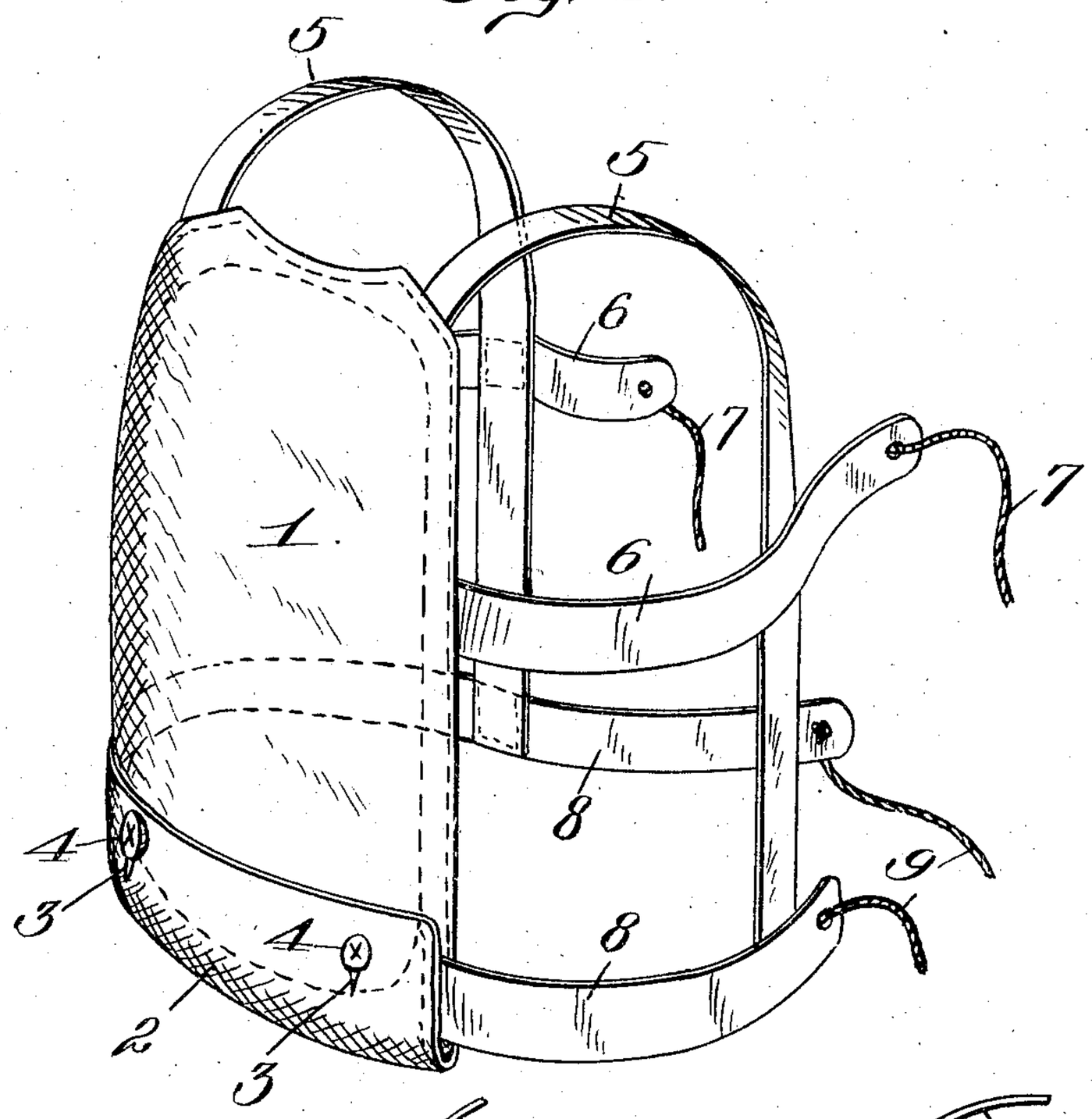


Fig. 2.

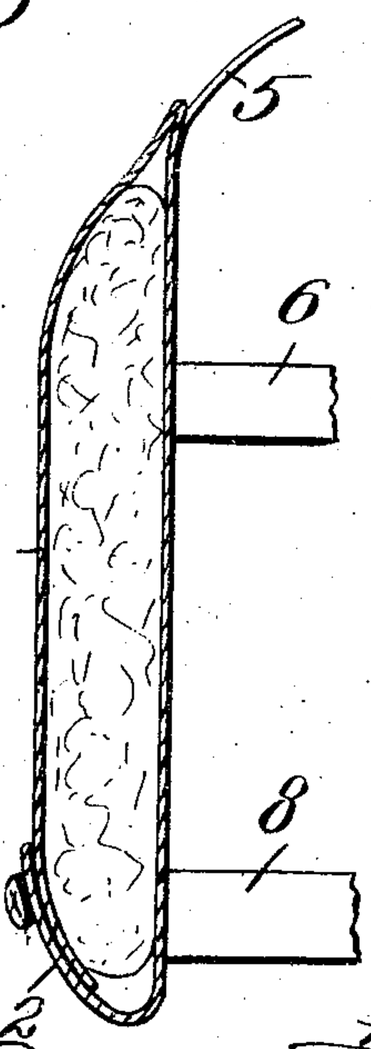
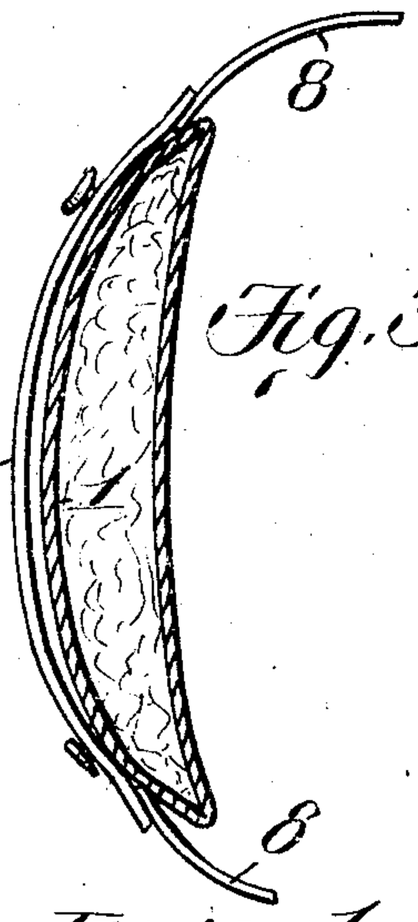


Fig. 3



Witnesses:
G. F. Kesler.
James L. Norris, Jr.

Inventor
Gustave Krieger.
By James L. Norris.
Atty

No. 785,503. PATENTED MAR. 21, 1905.

G. KRIEGER.

LIFE SAVING APPLIANCE.

APPLICATION FILED AUG. 4, 1904.

2 SHEETS—SHEET 2.

Fig. 4.

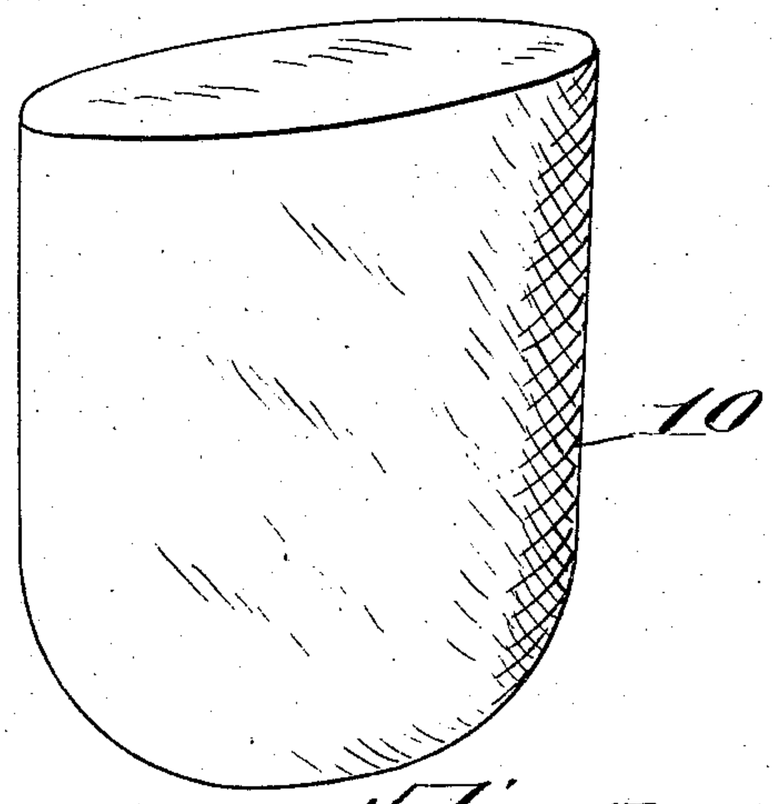
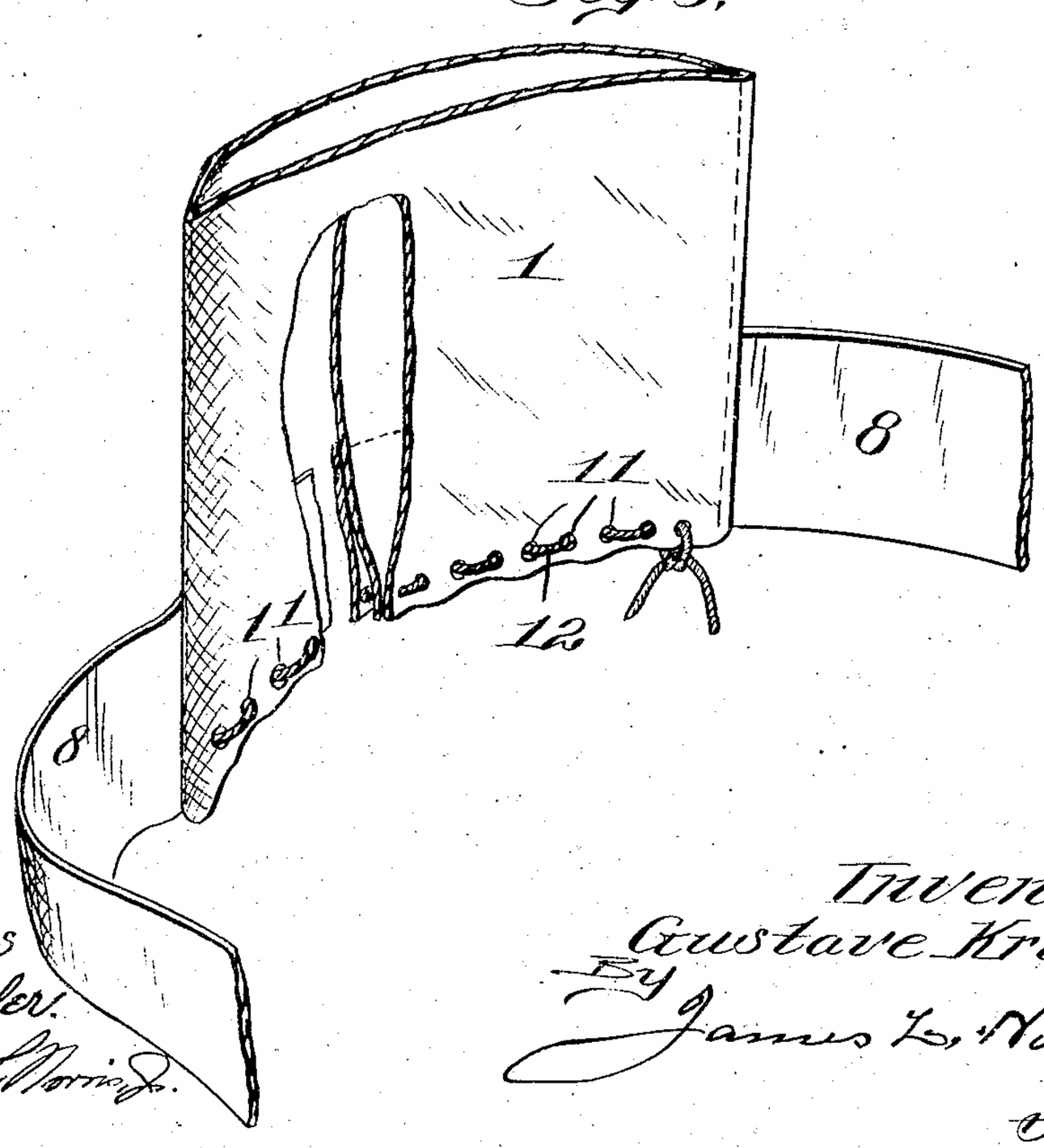


Fig. 5.



Witnesses
C. D. Kesler.
James L. Morris Jr.

Inventor
Gustave Krieger
By James L. Morris.
Atty

No. 785,503. Patented March 21, 1905.

UNITED STATES PATENT OFFICE.

GUSTAVE KRIEGER, OF BROOKLYN, NEW YORK.

LIFE-SAVING APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 785,503, dated March 21, 1905.

Application filed August 4, 1904. Serial No. 219,521.

To all whom it may concern:

Be it known that I, GUSTAVE KRIEGER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Life-Saving Appliances, of which the following is a specification.

This invention relates to a life-saving appliance for use in floating a human body while in water, or it may be employed during the initial instructions in swimming, and is in the form of a receptacle or bag of suitable material which is applied to the back of the user and is adapted to contain a buoyant element, such as cork, an inflated flexible bag, or an air-tight metallic box. The receptacle or bag is also provided with a series of shoulder and body straps for maintaining the same in applied position, and the appliance as an entirety is capable of quick application and adjustment when worn, or it may be reduced to compact form and stored about the person of the user or within a traveling-bag, basket, or other device. The parts of the appliance are of such simple nature that the complete article can be produced at a minimum expense.

In the drawings, Figure 1 is a perspective view of the appliance shown in the position it will assume when on the body of the user and as having an inflated flexible bag therein. Fig. 2 is a longitudinal section through the main member or receptacle of the appliance. Fig. 3 is a transverse section through the mouth end of the receptacle, showing the closing-flap and portions of the attaching devices connected thereto. Fig. 4 is a detail view of a modified form of buoyant device for insertion in the bag or receptacle. Fig. 5 is a detail view showing the end of the receptacle or bag having laced closing means.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1, Figs. 1, 2, and 3, designates the main member or receptacle of the appliance, which is of bag-like form and open or having a mouth at the lower end, which is closed by an overlapping flap 2, provided with buttonholes 3 for the reception of buttons 4, carried by the outer side portion of the receptacle. Instead of buttonholes and buttons, as set forth, other simple fastening means may be substituted. The receptacle 1 is of such length as to cover the back of the user, and when applied it extends longitudinally of the back approximately from the back of the neck to the waist. This receptacle is adapted to receive a buoyant element, such as cork, an inflated rubber or other elastic bag, or air-tight boxes formed of aluminium, tin, or other light metal. The buoyant element or elements may be readily inserted in or withdrawn from the receptacle 1, and in some instances when the inflatable bag is inserted in the receptacle it may remain in the latter and be provided with a valved tube or pipe accessible from the exterior, this arrangement being well known in the art of buoyant devices. When the bag is deflated or collapsed, the appliance can be reduced to compact form for storage in a receptacle or about the body of the user with the same facility as when the buoyant element is entirely withdrawn from the receptacle. In Fig. 1 an inclosed inflatable bag has been shown in dotted lines to illustrate one practical means for effecting buoyancy of the appliance.

The upper end of the main member or receptacle on opposite sides of the center has shoulder or suspending straps 5 connected thereto and adapted to depend over the front of the body of the user, and at an intermediate point surrounding connecting-straps 6 are attached to the main member or receptacle and to the straps 5 and have terminal fastening means 7, which in the present instance are in the form of tying cords or tapes, though other securing means may be employed. The advantage of these intermediate straps is that the appliance may be held closely to the back of the user and prevented from becoming displaced or rising from the person of the user when applied, with obvious disadvantages. To opposite extremities of the flap 2 waistband-straps 8 are attached and also secured to the terminals of the shoulder-straps 5, the waistband-straps having at their opposite ends tying fastening-tapes or analogous devices 9, which, together with the fastening means 7, facilitate the application of the appliance.

It is preferred that the main member or receptacle 1 and the straps connected thereto as set forth be formed of canvas or duck, though other materials may be used, if desired, and by the arrangement of the straps as set forth the receptacle 1, containing the buoyant element, is held closely in connection with the back of the user, and the application of the appliance is expedited. Instead of the fastenings 7 and 9, as set forth, metallic devices may be used; but this change is governed solely by a selection, and tapes will be preferable in view of the convenience in connecting the same and the positiveness of securement resulting therefrom. By connecting the waist-straps 8 to the flap 2 in the manner specified all strain on the said flap, which might have a tendency to disconnect the same when in closed position, is obviated, and, in fact, a close relation of the flap to the lower end of the receptacle is instituted. The location of the mouth of the receptacle 1 at the lower end is advantageous, in that the buoyant element when not permanently inclosed by said receptacle may be more readily inserted and positioned with comfort to the user of the appliance. Furthermore, by attaching the shoulder-straps 5 to the upper end of the receptacle 1 as set forth the latter will be held in closer relation to the body of the user and be prevented from having loose movement. By locating the receptacle 1, containing the buoyant element, on the back of the user freedom of the arms is permitted, and obstruction to the propulsion of the body through the water by swimming motions is obviated.

In Fig. 4 a different buoyant element is shown and consists of a removable aluminium or other air-tight sheet-metal box 10 of the shape shown, two of such boxes being used or any number in proportion to the size of the bag or receptacle. In Fig. 5 the lower end of the bag or receptacle, including the flap 2, is provided with eyelets 11, through which a lacing-cord or other device 12 is threaded to facilitate opening and closing the mouth end of the bag or receptacle. Furthermore, the number of button-fastenings or the like may be varied at will.

From the foregoing it will be seen that a convenient appliance is provided and one from which the greatest benefit will be derived in establishing a buoyant condition of the body of the user, and to accommodate various applications changes in the proportions, dimensions, and minor details may be resorted to without departing from the spirit of the invention.

Having thus fully described the invention, what is claimed as new is—

1. An appliance of the character set forth, having a bag-like receptacle adapted to receive a buoyant element and provided with a mouth at its lower extremity, and attaching-straps secured to the upper, intermediate, and lower portions of the receptacle, one of said straps serving to hold the mouth closed.

2. An appliance of the character set forth, having a bag-like receptacle adapted to receive a buoyant element and provided with a mouth at its lower end, a closing-flap for the mouth having securing means, and attaching-straps secured to the upper, intermediate, and lower portions of the receptacle, the lower straps being fastened to the said flap and serving to prevent the latter from becoming accidentally disengaged from closed position.

3. An appliance of the class set forth, having a mouth with a closing-flap provided with fastening means, and means for holding the device applied and for retaining the flap in a closed position.

4. An appliance of the class set forth, consisting of a receptacle adapted to receive buoyant means and provided with a lower mouth, and holding-straps applied to the upper, intermediate, and lower portions thereof, the straps attached to the upper part of the receptacle also connecting with the intermediate and lower straps.

5. In an appliance of the class set forth, the combination of a receptacle adapted to contain a buoyant element and having an opening provided with a closure, and supporting and fastening means attached to the upper end, intermediate and lower portions of the said receptacle, one of said means adapted to hold the closures in working relation.

6. A device of the class set forth, consisting of a receptacle having a lower closing-flap, fastenings interposed between said flap and lower end of the receptacle, and fastening-straps attached to the upper, intermediate, and lower portions of the receptacle, the lower straps controlling the closure of the receptacle.

7. An appliance of the character set forth, consisting of a bag-like receptacle having a lower mouth, a flap movable over said mouth and suspending and securing straps attached to the upper, intermediate, and lower portions of the receptacle, the lower straps controlling the closure of the flap.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GUSTAVE KRIEGER.

Witnesses:
GODFREY A. WESTEFELD,
EMIL KRIEGER.