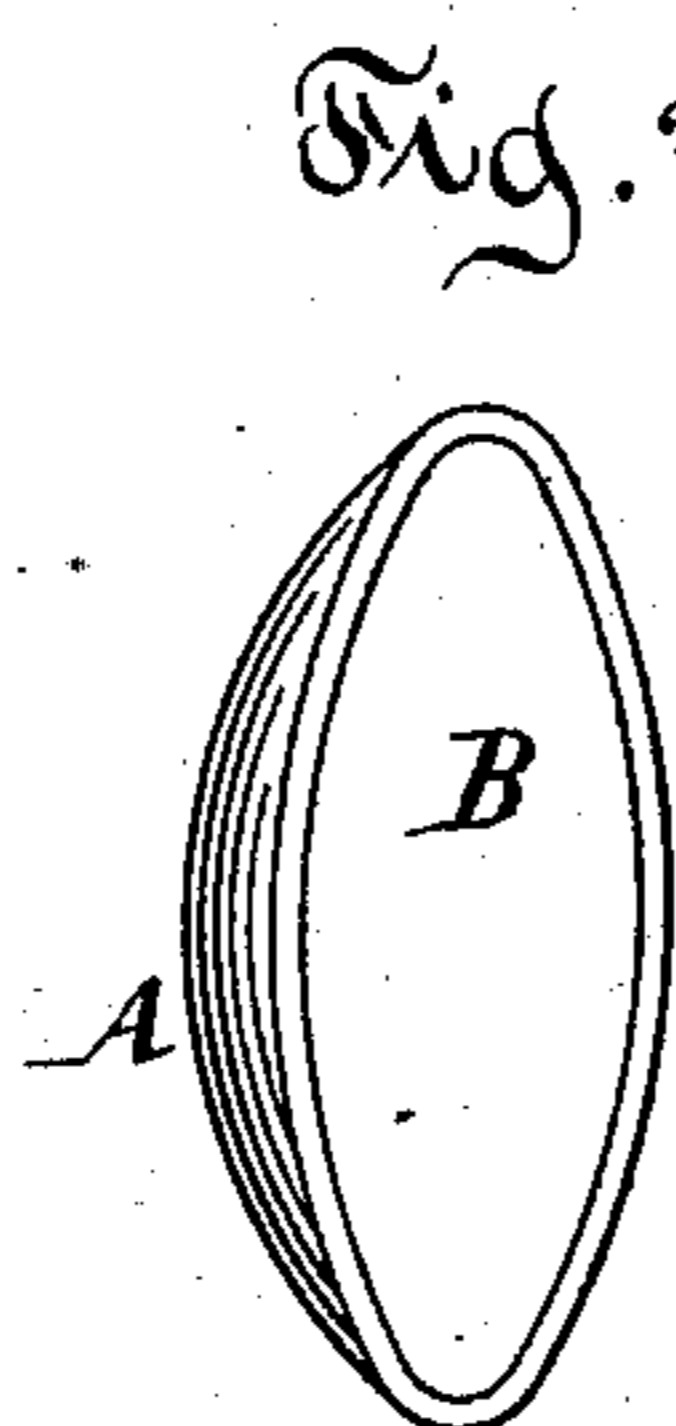
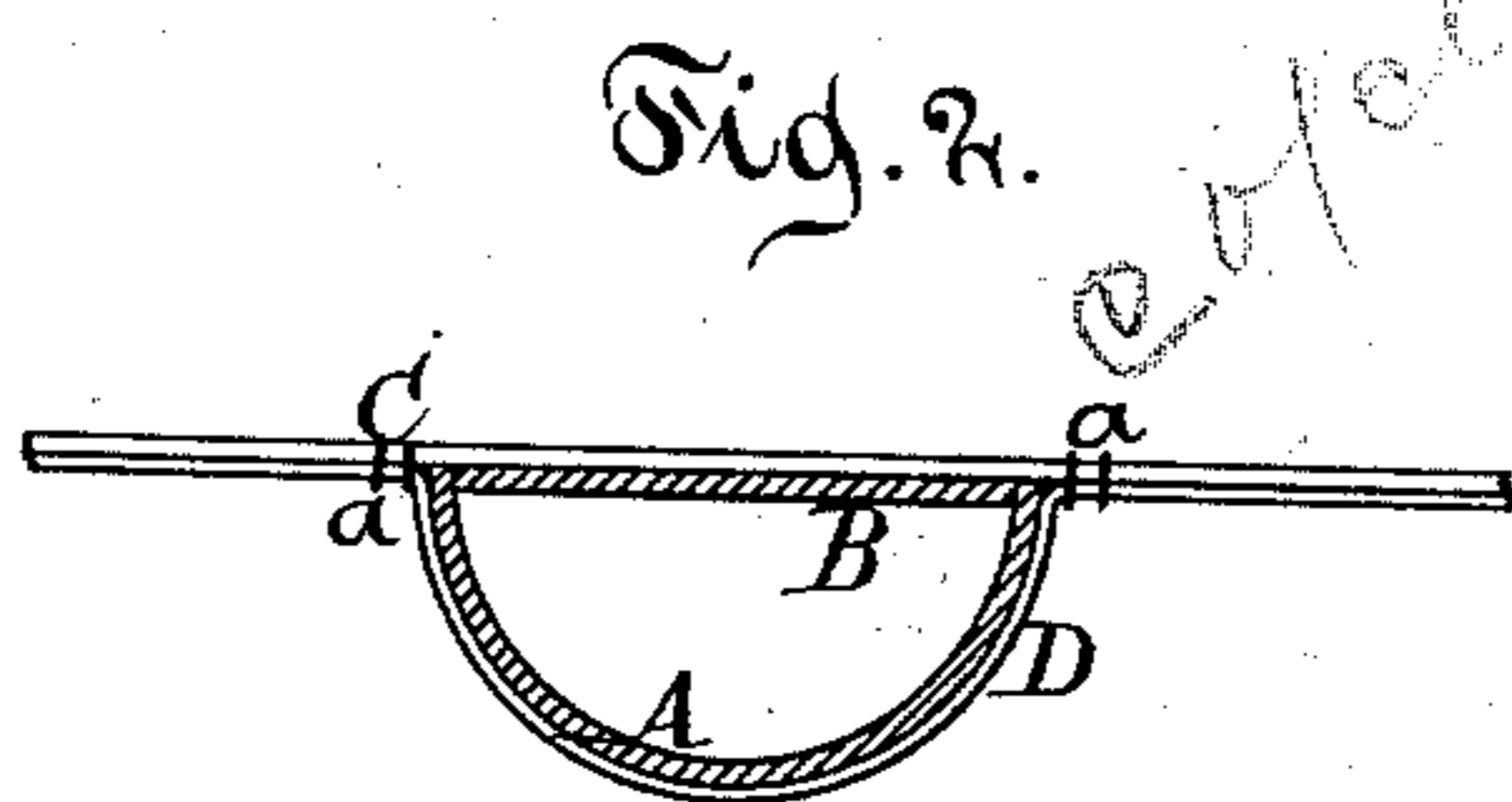
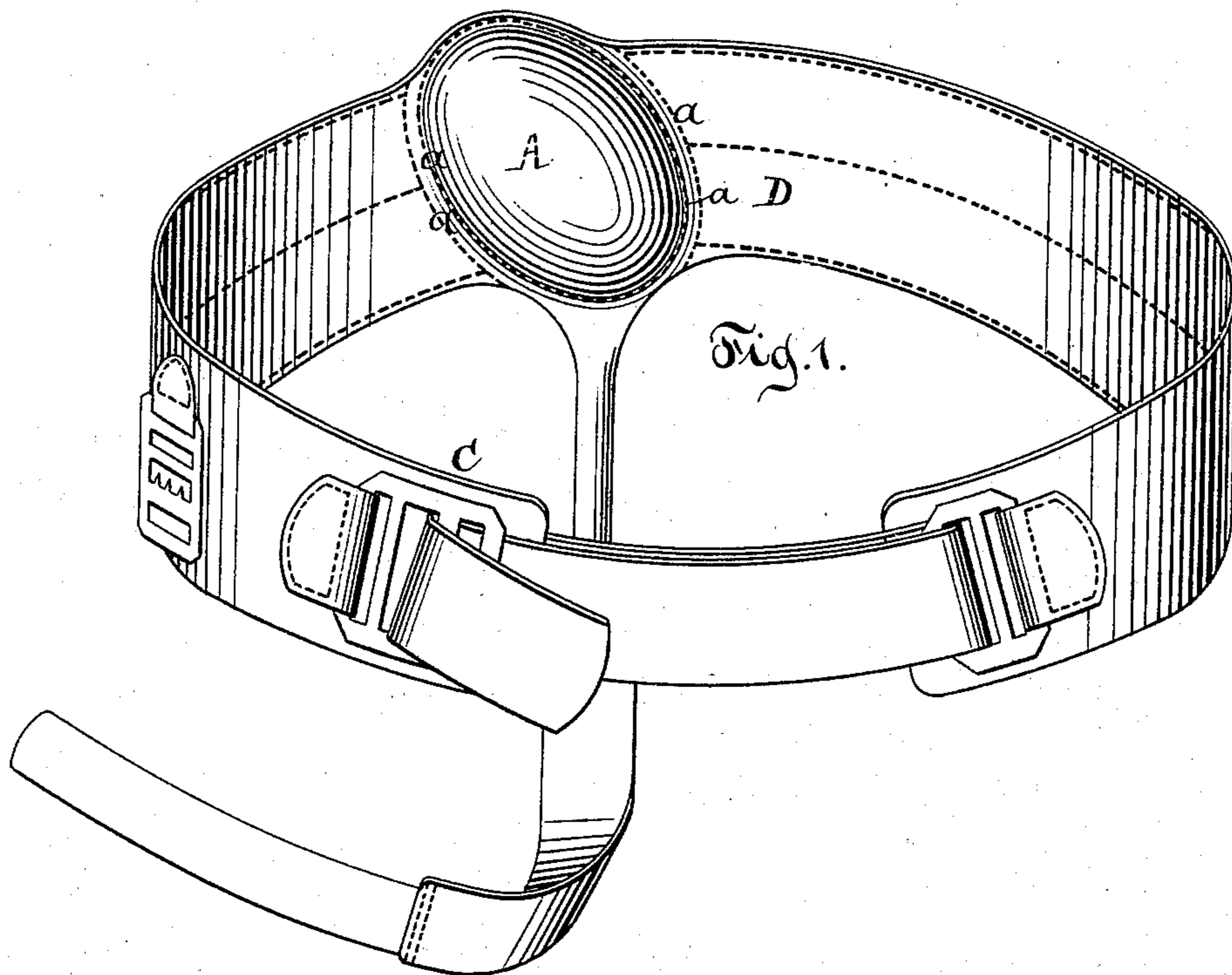


J. M. GRUBE.  
Truss.

No. 218,961.

Patented Aug. 26, 1879.



Witnesses.  
Chas. Wahlers.  
William Miller.

Inventor.  
Julius M. Grube  
by Van Santvoord & Hauff  
his attys.

# UNITED STATES PATENT OFFICE.

JULIUS M. GRUBE, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN TRUSSES.

Specification forming part of Letters Patent No. **218,961**, dated August 26, 1879; application filed April 16, 1879.

*To all whom it may concern:*

Be it known that I, JULIUS M. GRUBE, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Trusses, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a rear perspective view of a truss embodying my invention. Fig. 2 is a longitudinal section of a portion of the belt. Fig. 3 is a rear perspective view of the pad detached.

Similar letters indicate corresponding parts.

My invention relates to the construction of pads for trusses, and to their attachment to belts for supporting the same on the body.

My invention consists in the combination of a belt, a lining, and a plano-convex air-tight hollow pad, formed of soft or flexible rubber, inserted between the belt and lining, and secured in place by one or more rows of stitching connecting the lining to the belt, and surrounding the said pad, all of which will be fully hereinafter described.

In the drawings, the letter A designates the front, and B the back, of my pad; C, a belt, and D the belt-lining, whereby the pad is held in position. I mold the pad-front A and back B of india-rubber, so as to leave the same flexible, and give the front a concavo-convex form, while I make the back flat, giving each part an equal or nearly equal thickness throughout. I then unite the front and back at their edges by vulcanization. By this means I obtain an air-tight bag, the air within which serves to keep the same distended, and which is devoid of the metallic or hard projections found in similar pads heretofore made, which projections obviously affect the comfortable quality of the pad, and, in some cases, tend to injure the body of the patient. By making both the pad front and back of flexible india-rubber I adapt the same to yield or bend in any direction.

The belt C is made of cloth or other suitable material, and of ordinary form, the same being provided with suitable fastening devices

for holding the same upon the person. I attach the pad A B to this belt as follows: I place the flat side or back B of the pad against a suitable part of the belt, and stretch the belt lining D, which is usually made of cloth, over the pad; then form a few lines of stitches, *a*, around the pad, through the belt and lining, and by this means inclose the pad between them. This mode of fastening leaves both the pad and the belt plain, so that the advantages due to the construction of the pad are retained, and an exceedingly flexible or comfortable truss is obtained.

In some cases I make the belt and its appurtenances of india-rubber; but as this forms no part of my present invention I have not given a detailed description thereof herein.

I am aware that a pad for trusses has been constructed of a rubber bag provided with a projecting nipple for inflating the bag with air, or for discharging the air therefrom, in order to regulate or change the pressure exerted, and such I hereby disclaim, inasmuch as it is not my invention.

By my invention I provide a hernia-truss pad which is very simple and inexpensive, and at all times it maintains the same degree of flexibility; and, further, by my invention I avoid the employment of metallic or other rigid projections, and the cushion is a hermetically-sealed chamber of soft rubber arranged on a flat soft-rubber backing.

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the belt C, lining D, and the plano-convex air-tight hollow pad, formed of soft or flexible rubber, inserted between said belt and lining, and secured in place by one or more rows of stitching, connecting the lining to the belt and surrounding the said pad, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 15th day of April, 1879.

JULIUS M. GRUBE. [L. S.]

Witnesses:

W. HAUFF,  
CHAS. WAHLERS.