

(No Model.)

J. H. & I. N. LEYDA,
OBSTETRICAL APPLIANCE.

No. 504,598.

Patented Sept. 5, 1893.

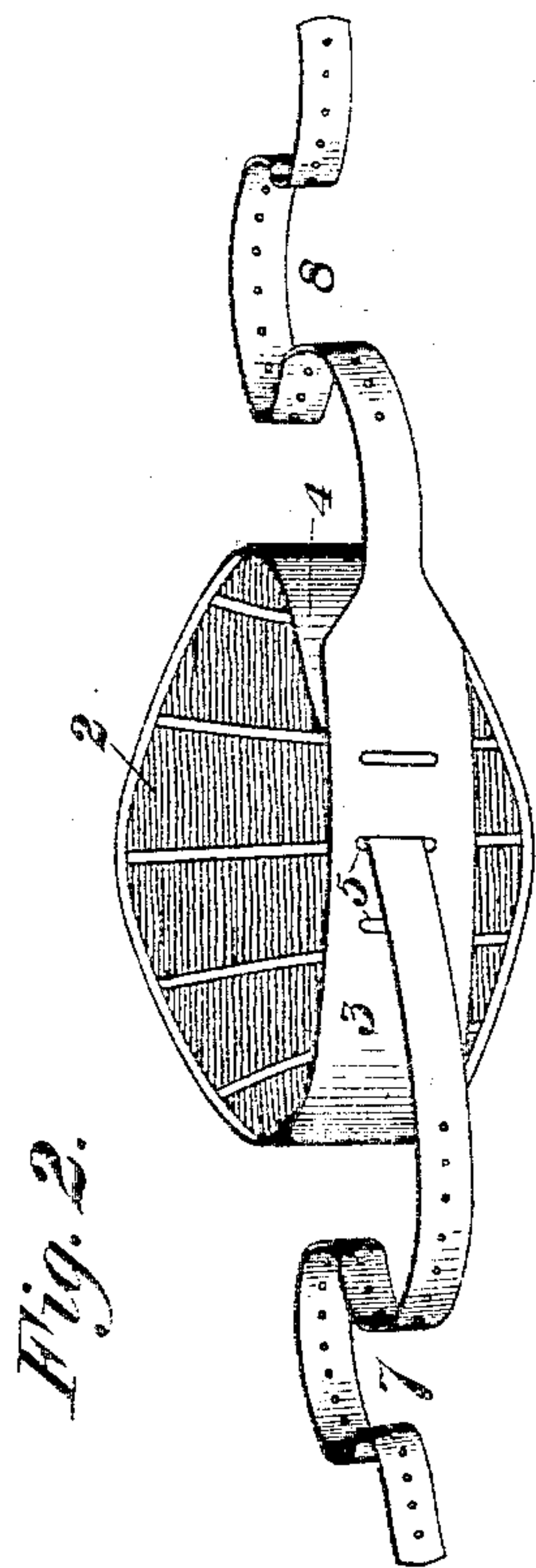
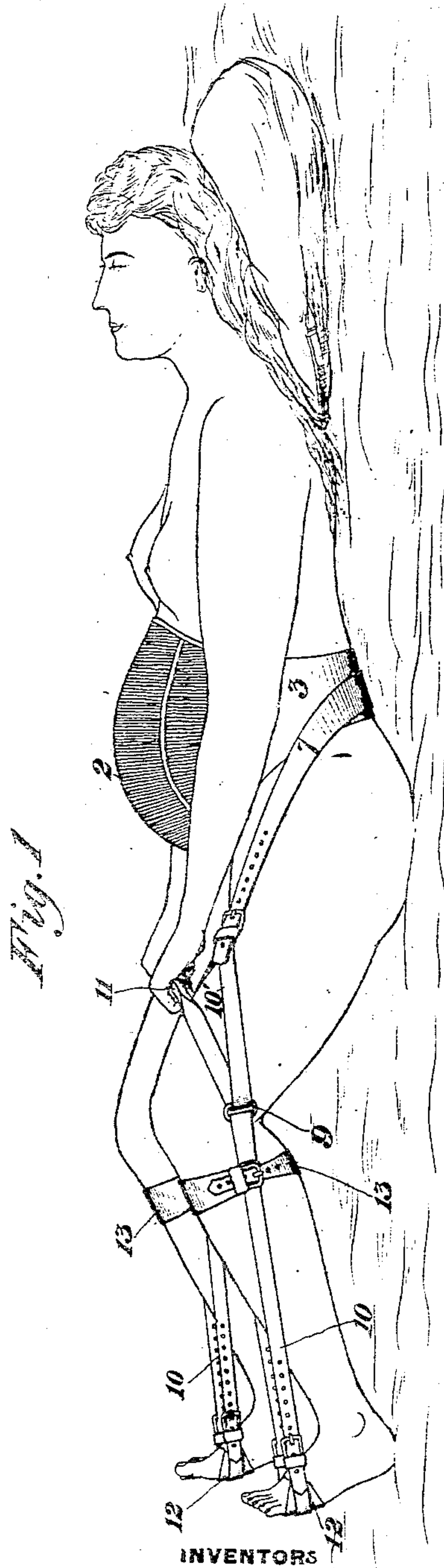


Fig. 2.



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WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES H. LEYDA AND ISAAC N. LEYDA, OF ALLEGHENY, PENNSYLVANIA.

OBSTETRICAL APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 504,598, dated September 5, 1893.

Application filed July 14, 1892. Serial No. 439,957. (No model.)

To all whom it may concern:

Be it known that we, JAMES H. LEYDA and ISAAC N. LEYDA, both of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Obstetrical Appliances, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 shows an obstetrical device applied to the person; and Fig. 2 is a view of the abdominal compressor band or belt detached.

The object of our invention is to provide means for supporting and bracing a woman in child birth, diminishing the pains of labor, and rendering it safer and easier.

The device comprises a flexible (preferably elastic) abdominal compressor belt, with means by which by motion of the arms or legs of the patient may be tightened as required. Said means, which are claimed specifically in our more limited claims, comprise two inelastic loin bands adapted to be connected by an extensor strap to the feet of the patient, and are provided with hand-holds, enabling the patient, by pulling thereon, to draw on the loin bands.

In the drawings, 2 represents the abdominal compressor, composed of a wide band of concave form made preferably of elastic fabric and adapted to fit over the abdomen. It has straps or extensions 3, 4, preferably made of leather, and adapted to extend around the back, one strap passing through a hole 5 in the other, making of the band a loop, which can be drawn as tightly as desired around the waist of the patient. There are preferably several holes 5, permitting adjustment of the band. From the middle of the back of the patient, continuations 7, 8, forming loin-straps, extend over the loins. Each loin strap has its lower end attached to a buckle at the upper end of two connected straps 10', which pass through loops or rings 9, at the upper end of extensor straps 10, and each pair of straps 10' has a handle 11, adapted to be grasped by the patient's hand. The lower end of the extensor-straps 10 have stirrups 12, adapted to fit on the patient's feet, and the straps may be held in position by bands 13 encircling the legs.

When the device is applied in cases of labor, the compressor may be drawn around the abdomen as tightly as desired, and then by extension of the legs, or the counter-extension caused by pulling on the handles 11, the pressure can be distributed upon the abdomen at the middle or at either side, or at either or both sides of the back, and can be directed and controlled entirely at the will of the patient and accoucher.

Changes in construction and form of the apparatus may be made without variance from our invention as defined in the following claims.

The apparatus has been found to be of great utility. It gives confidence to the patient, aids her in assuming such position as will expedite delivery, makes it unnecessary to employ female assistants to support the back, and by its support relieves the pains in the loin and at the sacral and lumbar articulations. It dispenses with the use of foot-blocks, &c., by furnishing fixed points for extension and counter extension for the lower and upper extremities. The apparatus is light, adjusts itself automatically to the patient's position, and makes it easy for her to move.

When the apparatus is used in counter extension, there are three points of resistance, each of which can be made positive or negative at the will of the accoucher or patient, the pressure at each point being transferable to another, without any readjustment of the apparatus. These three points are: first, the elastic abdominal compressor; second, the back; third, the upper extremities. The first point has attachments in such a way as to either make the whole of the counter extension on the abdominal parietes or distribute it between the parietes, back, and upper extremities. These interconvertible points of counter-extension have applications that each obstetric case will disclose to the physician, and demonstrate to him the utility of the appliance as an aid to child birth. In cases of labor attended with anterior obliquity, the elastic abdominal compressor is made the point of resistance. In posterior obliquity the loin bands and the elastic compressor jointly become such point, while the latter is brought to make pressure on the abdominal parietes in such a manner as to operate precisely as

does the inferior oblique muscle of the eye, thus rotating the uterine axis into the axis of the pelvic outlet. Lateral obliquity is remedied by making the abdominal parietes and back the fixed points; and preventing the upper extremities from participating in counter-extension. The elastic compressor being *in situ*, and conforming to the shape and size of the distended parietes, the moment delivery occurs the compressor becomes virtually an automatic appliance, adapting itself to the diminished walls by reason of its becoming the point from which partial or complete counter-extension as indicated is made, thus not only anticipating, but effectively guarding against post partem hemorrhage and subsequently aiding delivery of the after-birth.

We claim—

1. An obstetrical appliance comprising an abdominal compressor band adapted to fit around the abdomen, having free ends adapted to cross at the back and adapted to extend from the middle of the back in opposite directions over the loins to the patient's hands or legs, and hand or feet holds applied to said ends; substantially as described.

2. An obstetrical appliance comprising an abdominal compressor band of elastic material and of form adapted to fit around the abdomen, and having free ends adapted to cross at the back and adapted to extend from the middle of the back in opposite directions over

the loins to the patient's hands or legs, and hand or feet holds applied to said free ends; substantially as described.

3. An obstetrical appliance comprising an abdominal band, having extensions leading therefrom, and adapted to extend from the patient's back crosswise over the loins, leg-extensor straps connected therewith by loop-connections, and hand-holds connected with said extensions and passing through said loop-connections; substantially as described.

4. In an obstetrical appliance, the combination of leg-extensor straps and an abdominal compressor band, one portion of which passes through the other at the back, and has loin-straps connected with the abdominal compressor band and with the leg-extensor straps; substantially as described.

5. In an obstetrical appliance, the combination of leg-extensor straps provided with foot attachments or stirrups, and an abdominal compressor band, having crossing loin-straps connected therewith; substantially as and for the purposes described.

In testimony whereof we have hereunto set our hands this 9th day of July, A. D. 1892.

JAMES H. LEYDA.
ISAAC N. LEYDA.

Witnesses:

W. B. CORWIN,
H. M. CORWIN.