

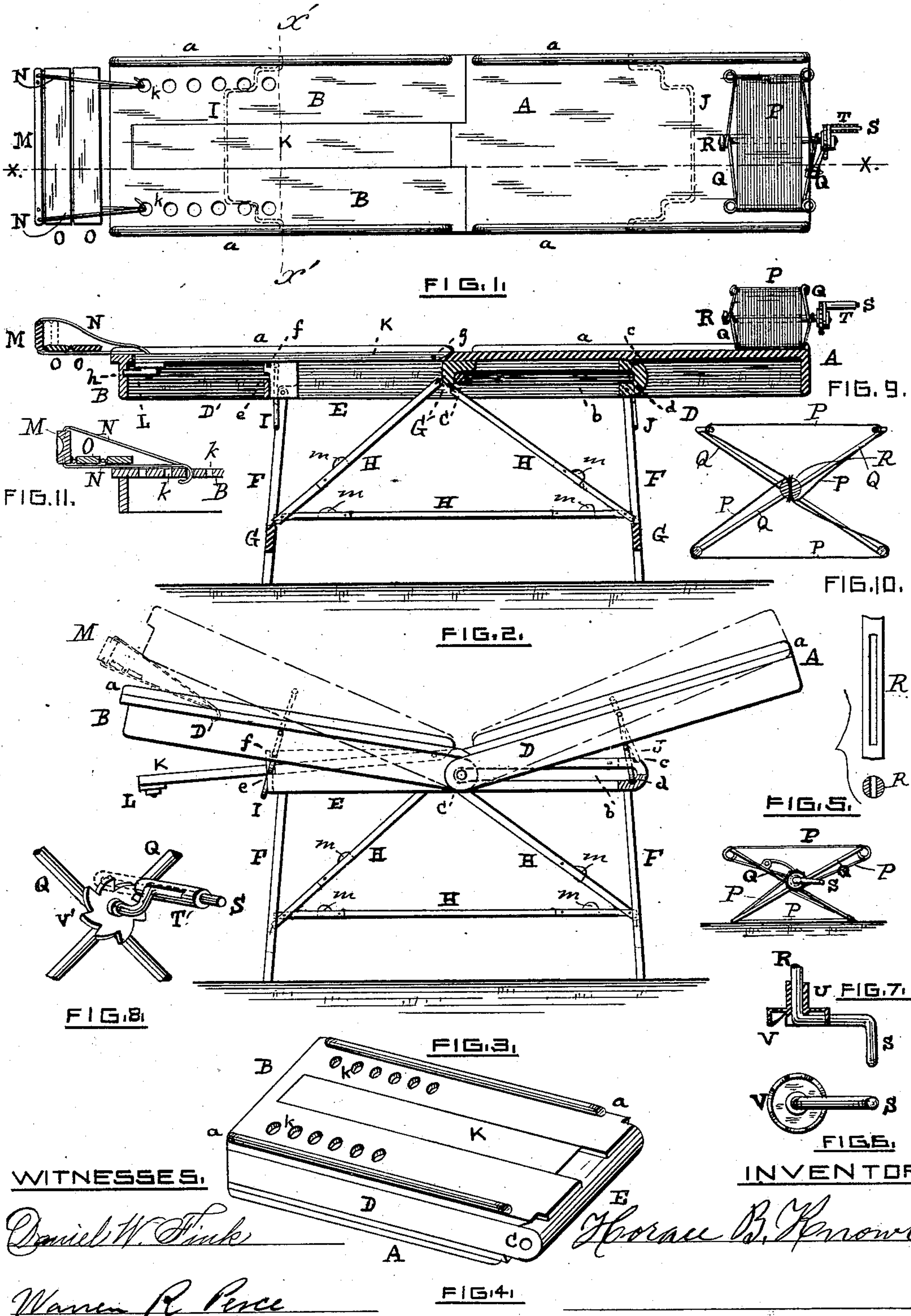
(No Model.)

2 Sheets—Sheet 1.

H. B. KNOWLES.
EMBALMER'S TABLE.

No. 316,980.

Patented May 5, 1885.



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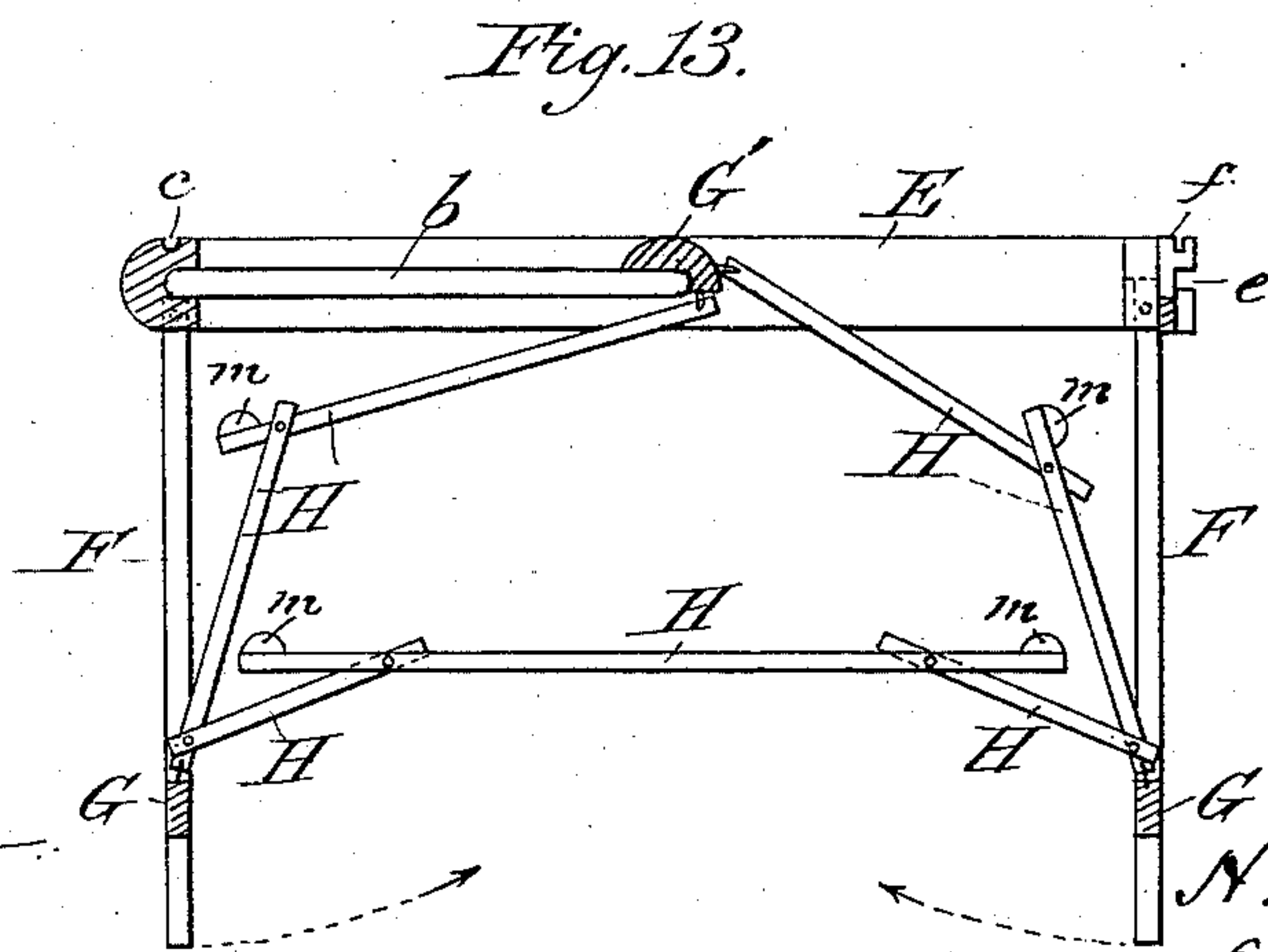
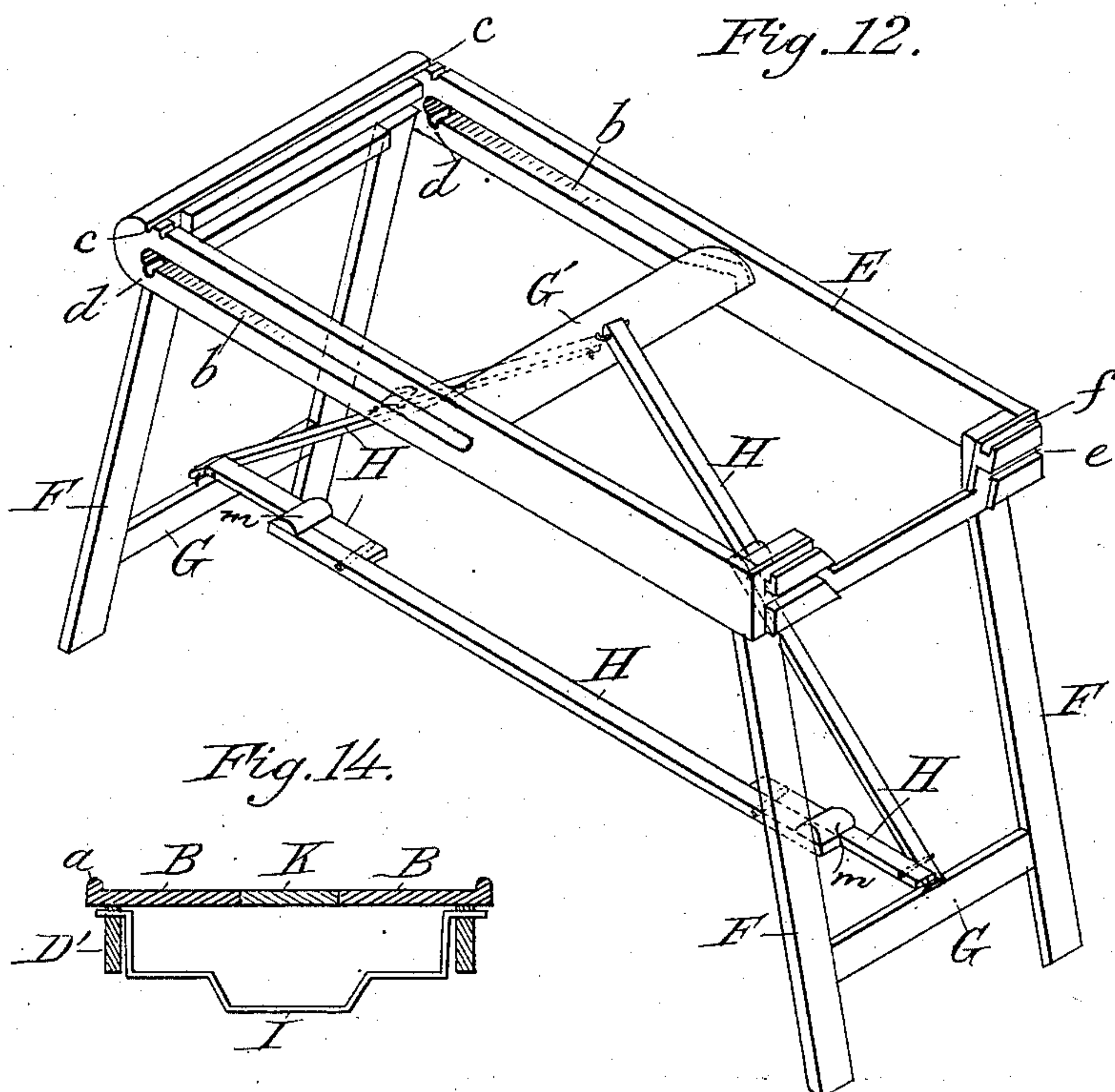
2 Sheets—Sheet 2.

H. B. KNOWLES.

EMBALMER'S TABLE.

No. 316,980.

Patented May 5, 1885.



Attest:

H. H. Schott
A. R. Brown.

Inventor:

N. B. Knowles
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Atty.

UNITED STATES PATENT OFFICE.

HORACE B. KNOWLES, OF PROVIDENCE, RHODE ISLAND.

EMBALMER'S TABLE.

SPECIFICATION forming part of Letters Patent No. 316,980, dated May 5, 1885.

Application filed September 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, HORACE B. KNOWLES, of the city and county of Providence, in the State of Rhode Island, have invented a new and useful Improvement in Embalmers' Tables and Cooling-Boards; and I declare the following to be a specification thereof, reference being had to the accompanying drawings.

Like letters indicate like parts.

Figure 1 is a top plan of my invention. Fig. 2 is a vertical longitudinal section on the line *xx* of Fig. 1. Fig. 3 is a side elevation showing the various inclinations of the bed-sections. Fig. 4 is a perspective view of my invention when folded. Fig. 5 is a front elevation of the head-rest. Figs. 6, 7, and 8 are detail views. Fig. 9 is a cross-section of the head-rest. Fig. 10 is a detail view of the reel-shaft. Fig. 11 is a sectional detail showing the manner of attaching the foot-board to the bed-sections. Fig. 12 is a perspective view of the supporting-frame of the table with its folding legs and braces opening out. Fig. 13 is a vertical section of Fig. 12, showing the legs and braces partly closed. Fig. 14 is a cross-section on the line *x'x'* of Fig. 1, showing the stirrup and its attachment to the bed-frame.

My invention is a combined cooling-board and table for embalming; and it consists of a bed-board in two sections, which are pivoted upon a cross-rod and capable of variable elevation thereon, and which are supported by a folding table engaging and sliding upon said cross-rod; also of a central drop in the lower bed-section lengthwise for the purpose of drainage; also of an adjustable head-rest and foot-rest, as hereinafter described, and specifically pointed out in the claims.

The bed of the table is made in two sections, A and B, which are preferably of equal length. They are pivoted together upon the cross-rod C at their inner ends, which rod passes transversely from side to side through the bed-frames D D', there extended for that purpose, as shown in Fig. 3, the bed-frame D' folding within the bed-frame D, as shown in Figs. 3 and 4. Ledges *aaaa* extend along the edges of the bed-boards A B, and serve to protect the veneered or other exterior finish of said boards.

A table, E, has pivoted swinging legs F, which are connected by cross-bars G and hinged folding braces H. The table-frame E on each side is longitudinally slotted half its length, as shown at *b* in Figs. 2, 3, 12, and 13. The cross-rod C passes through said slots *b*, thereby connecting the table and the bed-boards together, while allowing said table to slide longitudinally upon said rod C as far as the slot *b* extends.

The folding braces H H are pivoted to the cross-bars G G', as shown in Figs. 2, 12, and 13, and at their points of connection with each other they are provided with stops or cleats *mm*, by means of which they are held rigidly when unfolded.

Stirrups I J, bent in the manner shown in dotted lines in Fig. 1, are hung within the side frames, D D', and are thus capable of vertical swinging and adjustment. These stirrups, when the bed-boards are horizontally adjusted, fold down vertically against the table-legs F, as shown in Fig. 2, serving to still further strengthen the stability of the structure. The table-frame E, upon its slotted end, is grooved transversely, as shown at *c*. By inserting the lower or swinging end of the stirrup J in said groove *c* the upper bed-section, A, turning upon the cross-rod C, is elevated, as shown in dotted lines in Fig. 3, being braced and supported in such inclined position by said stirrup J so adjusted. A lower elevation of said bed-section A, as shown in solid lines in Fig. 3, may also be obtained by bringing the stirrup J into position to rest within the recess *d* of the table-frame E. It will be seen that the bed-section A is thus capable of three positions. (See Figs. 2 and 3.) In like manner the lower bed-section, B, is capable of two elevations, the first being obtained by inserting the shoulder portion of the stirrup I in the transverse groove *e* of the table-frame E, and the second by inserting the same portion of the stirrup I in the transverse groove *f* of said table-frame, as shown in Figs. 2 and 3.

The form of the stirrup I and the manner in which it is pivoted to the side frames, D D', are shown in Fig. 14. The stirrup J is constructed and attached in a similar manner.

A central drop, K, extends longitudinally

nearly the whole length of the bed-section B and is pivoted at *g*. (See Fig. 2.) It is held in position even with the surface of the bed-board B by means of a button, L, engaging in a groove, *h*, of the frame D', as appears in Fig. 2. The drop K falls vertically as far as is allowed by the end of the table-frame E, which is there somewhat cut down to give a proper slope or inclination to said drop.

In order to make said table and cooling-board suitable for persons of unusual length, an adjustable foot-rest, M, may be used, which has folding side bars or rods, N, preferably made of wire and formed into hooks at their ends, which hooks may be inserted in corresponding holes, *k*, on each side of the bed-board B, thereby extending it as far as desired.

Folding slats O, hinged together, extend transversely, resting upon the lower portion of the supports N in about the same plane as the bed-board B; or, if desired, said slats can be folded up against the foot-rest M, as shown in dotted lines in Fig. 2, when not needed.

The head-rest is made of a strap or band, P, of canvas, cloth, leather, or other flexible material supported upon crossed legs, preferably of wire, in shape resembling a camp-stool, said legs Q being pivoted upon a cross-rod, R, which is also a reel, wherein said strip P is fastened and may be wound by turning a cranked portion, S, in which the cross-rod R terminates. The strip P is secured to the cross-rod R by inserting its ends through a longitudinal slot in said rod, (see Figs. 9 and 10,) and the folding of the strip over and upon itself as wound by the crank causes it to be firmly fastened. By winding up the strip P upon the reel R its length is shortened, thus bringing nearer together the upper ends of the legs Q, and thereby raising the head-rest vertically. A handle, T, surrounds the spindle of the crank S. When the head-rest is brought to the desired height, it is there securely held in position by sliding the cross-rod R within the sleeve U of the ratchet V; or by using straight ratchets instead of bent ratchets, as shown in Fig. 8, and by slotting the handle T', as shown in said figure, said handle itself may be slid, as shown in dotted lines therein, thus preventing the unreeling of the rod R by the engagement of said handle with the fixed ratchet-wheel V'.

When not in use, the table-legs and braces compactly fold together within the box-like compartment formed by the shutting together of the bed-boards A B and their side frames, D D', as shown in Fig. 4, the rounded end of the table E forming a part of such inclosure.

When I desire to use my improved table and board, I open said bed-sections to a horizontal position, raise the legs F vertically and straighten out the folding braces H. I then pull forward the rounded end of the table E, which slides upon the cross-rod C, which passes through its slots *b*, and bring it to a

central position, as shown in the drawings. I then swing up the stirrups I J against the legs F. The table is thus made substantial and firm, and may be turned over to bring the bed-boards uppermost.

The tilting or variable elevation of the bed-sections A B, and of each of them, is a useful novelty in undertakers' tables, causing the blood and fluids of the corpse to settle in the pelvic regions, thus preventing their settling in the face to discolor the features, and allow their more easy discharge by opening the femoral, iliac, or other blood-vessels, either in embalming, post-mortem examinations, or in cases of dropsy or hydrostatic congestions. The variable elevation of the bed-section B is useful in reducing dropsical swelling of the legs or their congested conditions, and in allowing the blood to flow therefrom toward the heart, so that it will collect in the pelvic regions, whence it may be discharged by opening the proper blood-vessels.

In removing the surplus fluids, whether applied, extracted, or exuded, I cover the boards A B with a rubber sheet, whereon the body lies, and after adjusting said boards or bed-sections A B to an inclined position, so that the fluids will gravitate to the center, I then unbutton and lower the drop K, pressing down the rubber sheet into the aperture so made, thereby forming a temporary trough between the legs of the body down which such fluids may flow into a proper receptacle. The ledges *a* in such a case are useful to slope the sheet toward the center of the board, so that the fluids will run off into said trough.

The foot-rest, instead of being used to extend the length of the board, may be used at any position thereon as regulated by the holes *k*. It is intended that the heels shall rest against the board M; but in cases where the feet hang down unnaturally the rest M, as indicated in dotted lines in Fig. 3, may be lifted to the balls of the feet, and the weight of the body, pressing downward at an angle of elevation against the feet so braced, will straighten the feet to a natural position, in which they will stiffen.

The head-rest is placed upon the board at the proper position, as shown in the drawings. The board is divided transversely at its center, because it corresponds in position with the hip-joints of the body.

Instead of a cross-rod, C, used as a pivot, a hinge of any kind may be employed, but as being a mere mechanical equivalent, would be equally within my invention.

I claim as a novel and useful invention, and desire to secure by Letters Patent—

1. In an undertaker's table, the combination of the bed-sections A B, slotted table-frame E, having transverse grooves *c d e f*, the transverse rod C, the adjustable side bed-frames, D D', pivoted to said rod, and the stirrups I J, pivoted in said frames, substantially as described.

2. In an undertaker's table, the combination, with the adjustable bed-sections A B, of a head-rest consisting of the folding cross-pieces Q, slotted reel R, flexible strip P, crank S, and ratchet V, substantially as described.

3. In an undertaker's table, the combination, with the adjustable bed-sections A B, one of which is provided with perforations *k k*, of an adjustable foot-rest consisting of the foot-board M, folding slats O O, and side rods, N N, having hooked ends for engaging the perforations *k k*, substantially as described.

4. In an undertaker's table, the combination, with the adjustable bed-sections A B, side frames, D D', slotted table-frame E, and transverse rod C, of the pivoted legs F F, cross-

pieces G G G', and hinged braces H H, substantially as described.

5. In an undertaker's table, the combination of the adjustable inclined bed-sections A B, one of which is provided with a central longitudinal opening, the adjustable side frames, D D', having supporting-stirrups I J, the slotted table-frame E, the transverse rod C, and the pivoted drop K, whereby the table is capable of adjustment so as to cause the fluids of a body to gravitate to the pelvis and be drained therefrom, substantially as described.

HORACE B. KNOWLES.

Witnesses:

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WARREN R. PERCE.