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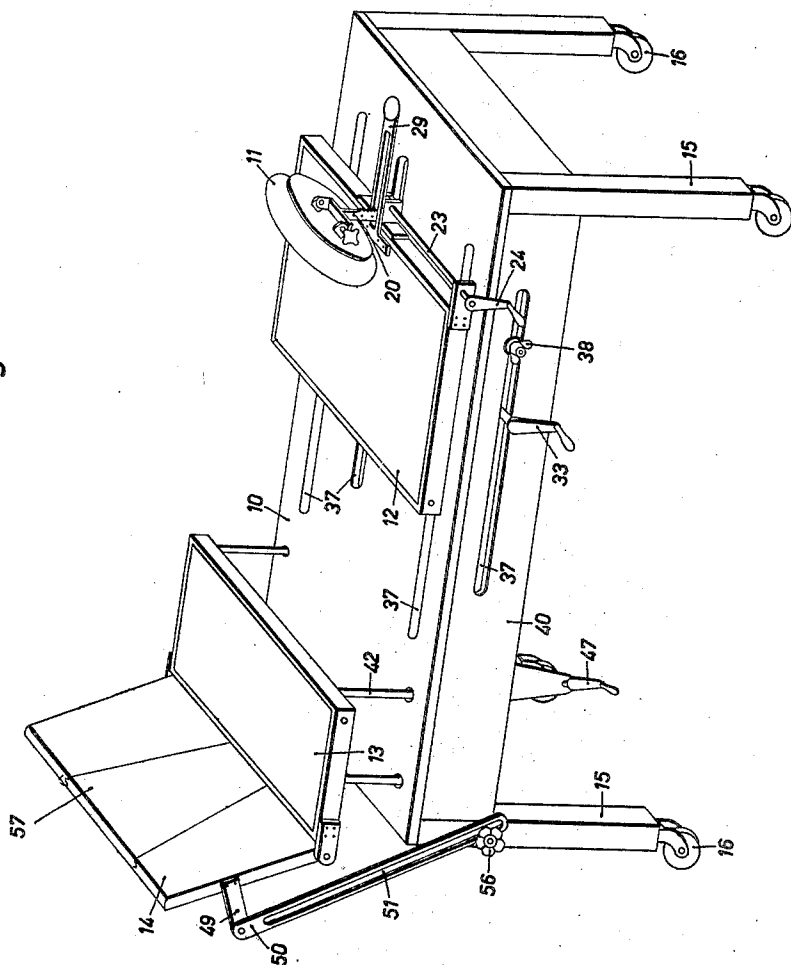
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TABLE SERVING FOR MEDICAL TREATMENT OF THE HUMAN BODY

Filed June 22, 1949

3 Sheets-Sheet 1

Fig. 1



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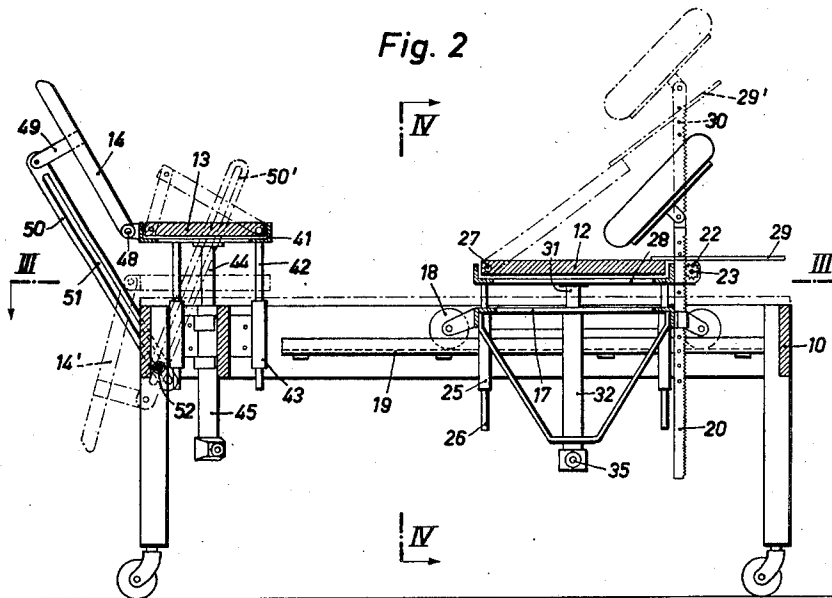
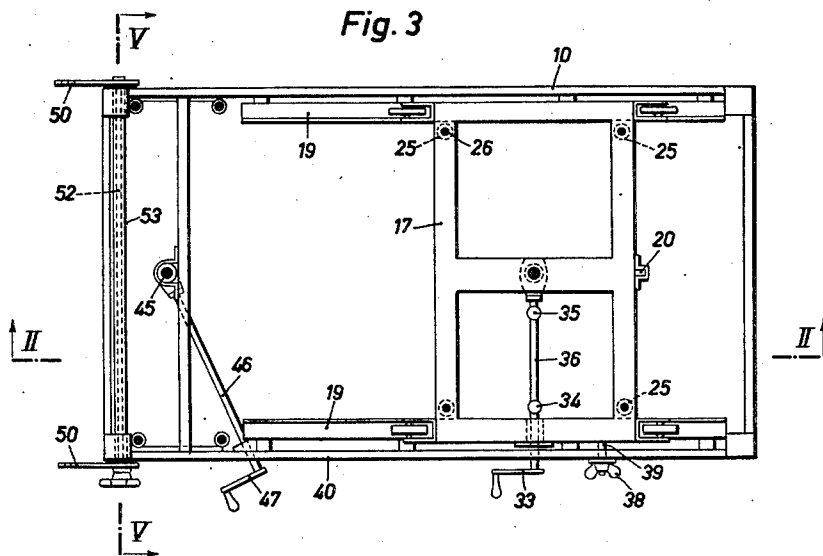
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Fig. 4

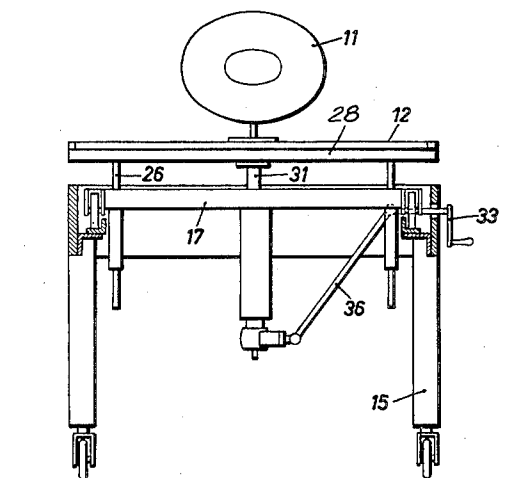
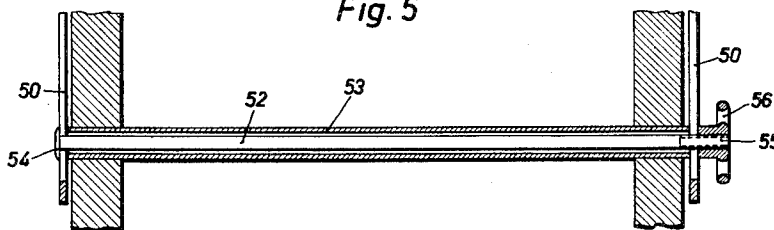


Fig. 5



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UNITED STATES PATENT OFFICE

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TABLE SERVING FOR MEDICAL TREATMENT OF THE HUMAN BODY

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2 Claims. (Cl. 311-7)

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The invention proceeds from a new therapeutical intuition of the applicant; it specifies the new technical means serving to bring a patient in a distinct position for causing a special therapeutical effect and to support him in this position.

The therapeutical intuition consists of occasioning a physiological reflex unknown until today, influencing the respiration by means of the pneumo gastric nerve decisively and thus being of main importance for asthmatics, by bringing the human body in a distinct position and supporting it at distinct points of the body. This position named by the catchword "knee-elbow-head-support-position," is identified by a nearly horizontal position of the body, face turned to bottom and knees bowed. The supporting of the body at particular spots is to cause unloading and thus loosening distinct groups of the muscles and on the other hand to cause tension of distinct other groups of muscles. Supported are: the head, the elbows, the bowed knees and the shanks. Thus the upper part of the body is not directly supported by the new apparatus. That the named supports of the apparatus are adjustable is essential for the invention, not only with respect to the difference of size of the bodies but also as the physiological reflex striven for does not always happen in the same position of the bodies and for that reason the chance must be given of altering the relative adjusting of the supports i. e. their height and the distance between each other and their angles when the patient is on the support.

The reflex of respiration remains in function as long as the adjusted position is maintained, its good after-effect lasting several hours at least (in serious pathological cases), generally several days and often several weeks after it has been caused. The reflex consists of highly intensifying the respiration by means of optimally ventilating the lungs. This is particularly striking in connection with patients the respiration of whom lies down nearly entirely—with serious asthmatics for instance. These can be brought to intensified respiration at once just as even nearly all persons suffering from illness of respiration-organs and of the heart. Outstanding healing-successes have already been reached.

The invention is of a further great medical importance. The inventor found out that in the new knee-elbow-head-support-position the atmospheric pressure in the true pelvis indicatable by a manometer—caused by arbitrary application of the force exerted by the abdominal muscles of the human body (i. e. tension of muscles

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of the abdomen while respiration stopped)—reaches nearly double as high an amount as in usual horizontal position (face turned to top). Thus the stage of expulsion in labor can be much shortened by this support-position what is of great importance for mother and newborn baby.

Preferably the supports are arranged to be moved by the doctor singularly. Thus the supporting position of the patient can be altered when the patient is already on the support.

A simple structure of the new support will be given by the following features: the knee-support is vertically adjustable in the frame of the support; the height and angle of the shank support are adjustable in the frame of the support and this support is linked at the knee-support; the heights of the elbow support and of the head support are separately adjustable in an auxiliary frame, the horizontal position of which is adjustable in the frame of the support. The elbow-support will preferably be formed by two articulated parts so that one part is capable to be unfolded and tilted, thus bringing the forearms of the patient to an inclined position. The unfoldable part of the elbow-support can be supported in various positions on the head support. Manually operated means, such as cranks are provided for moving the supporting elements.

On the drawings a preferred embodiment of the invention is shown:

Fig. 1 is a perspective view of the new support; Fig. 2 is a longitudinal section of the support along the line II—II of Fig. 3;

Fig. 3 is a plan view of Fig. 2 along the line III—III of Fig. 2;

Fig. 4 is a cross-section along the line IV—IV of Fig. 2 and

Fig. 5 is a view of several parts along the section-line V—V of Fig. 3.

The main parts of the new table are: a supporting frame 10, a head support 11, elbow-support 12, knee-support 13 and shank-support 14.

Frame 10 has legs 15 with the rollers 16.

A carriage means 17 is movably mounted located in frame 10 by means of rollers 18, that run on rails 19 fixed in frame 10. On the carriage 17 a rack 20 is guided on which head-support 11 is mounted turnable about an adjustable angle. A pinion 22 serves for altering the height of head-support 11, its shaft 23 carrying crank 24 on its end.

The carriage 17 is fitted with four pipes 25 in which the guide-rods 26 can slide which support the elbow support means. This elbow-support means is composed of two parts 12, 22 which

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are foldable and pivoted at 27. A lever 29 for instance can be supported on the rack 29 in position 29'. Rack 29 contains a number of holes 30 and a stud bolt holding lever 29 in position 29' can be put in. Thereby, the elbow support 12 can be held in an inclined position with respect to the only vertically movable elbow supporting member 28 by holding means 29, 29.

Rod 31 is fitted with a thread and axially movable but not capable of being turned within the spindle 32 having inner threads. The spindle can be manually turned by means of crank 33 connected to the spindle by means of cardan-joints 34, 35 and coupling rod 36. Frame 10 of the table has slots 37. Carriage 17 can be secured against unintended horizontal motion by pressing it tightly against the side wall 40 by means of a wing headed nut 38 and bolt 39 which passes through slot 37.

The knee support means is similar to the elbow-support means and consists of two foldable parts 13, 41. The knee supporting member 41 is guided by means of rods 42 within vertical pipes 43 that are fixed in the frame 10. The threaded rod 44 and a spindle 45 having an inner thread serve for altering the height of the knee supporting member 41, the spindle 45 being turned by crank 47 and shaft 46. The knee support 13 can be raised to the inclined position shown in broken lines in Fig. 2.

The shank support 14 is connected by pivots 48 to knee support member 41. The rods 50 are linked by pivoted rods 49 to the shank support 14 and slidably engage a rod 52 in slots 51. The rod 52 extends horizontally in a pipe 53 which is supported in frame 10, the rods 50 sliding on the ends of the pipe 53. Rod 52 has a head 54 on one end. Its other end is equipped with thread 55 bearing a nut 56 capable of being turned by hand and serving as holding means. The rods 50 are pressed against the ends of pipe 53 by turning the nut 56, thus the rods being held in the adjusted position by friction. The broken lines 14', 50' of Fig. 2 show the adjusting range of the shank support. Middle part 57 of the shank support 14 is removable. This feature is important for medical applications in connection with obstetrics.

I claim:

1. A table for treating a patient in crouching position, comprising, in combination, an elongated supporting frame; a knee supporting member vertically movably mounted on one end of said supporting frame; a shank supporting member pivotally mounted on said knee supporting member projecting beyond said one end of said supporting frame, said shank supporting member being tiltable about a transversal horizontal axis from a downwardly extending inoperative position to an upwardly extending operative position; carriage means horizontally longitudinally movably mounted at the other end of said supporting frame for manual movement towards and away from said other end of the same; an elbow supporting member vertically movably mounted on said carriage means; a head support vertically movably mounted on said elbow supporting member; first manually operated means mounted on said supporting frame means engaging said knee supporting member for vertically moving the same; second manually oper-

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ated means mounted on said carriage means and engaging said elbow supporting member for vertically moving the same; third manually operated means mounted on said elbow supporting member and engaging said head support for vertically moving the same; and clamping means mounted on said supporting frame means for holding said shank supporting member in said operative position.

2. A table for treating a patient in crouching position, comprising, in combination, an elongated supporting frame; a knee supporting member vertically movably mounted on one end of said supporting frame; a knee support pivotally mounted on said knee supporting member tiltable about a transversal horizontal axis from a horizontal position to an inclined position in which the end thereof located nearer to said one end of said supporting frame is higher; first manually operated holding means securing said knee support in said inclined position; a shank supporting member pivotally mounted on said knee supporting member projecting beyond said one end of said supporting frame, said shank supporting member being tiltable about a transversal horizontal axis from a downwardly extending inoperative position to an upwardly extending operative position; carriage means horizontally longitudinally movably mounted at the other end of said supporting frame for manual movement towards and away from said other end of the same; an elbow supporting member vertically movably mounted on said carriage means; an elbow support pivotally mounted on said elbow supporting member tiltable about a transversal horizontal axis from a horizontal position to an inclined position in which the end thereof located nearer to said other end of said supporting frame means is higher; second manually operated holding means securing said elbow support in said inclined position; a head support vertically movably mounted on said elbow supporting member; first manually operated means mounted on said supporting frame means engaging said knee supporting member for vertically moving the same; second manually operated means mounted on said carriage means and engaging said elbow supporting member for vertically moving the same; third manually operated means mounted on said elbow supporting member and engaging said head support for vertically moving the same; and clamping means mounted on said supporting frame means for holding said shank supporting member in said operative position.

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