Sept. 24, 1940. G. F. RUNGE 2,215,884

HEIGHT MEASURING DEVICE

Filed May 6, 1939

Fig. 2

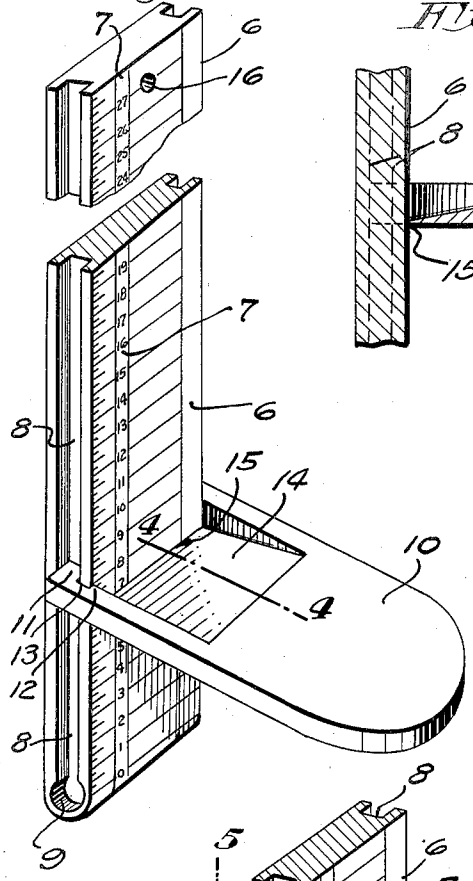


Fig. 4

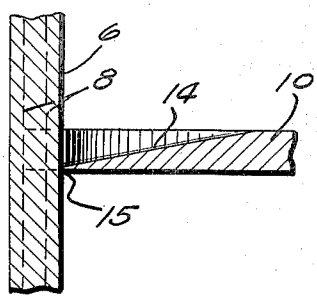


Fig. 1

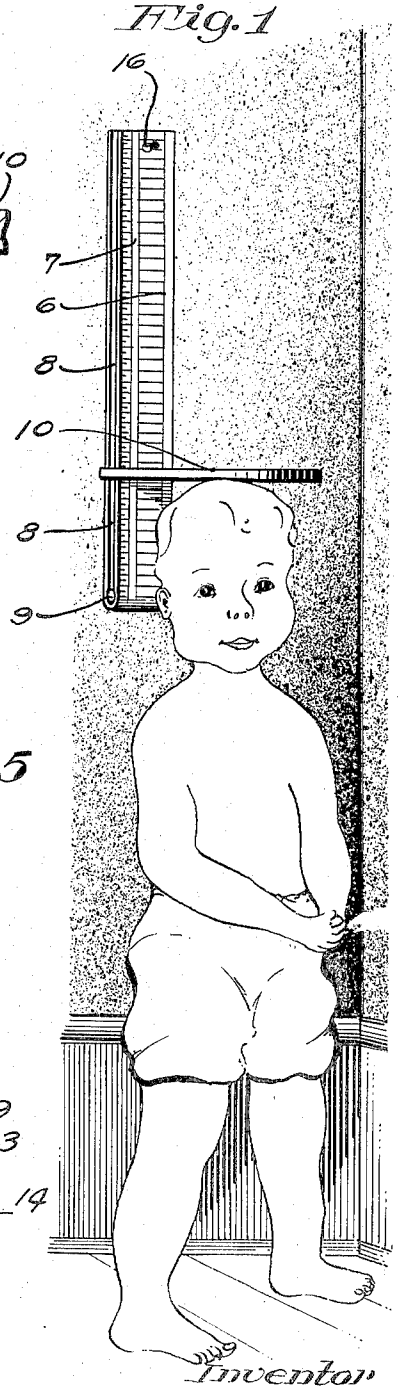


Fig. 5

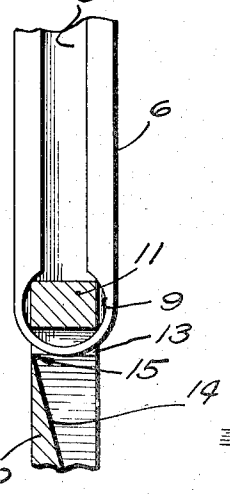
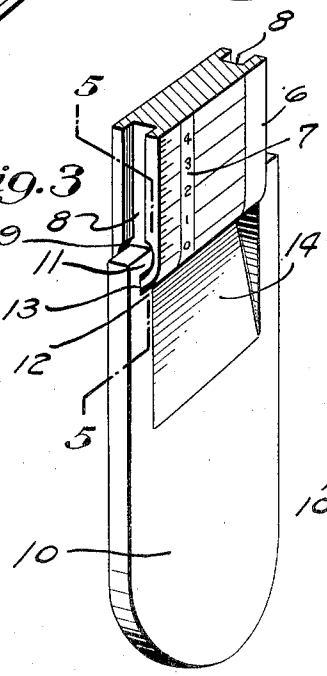


Fig. 3



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UNITED STATES PATENT OFFICE

2,215,884

HEIGHT MEASURING DEVICE

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Application May 6, 1939, Serial No. 272,248

4 Claims. (Cl. 33—169)

My invention provides an extremely simple and highly efficient device especially adapted for use in measuring the height and keeping track of the growth of infants or young people, but which is, of course, capable for use in measuring the height of grown persons. This device is of very simple construction, capable of being hung on the wall entirely out of the way but ready for use whenever desired. The complete device involves only two elements, to wit, a graduated board or body member, and an altitude plate, both of which elements may be made of wood or other materials. These elements are so designed and cooperatively assembled that they may be quickly adjusted for use.

A preferred form of the device is illustrated in the accompanying drawing wherein like characters indicate like parts throughout the several views.

Referring to the drawing:

Fig. 1 is a perspective showing the device hung on the wall and used to measure the height of a child;

Fig. 2 is a perspective view of the device adjusted for use but with some parts broken away and some parts sectioned;

Fig. 3 is a view corresponding very much to Fig. 2 but showing the altitude plate dropped to inoperative position in the plane of the graduated board;

Fig. 4 is a fragmentary section taken on the line 4—4 of Fig. 2; and

Fig. 5 is a fragmentary section taken on the line 5—5 of Fig. 3.

The board, indicated by the numeral 6, and assumed to be of wood, is vertically graduated to indicate lineal measurements, the said graduations being preferably in inches and fractions thereof, as indicated at 7. In its longitudinal edges the board is formed with deep grooves 8 that are open at the upper ends of the board, but at their lower ends terminate in enlarged seats or extremities 9.

The altitude plate 10, also assumed to be of wood, is formed with laterally spaced inwardly projecting lug-forming trunnions 11, with stop shoulders 12 and with intervening notches 13. Between the stop shoulders 12 the board is reduced by a beveled portion 14 that forms a quite sharp edge 15 adjacent to the bottom of the plate. The plate 10 is considerably wider than the board 6. The notches 13 and the trunnions 11 project beyond the sharp edge 15. The spacing of the opposed trunnions 11 is such that the plate 10, when in a horizontal position or perpendicular to the face of the board, can be moved bodily downward, causing the trunnions 11 to enter the upper extremities of the grooves 8 and the notches 13 to receive the face flanges of the board.

When the parts are thus assembled and the outer edge of the plate 10 is slightly raised, the said plate can be slipped downward to any desired position or moved upward to any desired position on the board. When the plate is released to the action of gravity, the lugs 11 and the shoulders 12 will grip the front flanges of the board and hold the board in the set position perpendicular to the face of the board. This gripping action is further facilitated by making the trunnions 11 rectangular in cross section so that they, together with the square shoulders 12, have a good biting action on the flanges of the board. Also, the edge 15 may engage the face of the board.

The purpose of beveling the altitude plate as described is to leave the reading view looking downward on the plate at the bottom of the plate and, therefore, give the same kind of reading that would be given by looking upward from below the plate. When the plate is moved downward to the extreme position where the trunnions 11 enter the enlarged grooves or cavities 9, the plate will drop under the action of gravity into the position shown in Figs. 3 and 5, where it will be in the same plane as the board and flat against the wall on which the board is hung.

To hang the board, it is shown as provided near its upper end with a hole 16 through which a nail, or the like, may be passed into the wall or support to hang the board at the desired altitude free for removal from the wall when desired.

By reference to Figs. 2 and 3 it will be noted that in this particular graduation of the board, the zero mark begins at the bottom of the board or at the lowest position which the altitude plate can occupy while held in a horizontal position. When the board is thus graduated, the device will usually be hung so that, with the altitude plate at zero, the initial or first measurement of the child will be given. When thus hung, as the child grows, the graduations will progressively indicate the growth. Of course, to get the actual height of the child, the distance the zero on the board is from the floor will have to be added to the growth indication.

The device described has been treated as made of wood and in practice that has been found very desirable; but, nevertheless, both elements of the

board may be made of metal either cast or stamped sheet metal.

What I claim is:

1. A height measuring device involving a graduated board having longitudinal edge grooves, and an altitude plate formed with laterally spaced end trunnions arranged to embrace the board and to slide in the grooves thereof and to hold the altitude plate in a projected position, said plate having a reading surface co-operating with the graduations of said board, said reading surface being formed by bevelling the top surface of said altitude plate down to an edge located at the under surface of said plate and adjacent to the graduated face of said board.

2. A height measuring device involving a graduated board having longitudinal edge grooves terminating at their lower extremities in enlarged trunnion seats, and an altitude plate formed with laterally spaced end trunnions arranged to embrace the board and to slide in the grooves thereof, said plate further having stop shoulders spaced from said trunnions by grooves that receive the edge flanges of said board and assist in holding the altitude plate in a projected position, said plate having a reading surface co-operating with the graduations of said board.

3. The structure defined in claim 2 in which the grooves of said board are open at their upper extremities for the initial insertion of said lugs into said grooves.

4. The structure defined in claim 2 in which said trunnions are rectangular in cross section.

GEORGE F. RUNGE.