Dec. 31, 1963 J. N. SAYLES 3,115,726

STABILIZER PLATE FOR SCREED CHAIRS

Filed Feb. 16, 1962

FIG. 1

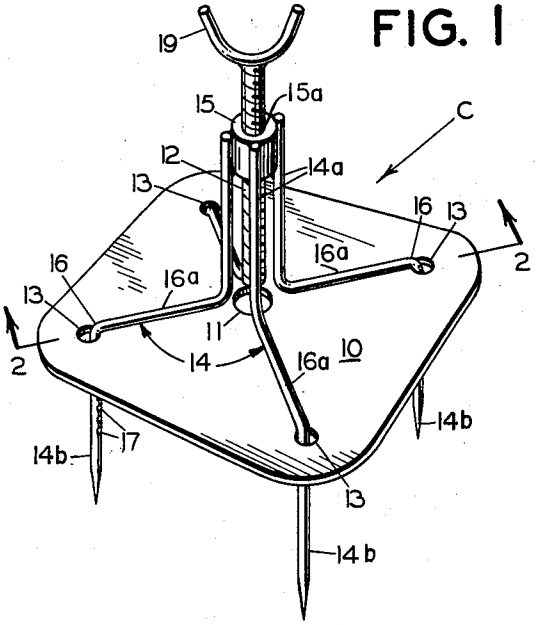
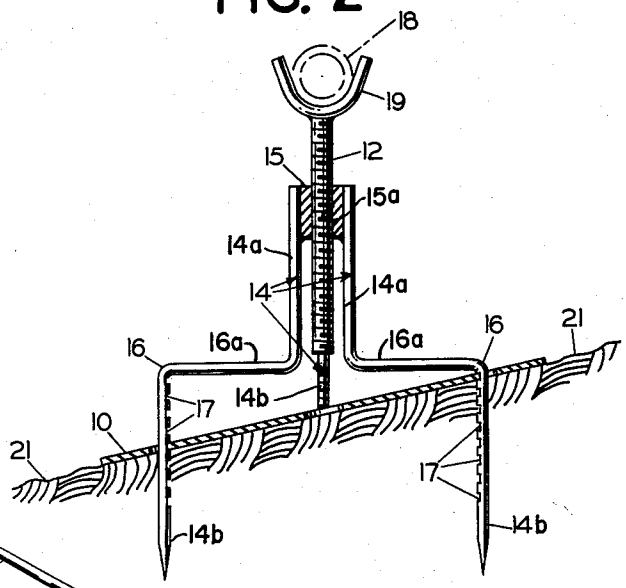


FIG. 2



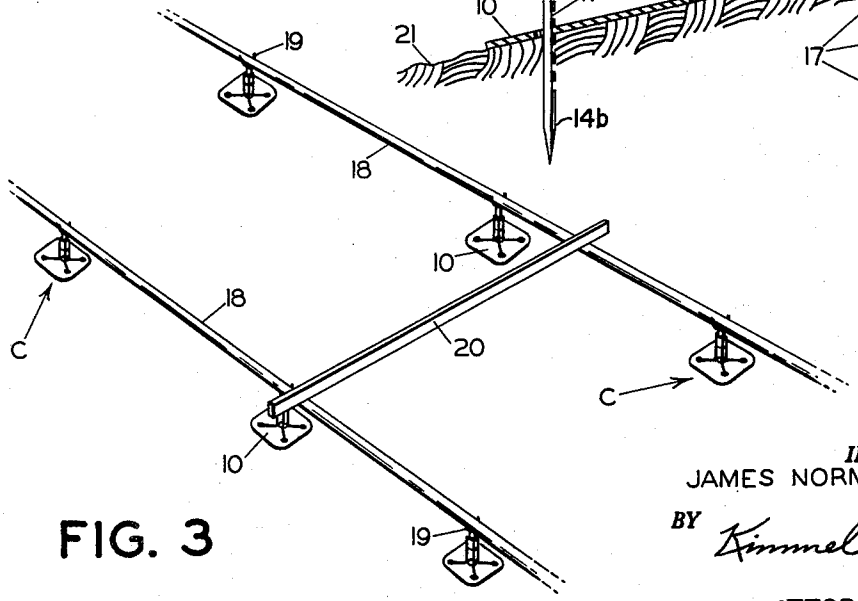


FIG. 3

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STABILIZER PLATE FOR SCREED CHAIRS

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This invention relates to an improvement in screed chairs used in the leveling, or even grading, of poured fresh concrete, or cement, where the base, usually dirt or soil, is soft.

A primary object of this invention is the provision of a stabilizing plate to be used on standard pre-existing screed chairs or may be made a part of special screed chairs at time of manufacture.

Another object of this device resides in the use of the stabilizing plate, preventing undesirable settling, or shifting, of the screed chair, or holder, within the soft soil, or base, by the legs of said screen chair, it being noted that any undesirable setting, or shifting, results in uneven or improperly graded cement or concrete work.

A further object of this device is the provision of such a stabilizing plate which may be easily and quickly removed, or separated, from the basic screed chair, when not in use, for more convenient storage, or the stabilizing plate may be used with other screed chairs, if desired.

Another object resides in the fact that, with the use of the instant invention, screed chairs may now be successfully used on sloping grades, where formerly they could not.

Still other objects will in part be obvious and in part pointed out hereinafter and shown in the accompanying drawing wherein:

FIGURE 1 is a perspective view of this device on a standard screed chair;

FIGURE 2 is a cross-sectional view taken substantially along line 2—2 of FIGURE 1, as viewed in the direction of the arrows, illustrating the use of this device on a screed chair, making possible the use of the screed chair on a sloping grade; and

FIGURE 3 is a perspective view of several screed chairs in place supporting the parallel screed members with the concrete or cement leveling or rodding member shown on top of the two screeds.

Similar reference characters refer to similar parts throughout the several views of the drawing.

This invention consists of a generally square shape metal plate **10** through which are five holes. One large hole **11** is formed in the geometrical center of the plate **10** through which a height adjusting worm screw **12** of the screed chair generally indicated at C operates freely without any interference from the plate **10**. Located near each corner of the plate **10** is a screed chair leg hole or opening **13** through each of which one screed chair leg **14** runs. Vertically extending leg means forming portions **14***a* of screed chair legs **14** run along the outside of and are integral with a stationary hub **15** having a vertical threaded bore **15***a*, through which height adjusting worm screw **12** is rotated to adjust to various heights. Radially extending, horizontally disposed, leg downwardly depending leg portions **14***b* and vertically extending leg portions **14***a* to spaced depending screed chair leg portions **14***b* at a suitable distance from the center member **15**, being bent downwardly at **16**, aligning the portions **14***b* with the screed chair leg holes **13**.

Located just below the bend **16** each depending leg portion **14***b* is provided with a multiplicity of notches **17** on the inward side of said legs. Notches **17** serve to retain the stabilizing plate **10** in a suitable portion by the inward spring-like tension exerted by legs **14**.

In the use of this device, stabilizing plate **10** is fitted on the screed chair by placing the depending screed chair leg portions **14***b* through the appropriate screed chair leg holes or openings **13**. Stabilizing plate **10** is pushed upward until one of the screed chair leg notches **17**, as desired, hooks over the plate **10** at each screed chair leg hole **13**. Inward spring-like tension of each screed chair leg **14** holds the plate **10** within the notches **17**.

Referring specifically to FIGURE 3, the screed chairs C are suitably placed in two parallel lines and screeds **18** are placed within the U shape yoke **19** of the screed chair as shown best in FIGURE 2. This now provides the usual arrangement for leveling, or grading, the freshly poured cement by use of the rodding member **20** when the cement is properly "set."

The function of stabilizing plate **10** is to prevent wobbling and settling of the ordinary screed chair when it is used in dirt or soft soil. This is done by the stabilizing plate **10** lying flat on top of the soil. At present, conventional screed chairs wobble and settle to an undesirable depth and are unreliable in general and cannot be used in most cases of dirt or soil bases.

FIGURE 2 shows the use of notches **17** when it is desired to use the screed chairs C on a sloping grade **21**. The proper notch **17** of each depending screed chair leg portion **14***b* is selected, so that, the plate **10** will lay flat on the sloping grade **21** and thereby hold the screed chair C in its near vertical position so that it may best retain the screed **18** within the holding yoke **19**. The standard screed chair cannot be used on a sloping grade, but with the proper relation between the stabilizing plate **10** and the most suitable notches **17** this is now possible.

It is to be indicated that while the invention has hitherto been described particularly in connection with an adjustable screed chair, it is equally adaptable to screed chairs having no adjustment feature, in which case, the conventional intersecting crossed legs are bent to form shoulders, the portions of the legs below the shoulders are notched as in the previous modification, and the stabilizing plate **10** is employed as in the foregoing modification. Obviously, in the absence of the threaded adjusting screw **12**, center hole **11** may be omitted.

As many embodiments may be made of this inventive concept, and as many modifications may be made in the embodiment hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative, and not in a limiting sense.

What is claimed:

1. In combination, a screed chair comprising at least three horizontally disposed leg portions each having outer ends and inner ends, said inner ends being adjacent each other and said horizontally disposed leg portions extending radially outwardly therefrom, depending leg portions having inner sides and being formed of a semi-resilient material, one of said depending leg portions extending downwardly from each of said outer ends of said horizontally disposed leg portions, a substantially planar stabilizing plate having means defining openings, each of said openings in said plate receiving one of said depending leg portions, means defining a plurality of vertically spaced notches on said inner side of each depending leg portion, said means defining each of said openings in said stabilizing plate being resiliently engaged by a selected notch on its associated depending leg portion to hold said stabilizing plate in a chosen angular relationship, and means for supporting a screed, said last-mentioned means being connected in vertically spaced relationship to said inner ends of each of said horizontally disposed leg portions.

2. A structure in accordance with claim 1 wherein

said means for supporting a screed includes a central hub having a vertically extending bore defined therein, a screed supporting member received in said bore in vertically adjustable relationship, and vertically extending leg means having upper and lower ends, said upper ends being secured to said hub and said lower ends being secured to said inner ends of said horizontally disposed leg portions.

References Cited in the file of this patent

UNITED STATES PATENTS

1,541,302	White	June 9, 1925
1,863,115	Heltzel	June 14, 1932
2,262,704	Tompkins et al.	Nov. 11, 1941
2,634,603	Byars et al.	Apr. 14, 1953
3,006,115	Hillberg	Oct. 31, 1961