Aug. 5, 1969 C. M. GUILLIAMS 3,458,964

ADJUSTABLE SCREED CRADLE

Filed Nov. 24, 1967

FIG. 1.

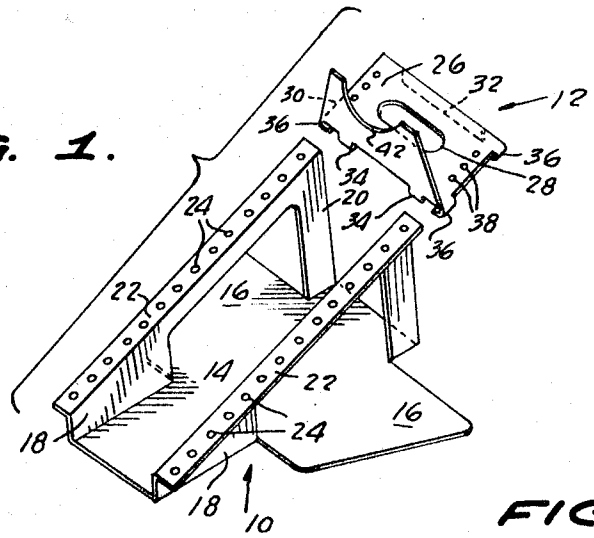


FIG. 2.

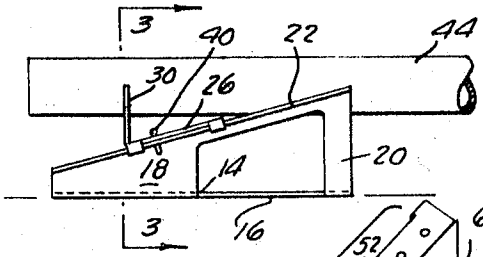


FIG. 3.

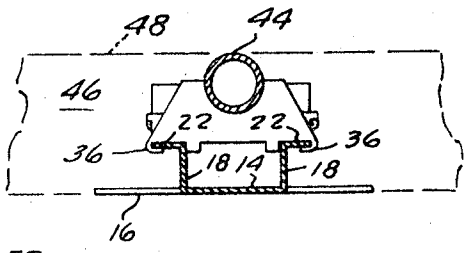


FIG. 4.

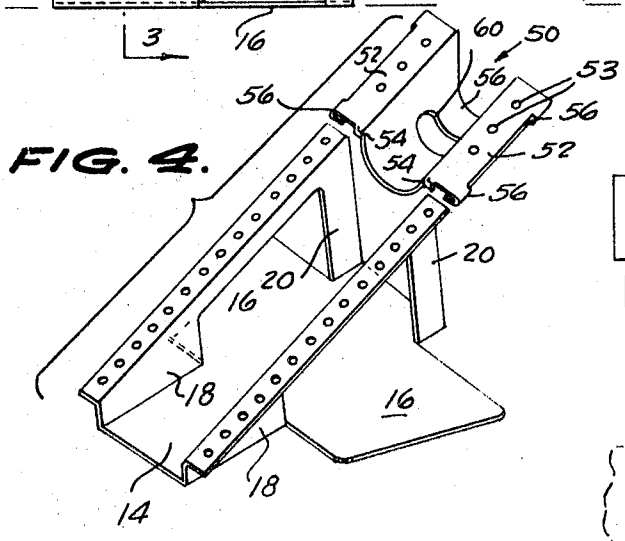


FIG. 5.

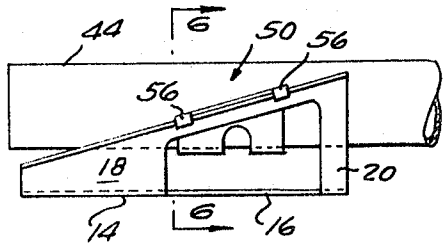
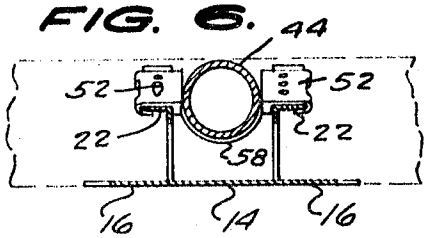


FIG. 6.



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ADJUSTABLE SCREED CRADLE

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U.S. Cl. 52—365 3 Claims

ABSTRACT OF THE DISCLOSURE

A screed cradle comprising: a flat base plate; spaced, parallel rails inclined to said plate and supported thereon; a carriage slidable on said rails and extending therebetween, said carriage having means to support a screed parallel to said base plate while said carriage is on said rails.

When a concrete floor of any substantial thickness is to be poured there is a definite problem in assuring that the thickness of concrete poured is correct and that the floor is reasonably level. To do this, "screeds" are used. The screed itself may be cylindrical (pipe) or it may be rectangular (wood) or it may be of metal in any of the generally rolled shapes. This application, as a matter of convenience, shows the screed as a length of cylindrical pipe but with minor modifications any other form may be used.

It is essential that the screeds as distributed over the base of the floor to be poured should project as a level surface and that the level surface should approximate the desired thickness of the floor above the base material. The base material may be a wooden or metal form or it may be a fill of grout, cinders or like material, and in the case of grout, cinders or like material, it is, today, rather common practice to overlay the base surface with a sheet-like moisture barrier such as polyethylene. When this is done, and it is by no means uncommon practice, such a barrier should remain imperforate.

The present invention is concerned not with the screed itself but with an adjustable support which will hold the screed not only level but at a desired spacing from the base of the form.

It is particularly an object of this invention to provide a screed cradle which does not depend on any particular type of flooring for the mold; which will not perforate a moisture barrier covering the bottom of the mold; and which has a wide range of vertical adjustability with convenient, positive securement of the parts in adjusted position.

The above and other objects will be made clear from the following detailed description taken in connection with the annexed drawing, in which:

FIGURE 1 is a perspective view of one form of improved screed support;

FIGURE 2 is a side elevation of the support shown in FIGURE 1;

FIGURE 3 is a section on the line 3—3 of FIGURE 2;

FIGURE 4 is a perspective view similar to FIGURE 1, showing a different form of support;

FIGURE 5 is a side elevation of the support of FIGURE 4; and

FIGURE 6 is a section on the line 6—6 of FIGURE 5.

As shown in FIGURE 1, the screed cradle is made up of two parts, namely, a base portion generally designated **10** and a carriage generally designated **12**. The base portion **10** comprises a base plate **14** having outstanding wings **16** and upstanding leg members **18** and **20**. The upstanding leg portions **18** and **20** are connected by outwardly extending flange members **22** which constitute inclined rails and which have a series of perforations **24**, for a purpose presently to be described.

The carriage **12** has a base plate **26** with a central opening **28** and an upstanding flange **30** bent with reference to the base plate **26** so that it occupies a vertical plane even when the base plate is mounted on the inclined rails **22**.

Opposite the upstanding flange **30**, the base plate **26** is provided with a bent-over stiffening flange **32** which extends from the opposite side of the base plate **26** from that of the upstanding flange **30**.

The base plate **26** is provided with a pair of tongues **34** forming downward extensions on the flange **30** and spaced so that their outer edges will fit between the inner edges of the rails **22**. The extremities of the stiffening tongue **32** are similarly spaced. At the outer corners of the base plate **26** there are formed tongues **36** which are bent in U-formation so as to encompass the outer edges of the rails **22**. Perforations **38** are formed in each margin of the base plate **26** and are located for registry with the holes or apertures **24** in the rails **22**.

When the lugs **36** are engaged with the rails **22**, as shown in FIGURE 2, the carriage **12** is slidable on the rails and when adjusted to the correct height, a nail, cotter pin or other locking means is dropped through registering perforations **38** and **24** to arrest any further upward or downward sliding movement. In FIGURE 2, a common nail **40** is illustrated.

The upper edge of the flange **30** is cut away on an arc **42** and the bottom of the arc is spaced sufficiently above the base plate **26** so that when the carriage **12** is on the rails **22**, the bottom of the cut **42** will be level with the opposite edge of the plate **26** so that a screed **44** placed thereon will be supported between the flange **30** and the opposite edge **26'** of the base plate **26**, the relationship being illustrated particularly in FIGURES 2 and 3.

When the carriage **12** is adjusted on the rails **22** so that the uppermost portion of the screed **44** is at the desired height, concrete **46** is poured so as to cover the base **10**, the carriage **12** and the screed **44** up to its upper surface **48** which is even with the uppermost portion of the screed **44** and, of course, with similar uppermost portions of other screeds **44** spaced about the floor to be poured.

FIGURE 4 shows a variation in which the base member **10** is identical with that of FIGURE 1 and like reference numerals are used on the same parts. A carriage generally designated **50**, however, is employed with this form and has rails **52** equipped with inside lugs **54** and outer lugs **56** corresponding respectively with the lugs **34** and **36** of FIGURE 1, and the rails **52** are provided with perforations **53** similar in location and function to the perforations **38** formed in the carriage **12**.

The rails **52** are joined by a U-shaped portion **58** having a substantially central opening **60** to define a trough which, as shown in FIGURE 5, has a level bottom when the carriage **50** is engaged with the rails **22**. The carriage **50** is held in adjusted position by a nail or cotter pin **40**, as described with reference to FIGURE 2, and as shown in FIGURE 6. With the screed **44** in position, concrete **46** is poured until its upper surface **48** is even with the uppermost surface of the screed **44**.

In use, it is optional with the contractor whether to withdraw the screeds **44** before the concrete fully has hardened and to fill up the trough, thereby created with additional concrete or to leave the screeds **44** in place, where they do perform a certain reinforcing function.

By varying the spacing of the perforations **24** as between the rails **22** and by spacing the perforations **38** as between the two sides of the carriage **12** or the perforations **54** as between the two sides of the carriage **50**,

extremely close adjustments can be made with the option of passing the cotter pin through either of the rails **22**.

The openings between the legs **18** and **20**, the opening **28** in the carriage **12** and the opening **60** in the carriage **50** all contribute to the function of the device by facilitating the flow of concrete through and around the parts with minimization of voids.

What is claimed is:

1. A screed cradle comprising: a base plate having a pair of spaced upright side walls, the upper edges of said side walls being inclined toward the base plate and having laterally extending flanges; and a screed carriage slidable on said flanges and having guide means engaging said flanges.

2. The screed cradle of claim **1**, in which said screed carriage has an upturned flange to bring a screed supported thereby parallel to said base plate.

3. The screed cradle of claim **1**, in which said screed

carriage has, intermediate its areas of engagement with the flanges of said upright walls, a screed supporting trough, said trough having its bottom parallel to said base plate.

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ALFRED C. PERHAM, Primary Examiner

U.S. Cl. X.R.

52—678; 248—70, 300