June 17, 1924. 1,497,962

H. A. TRESTER

ROAD FORM

Filed May 20, 1920

Fig. 1.

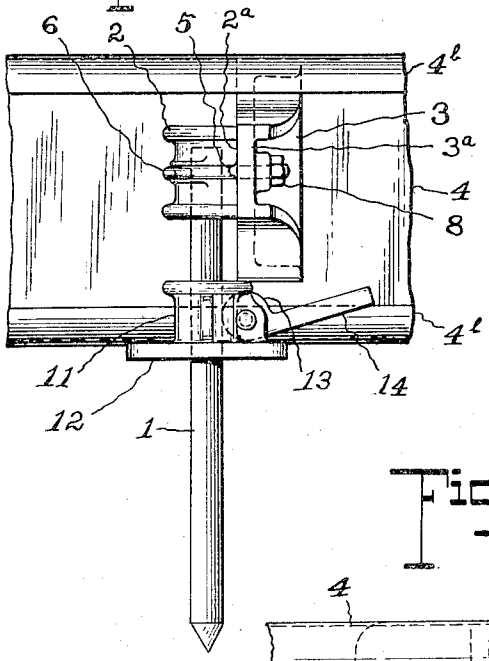


Fig. 2.

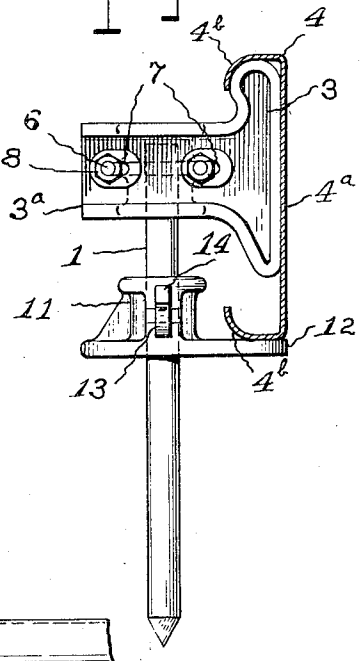


Fig. 3

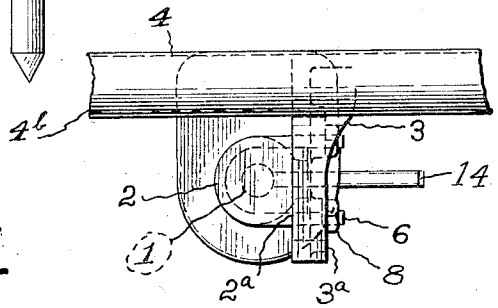


Fig. 4.

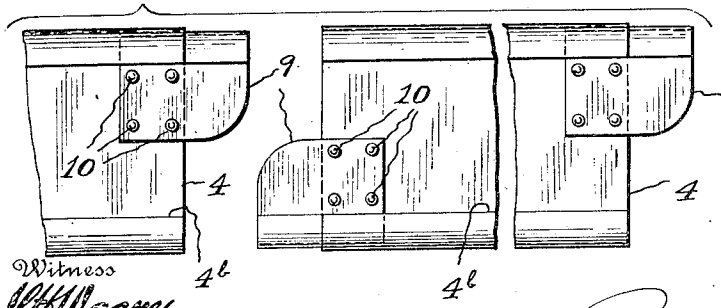
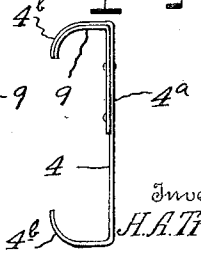


Fig. 5.



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UNITED STATES PATENT OFFICE.

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ROAD FORM.

Application filed May 20, 1920. Serial No. 382,807.

To all whom it may concern:

Be it known that I, HERAULT A. TRESTER, citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Road Forms, of which the following is a specification.

The present invention relates to a metal form which is designed for use when constructing roads, pavements or curbing from concrete or other plastic material, and has for its object to provide a device of this character which can be quickly and accurately assembled in operative position and which will provide an effective form for shaping the concrete or plastic material in the desired manner.

Further objects of the invention are to provide a form of this character which can be used repeatedly and will be much more economical than wooden forms which must be set up and knocked down for each use thereof and rapidly deteriorate, and which can be set up with accuracy and used effectively by unskilled labor.

With these and other objects in view, the invention consists in certain combinations, arrangements and associations of the parts, as will more fully appear as the description proceeds, the novel features thereof being pointed out in the appended claims.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings, in which:—

Figure 1 is a rear elevation of a fragmentary portion of a road form which is constructed in accordance with the invention, one of the stakes and supporting hangers being shown.

Figure 2 is a transverse sectional view through the road form.

Figure 3 is a top plan view of the construction shown by Figure 1.

Figure 4 is a detail view of portions of two of the rail sections, showing the coupling means which is utilized to connect the abutting ends of rail sections when a number of the rail sections are assembled in alinement with each other.

Figure 5 is an end view of one of the rail sections.

Corresponding and like parts are referred to in the following description indicated in all of the views of the drawing by like reference characters.

Referring to the drawings, which illustrate one possible embodiment of the invention, the numeral 1 designates a stake which has the lower end thereof pointed so that it can be readily driven into the ground. The stake is preferably formed of metal and is shown as having a circular cross section. The driving head 2 is applied to the stake and this driving head serves the double function of protecting the head of the stake when it is driven in position and also of providing a means of attachment for the hanger 3.

The hanger 3 has a vertically elongated working head which supports and fits against the rail 4, and is also formed with a rearwardly extending arm 3^a which fits against the flat face 2^a of the driving head 2. The arm 3^a is provided with a horizontally disposed rib 5 which is received within a corresponding channel in the flat face 2^a of the driving head. Some suitable fastening means such as a U bolt 6 is provided for securing the hanger arm 3^a to the stake head, and the two arms of this U bolt extend through horizontal slots 7 in the hanger. Nuts 8 are fitted upon the U bolt, and it will be obvious that when these nuts are tightened the hanger will be held rigidly in an adjusted position, although when the nuts are loosened the hanger can be adjusted horizontally upon the stake within the limits defined by the possible play of the arms of the U bolt 6 within the slots 7.

The rail is formed in a number of similar and interchangeable sections 4 which can be assembled to provide a continuous rail of any desired length, said rail being supported by a plurality of the stakes 1 which are provided at necessary and proper intervals of space. The rail sections 4 have what may be termed a channel formation, the working faces 4^a thereof being substantially smooth and flat, and the longitudinal edges of the rail sections being provided with returned flanges 4^b. Opposite ends of each rail section are provided with coupling tongues 9 which are arranged at opposite sides of the section so that when assembling a number of rail sections the rail sections are reversible and it is immaterial which ends thereof are brought into an abutting relation. The coupling tongues 9 projecting

from the ends of the rail sections at opposite sides thereof, may be formed of sheet metal pieces which are curved to conform to the shape of the flanges 4^b of the rail sections, and which are secured to the rail sections by suitable fastening means such as the rivets 10. When two of the rail sections are assembled in an end to end relation the two coupling tongues 9 which are brought into operation are arranged at opposite edges of the rail and each interlock with the returned flange 4^b of the other rail. The rail sections are thus held rigidly in alinement with each other without the necessity of utilizing any bolts or other removable fastening elements. The rail sections can be readily forced together or pulled apart, and there is no possibility of the sections being incorrectly assembled, since the sections are all similar and interchangeable, and there are no rights and lefts. The body portions of the rail sections fit against the vertically elongated working portions of the hangers 3 and are rigidly supported thereby at intervals, as indicated by Figure 2, and the upper flanges 4^b of the rail sections hook over the rounded upper ends of the hangers which are shaped to conform thereto.

A sleeve 11 or other suitable slide is mounted upon each of the stakes 1 and this sleeve is provided with a laterally extended bearing plate or pedestal 12 which may project outwardly under the lower edge of the rail. This bearing plate 12 may also serve to engage the top of the ground to support the stake at the proper elevation and prevent it from sinking after it has once been properly positioned. A suitable lock or clamp such as the cam 13 is provided for holding the sleeve 11 in an adjusted position, said cam being provided with an operating lever 14 and being preferably arranged in such a manner that an upward movement of the locking member will serve to throw the cam into operative position. A possible contact of the lever with the surface of the ground or with some obstruction will thus serve to force the cam more firmly into locking position instead of to release the same, as will also any downward pressure on the stake.

In using the form a number of the stakes 1 will be driven into the ground at suitable intervals along the line which is to be occupied by the form. These stakes carry the hangers 3 upon which the assembled rail sections 4 can be placed. These rail sections can then be brought into accurate alinement by adjusting the hangers 3 horizontally upon the stakes and compensation thus quickly made for any lack of alinement in the stakes 6. The base plates 12 of the sleeves 11 may be adjusted to support the lower edges of the rail, and may rest upon the surface of the ground so as to prevent sinking of the stakes.

The channel rails are so shaped that when using a tamping machine or any other device which rides upon the rails, any stone, concrete or the like resting upon the flanges will be dislodged and removed by the wheels of the machine, the flange edges being comparatively narrow. It will also be noticed that the top and bottom flanges are similarly shaped so that the rails are reversible and either flange can be used as the riding edge. This results in convenience in erection, as well as a saving, should one edge of a rail be damaged or rendered inoperative for any reason.

While I have illustrated and described one possible embodiment of the invention I do not wish to be restricted to the exact details of construction which have been shown, since it will be obvious that numerous modifications and changes can be made therein without departing in any manner from the spirit of the invention.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A form of the character described, including a stake, a separate and enlarged driving head for the stake, a hanger mounted upon the driving head, and a rail supported by the hanger.

2. A form of the character described, including a stake, a separate and enlarged driving head for the stake, a hanger projecting laterally from the stake and formed with a supporting arm fitted adjustably upon the head, a U bolt straddling the stake and clamping the hanger in an adjusted position hpon the head, and a rail supported by the hanger.

3. A form of the character described, including a stake, a flanged rail, a hanger projecting laterally from the stake and engaging a flange of the rail to support the same, said hanger having an elongated face to engage the back of the rail, and a bearing plate adjustable longitudinally upon the stake and projecting under the rail.

4. A form of the character described, including a stake, a separate and enlarged driving head for the stake, a hanger adjustably mounted upon the head, and a rail supported by the hanger.

5. A form of the character described, including a stake, a separate and enlarged driving head for the stake, a hanger formed with an arm which adjustably engages the head, clamping means for locking the arm to the head in an adjusted position, and a rail supported by the hanger.

6. A form of the character described, including a stake, a head applied to the stake and having a flat face, a hanger formed with a supporting arm fitting slidably

against the flat face of the head, one of the said members being formed with a rib and the other member with a corresponding groove, clamping means for locking the hanger in an adjusted position, and a rail supported by the hanger.

7. A form of the character described, including a stake, a head applied to the stake and having a flat face, a hanger formed with a supporting arm which fits slidably against the flat face of the head and is provided with a pair of slots, the meeting faces of the two members being provided respectively with a rib and a corresponding channel, a U bolt securing the hanger to the head, the arms of the U bolt extending through the slots of the hanger so that the hanger is laterally adjustable within the limits of the slots, and a rail supported by the hanger.

8. A form of the character described, including a stake, a hanger carried by the stake, a rail supported by the hanger, and a bearing plate adjustably mounted on the stake for movement up and down thereon and projecting under the rail.

9. A form of the character described, including a stake, a hanger carried by and projecting laterally from the stake, a channel shaped rail having the upper flange thereof supported by the hanger, and a bearing plate adjustably mounted upon the stake for independent movement up and down thereon and projecting under the rail.

10. A form of the character described, including a stake, a hanger projecting laterally from the stake and adjustable in and out thereon, a channel shaped rail having the upper flange thereof engaged by the hanger, and a bearing plate adjustably mounted upon the stake for independent movement up and down thereon and projecting laterally under the lower flange of the rail.

11. A form of the character described, including a stake, a hanger projecting laterally from the stake and horizontally adjustable thereon, a rail supported by the hanger, and a bearing plate adjustable vertically upon the stake and projecting under the rail.

12. A form of the character described, including a stake, an enlarged driving head for the stake, and a rail supporting hanger mounted upon the driving head and horizontally adjustable thereon.

13. A form of the character described, including a stake, an enlarged driving head for the stake, a rail supporting hanger mounted upon the driving head and horizontally adjustable thereon, and a U bolt straddling the stake and clamping the hanger in an adjusted position upon the head.

14. A form of the character described, including a stake, rail supporting means thereon, and a bearing plate independently adjustable up and down upon the stake and adapted to project under the rail.

In testimony whereof I affix my signature.

HERAULT A. TRESTER.