Oct. 7, 1930. W. M. GOLDSMITH 1,777,359

SLEEPER HOLDER

Filed Aug. 29, 1925 2 Sheets-Sheet 1

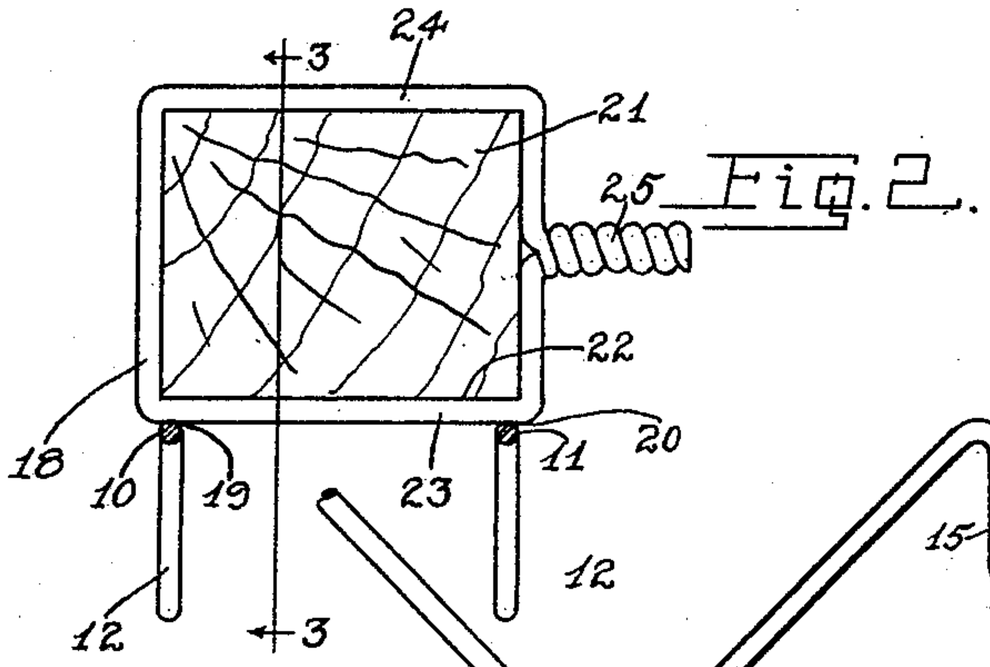

Fig. 2.

Fig. 1.

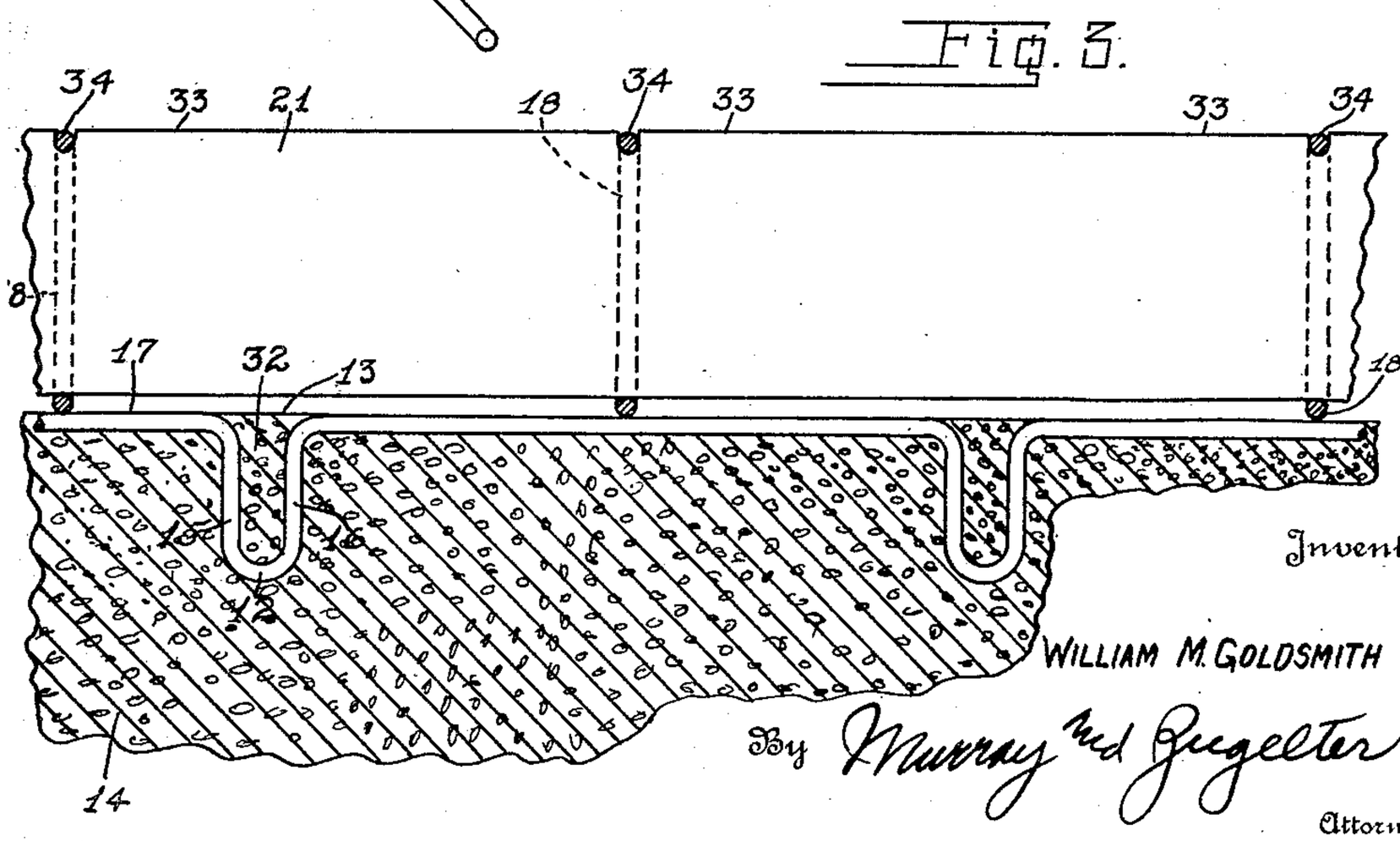

Fig. 3.

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SLEEPER HOLDER

Filed Aug. 29, 1925 2 Sheets-Sheet 2

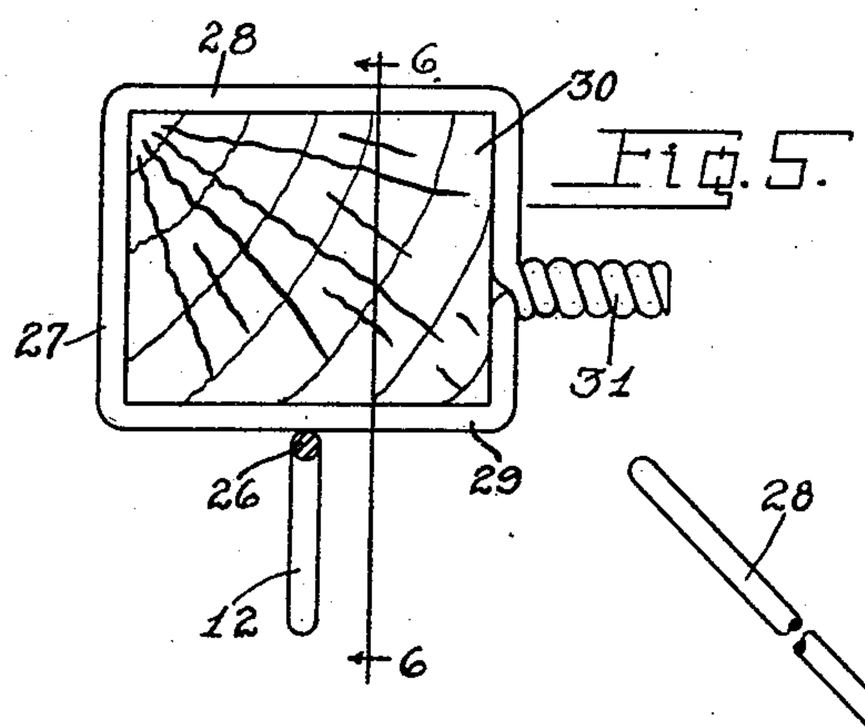


Fig. 5.

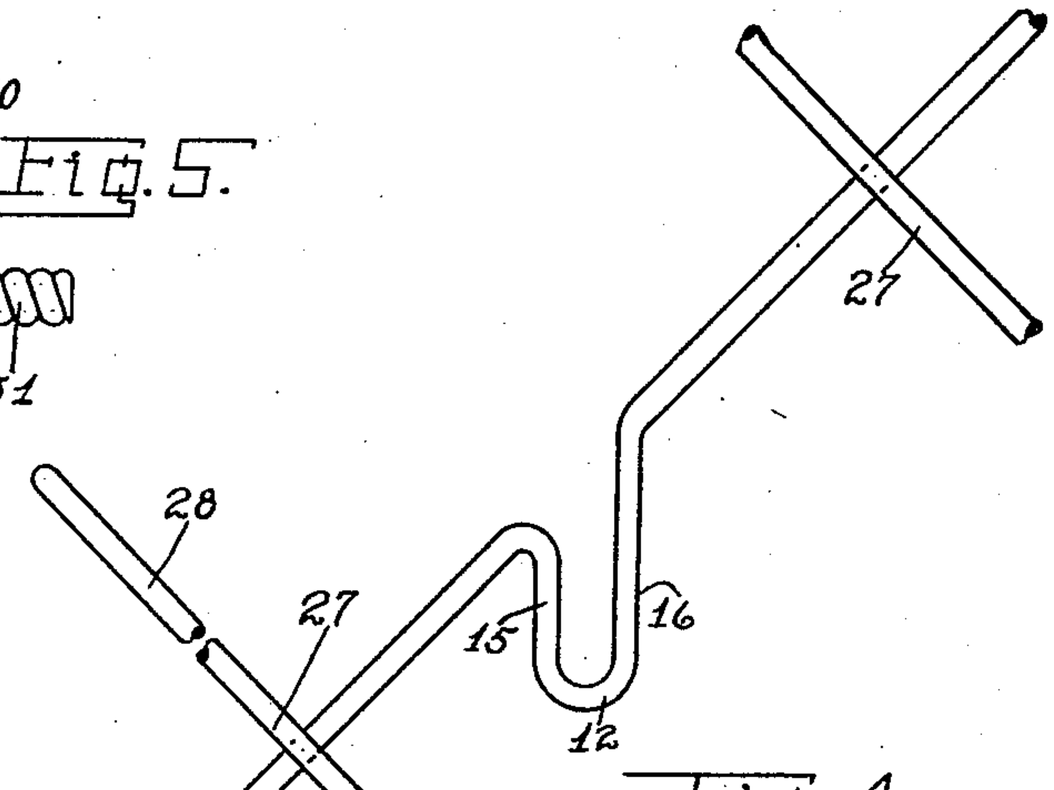


Fig. 4.

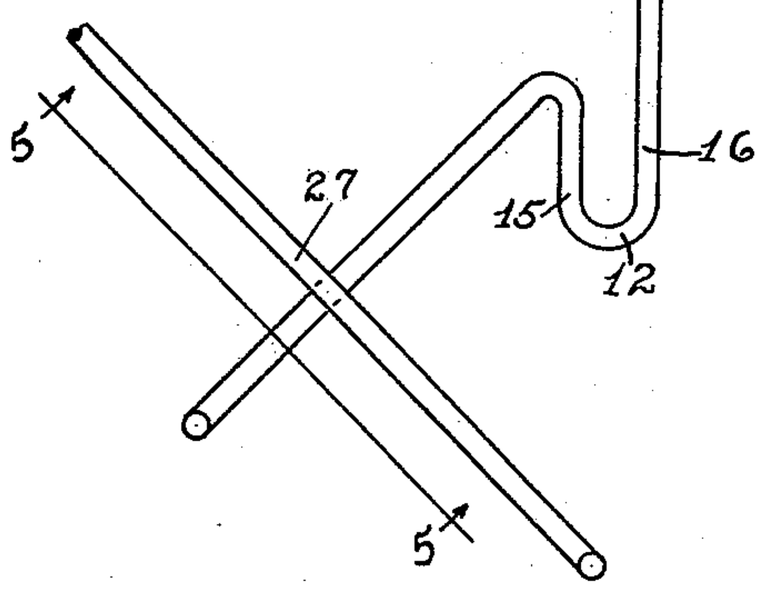
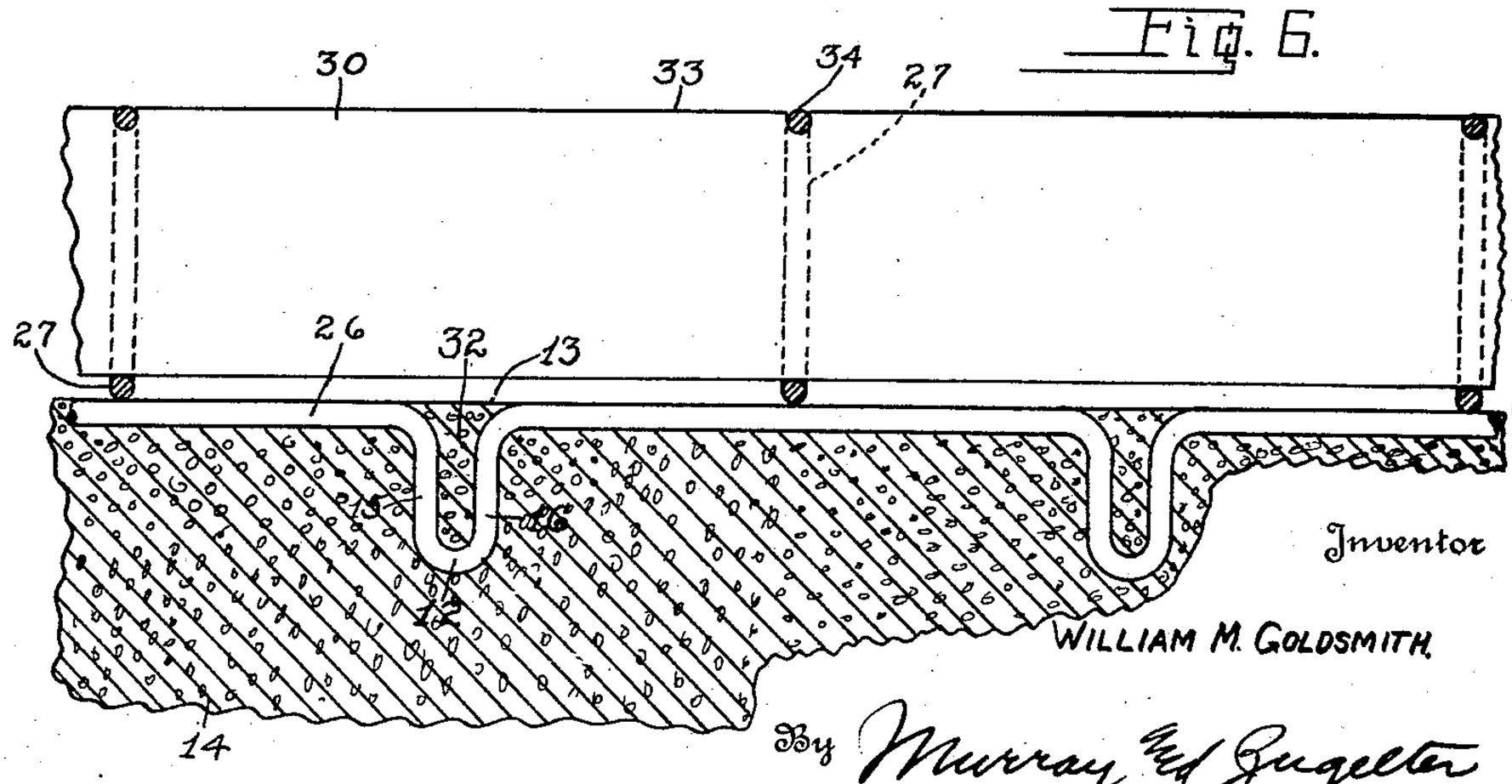


Fig. 6.



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Patented Oct. 7, 1930 1,777,359

UNITED STATES PATENT OFFICE

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SLEEPER HOLDER

Application filed August 29, 1925. Serial No. 53,229.

This invention relates to devices for bonding sleepers to the upper surface of concrete floors or the like.

An object of my invention is to provide a device for bonding sleepers to the upper surface of a concrete mass and aligning said sleepers throughout the length or width of said concrete mass.

Another object of my invention is to provide a device for accomplishing the above object wherein the cost of producing same is held at a minimum and said device can be expeditiously transported and used.

Another object of my invention is to provide a device that obviates the grating noise which quite often results when metal sleeper holders having nails driven therethrough for holding the sleeper in place, are used.

These and other objects are attained by the means described herein and disclosed in the accompanying drawings, in which:

Fig. 1 is a perspective view of a device embodying my invention.

Fig. 2 is a sectional view taken on line 2—2 of Fig. 1, showing a sleeper mounted thereon.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 2, showing same bonded to the upper surface of a concrete floor.

Fig. 4 is a perspective view of a simplified form of my invention.

Fig. 5 is a sectional view taken on line 5—5 of Fig. 4, showing a sleeper mounted thereon.

Fig. 6 is a sectional view taken on line 6—6 of Fig. 5 showing same bonded to the upper surface of a concrete floor.

My device comprises a pair of parallel wires 10 and 11 having U shaped bends 12 formed at intervals throughout their length. Each of the wires is provided with a U-shaped bend 12 at approximately the same point throughout its length. These U-shaped bends are utilized for bonding the wires 10 and 11 to the upper surface 13 of a plastic or concrete mass 14. After the concrete floor 14 has been poured, the U-shaped bends 12 are inserted into the plastic before same has set and the plastic is forced intermediate the arms 15 and 16 of the U-shaped bends 12. The wires 10 and 11 are embedded in the plastic until the upper surface 17 of each wire is flush with the upper surface 13 of the plastic 14.

At intervals throughout the length of the longitudinal wires 10 and 11, transverse or short wires 18 are secured. The wires 10 and 11 are retained in spaced relation by a series of the transverse wires 18 which are secured together at their points of intersection 19 and 20 by any suitable means, preferably spot welding. The distance between the longitudinal wires 10 and 11 may be varied to suit the sleeper it is desired to use, which are generally three or four inches in width. A sleeper 21 is mounted upon the upper surface 22 of the transverse wires 18, which transverse wires 18 are so mounted that arms 23 and 24 extend beyond the longitudinal wires 10 and 11. Arm 23 is comparatively shorter than arm 24. After the sleeper has been mounted upon the upper surface of the transverse wires, arm 24 is bent over the top of the sleeper 21 until it meets arm 23 where they are twisted, as shown at 25, for securing the sleeper to the longitudinal wires or rods 10 and 11.

In the simplified form shown in Fig. 4 I have used one longitudinal rod or wire 26 instead of the two longitudinal wires or rods 10 and 11. Wire 26, like wires 10 and 11, has a series of U-shaped bends 12 therein for bonding the said wire 26 to the upper surface 13 of a plastic or concrete floor 14. A series of transverse wires 27, similar to the transverse wire 18, having arms 28 and 29, are secured to the transverse wire 26 by any suitable means, preferably spot welding. Wire 26 is embedded in the concrete floor 14 and bonded to the upper surface thereof in the same manner in which wires 10 and 11 are bonded. A sleeper 30 is mounted upon the upper surface of the transverse wires 27 and the arms 28 and 29 of the wire 27 are bent around the sleeper 30 and the ends of the arms are twisted, as shown at 31, for securing the sleeper 30 to the longitudinal wire 26.

When the longitudinal wires of either of my devices are inserted into a plastic or concrete mass, the transverse wires are in the same plane and lie upon the upper surface of the said plastic or concrete mass. After

the concrete has set, a key 32 has been formed intermediate the arms 15 and 16 of the U-shaped bends 12 for bonding the longitudinal wires to the upper surface of the concrete. A sleeper may then be mounted upon the upper surface of the transverse wires and the arms of the said transverse wire may be bent around the sleeper and the ends of said arms may be twisted or secured together in any suitable manner for securing the sleeper to the longitudinal rods. It should be noted that by twisting the wires, the arm of said wire may embed itself in the wooden sleeper until the upper surface 33 of the sleeper is flush with the upper surface 34 of the transverse wire so that an uninterrupted surface is provided for attaching a wooden floor or the like to the sleeper.

What I claim is:

1. In a device of the class described the combination with a plastic mass, a sleeper, a longitudinally extending wire for insertion in the plastic mass, U-shaped bends in the wire for forming keys in the plastic mass for bonding the wire to the upper surface of the plastic mass, and means carried by the wire for securing the sleeper in parallelism with the wire.

2. In a device of the class described the combination with a plastic mass, a sleeper, a longitudinally extending wire for insertion in the plastic mass, U-shaped bends in the wire between the arms of which bends a key is formed for bonding the wire to the upper surface of the plastic mass, and a transversely extending wire secured to the longitudinally extending wire and adapted to be bent around the sleeper for securing the sleeper to the longitudinally extending wire.

3. In a device of the class described the combination of a pair of longitudinally extending wires, a plastic mass into which the longitudinally extending wires are to be inserted, U-shaped bends formed in the longitudinal wires at intervals throughout their lengths, the U-shaped bends forming keys for bonding the longitudinal wires to the upper surface of the concrete mass, transversely extending wires securing the longitudinal wires in spaced relation and comprising arms, a sleeper mounted on the upper surface of the transverse wires, and the arms of the transverse wires encircling the sleeper and securing said sleeper to the longitudinal wires.

4. In a device of the class described the combination of a member adapted to extend over the surface of a plastic mass, means in said member at intervals for bonding in the body of said plastic and a transverse wire secured on said member whereby a sleeper may be both positioned and secured upon the member and the surface of said plastic.

5. In a device of the class described the combination of a pair of wires secured together at an angle and adapted to be disposed on the top face of a plastic mass for positioning a sleeper, one of said wires being bent to provide a portion for bonding within the plastic mass.

6. As a new article of manufacture a sleeper holder and positioning means comprising a pair of transversely secured wires, one of said wires having a depending portion for bonding in a concrete mass whereby to accessibly anchor the remainder of the article at the surface of the mass.

7. A sleeper holder and positioning means for mounting at the surface of a plastic mass and comprising a pair of wires secured together in transverse relation intermediate their ends, one of said wires being arranged with a portion thereof disposed for bonding within the body of a plastic mass, one of said wires having a free bendable portion for receiving and positioning a sleeper on the surface of said mass.

8. In a device of the class described the combination of a plastic mass, a longitudinally extending wire, a second wire secured transversely to the first wire, both of said wires being accessibly disposed at the top surface of the mass for receiving and positioning a sleeper on the surface of the mass and a bent portion on one of said wires extending into the mass to anchor the wires and sleeper in position on the surface of the mass.

In testimony whereof, I have hereunto subscribed my name this 20th day of August, 1925.

WILLIAM M. GOLDSMITH.

CERTIFICATE OF CORRECTION.

Patent No. 1,777,359. Granted October 7, 1930, to

WILLIAM M. GOLDSMITH.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 2, line 58, claim 4, for the word "in" read on; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 9th day of December, A. D. 1930.

M. J. Moore,
Acting Commissioner of Patents.

(Seal)