Feb. 23, 1926. 1,574,328

W. E. WHITE

NAILING STRIP ANCHOR

Filed Jan. 4, 1923

Fig. 1

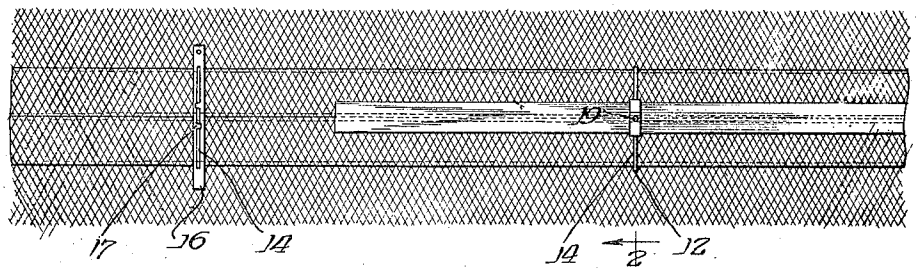


Fig. 2

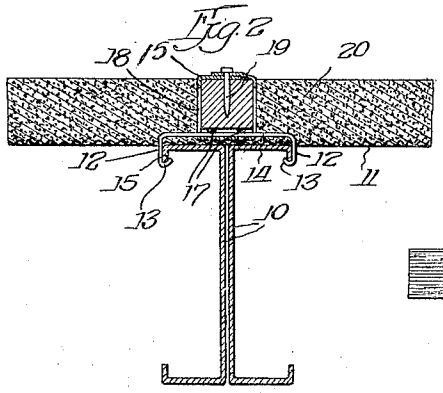


Fig. 3

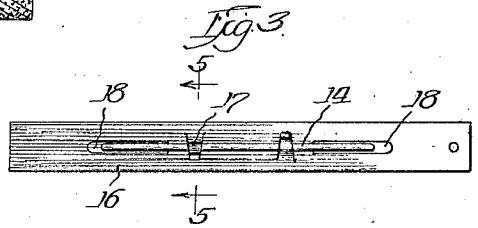


Fig. 4

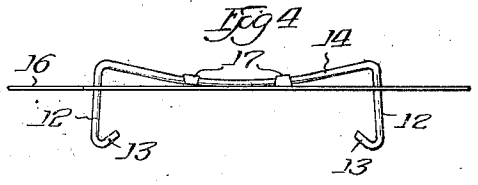


Fig. 5

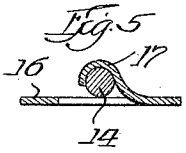


Fig. 6

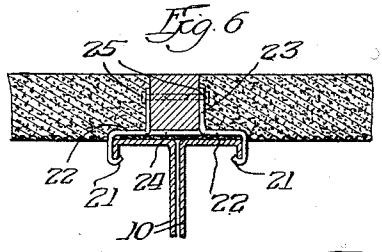


Fig. 7

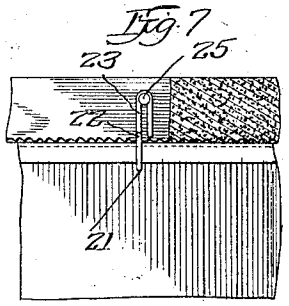
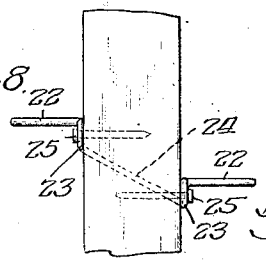


Fig. 8



Witness:

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Patented Feb. 23, 1926. 1,574,328

UNITED STATES PATENT OFFICE.

WILLIAM E. WHITE, OF CHICAGO, ILLINOIS, ASSIGNOR TO KALMAN STEEL CO., OF CHICAGO, ILLINOIS, A CORPORATION OF DELAWARE.

NAILING-STRIP ANCHOR.

Application filed January 4, 1923. Serial No. 610,625.

To all whom it may concern:

Be it known that I, WILLIAM E. WHITE, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Nailing-Strip Anchor, of which the following is a specification.

My invention relates to concrete floor construction and particularly to novel means employed for anchoring the sleepers or nailing strips therein.

In certain forms of fireproof construction it has been found desirable to employ so-called metal lumber consisting of pressed steel structural shapes such as I-beams formed by welding two pressed steel channels back to back. In this form of construction it is common to employ a metal lath and to mold thereon a section of concrete on which a wood floor may be laid. It is necessary therefor that a nailing strip be mounted in the concrete above the structural member. In order to effect this result several different expedients have been adopted all of which are open to objections.

In the construction here disclosed I provide means for rigidly securing the sleeper in position and utilize a well known means employed for securing the metal lath to the structural shape.

The invention will be more readily understood by reference to the accompanying drawings, wherein,

Fig. 1 is a fragmentary plan view showing an application of my improvement;

Fig. 2 is a sectional view somewhat enlarged on the line 2—2 of Fig. 1;

Fig. 3 is a plan view of the device in its manufactured form;

Fig. 4 is a side elevation thereof;

Fig. 5 is a sectional view on the line 5—5 of Fig. 3;

Fig. 6 is a sectional view illustrating a slightly modified form of the invention;

Fig. 7 is a view taken at right angles to that of Fig. 6, and,

Fig. 8 is a plan view of the same construction.

In the drawings it will be seen that the improvement is specifically applied to a structural shape consisting of pressed steel channels 10, placed back to back and united by welding thereby forming an I-beam. On the top of the beam is laid metal lath 11 and this is secured in place by employing a spring-wire clip consisting of legs 12, having hook ends 13, and an intermediate body or connecting member 14, which is curved from end to end, as best shown in Fig. 4. In practice this is applied by projecting one end through an opening in the metal lath and engaging the hooked end with a flange 15, of the structural member. The opposite end is then forced through an opening against the tension of the metal until the hooked end engages around a corresponding flange on the opposite side of the I-beam. To this fastening clip I apply my sleeper anchor, which consists of a flat strip of metal 16, having tongues 17 struck out therefrom which are adapted to engage over the middle portion of the body 14 of the clip. Located at a proper point between the ears 17 and the free ends of the strip are slits 18 of a length somewhat greater than the distance between the ears and the angles of the fastening clip. Thus the strip may be formed in the position shown in Fig. 4 and the strip may remain in this unexposed position until the sleeper is laid. At that time the free ends of the strip are bent upwardly and may overlap, as shown in Fig. 2, a nail 19 passing through the metal of the strip and entering the nailing strip. Thereafter concrete, indicated at 20, may be molded in place.

In the construction shown in Figs. 6 to 8 inclusive, the parts are composed of a single length of wire, the terminal portions of which are provided with hooks 21, which engage beneath the flanges of the structural member. At a point midway of the ends of the body 22 of the wire I construct loops 23, perpendicular to the plane of the floor and spaced apart a distance equal to the width of the nailing strip to be employed. A portion of wire 24 extends between the adjacent loops, said portion, as shown in Fig. 8, projecting diagonally in order that the two loops may not be directly opposite each other. By canting the fastening devices the width of the opening for the sleeper may be varied in size as required. Nails, indicated at 25, are employed for securing the loops to the nailing strip. The device being composed of a single length of wire may be cheaply constructed and for this reason presents some advantages.

In each of the constructions described the

sleeper is firmly held in position directly above the structural member and utilizes the clip which is employed for securing the metal lath in position. Other modifications than that illustrated may be made without departure from the spirit of my invention and I do not wish to be limited except as indicated in the appended claims.

One of the particular advantages in the slotting of the strip is that a standard strip may be utilized for different sizes or lengths of clips. It will be understood that the structural members vary in width according to different requirements and the fastening clips must be correspondingly varied in length. By forming the slits of adequate length in the first instance, the same straps may be attached to and employed with clips of different lengths. One of the particular objects in slitting the strips is to enable the strip to be secured underneath the clip. Thus the fastening tongues which are employed for uniting the strip and the clip have only the function of uniting the parts during the handling and installation.

I claim:

1. Means for anchoring a nailing strip to metal structural members comprising in combination, a clip adapted to span the structural member in hooked engagement with the flanges thereof, and a strap engaging the middle portion of the clip and having its free ends slotted to pass over the angles of the clip.

2. An anchoring device for nailing strips comprising a spring-metal clip adapted to engage a structural member, and a strap secured to the clip and slotted to permit of bending of the ends of the clip through the plane of the strip.

3. In a sleeper anchor the combination of a clip of U-shape and a strap arranged parallel to the base of the U, the central portion of the strap being located within the U of the clip, the ends of the strap being slotted to permit said ends to be bent to extend oppositely to the legs of the U-shaped clip.

4. Means for simultaneously securing metal lath to structural members and nailing strips upon said lath, comprising a spring-metal U-shaped clip, the legs of which are adapted to pass through the lath and engage the flanges of a structural member, and portions projecting from the middle of the base of said clip and adapted to embrace a nailing strip.

Signed at Chicago, Ill., this 30th day of December, 1922.

WILLIAM E. WHITE.