

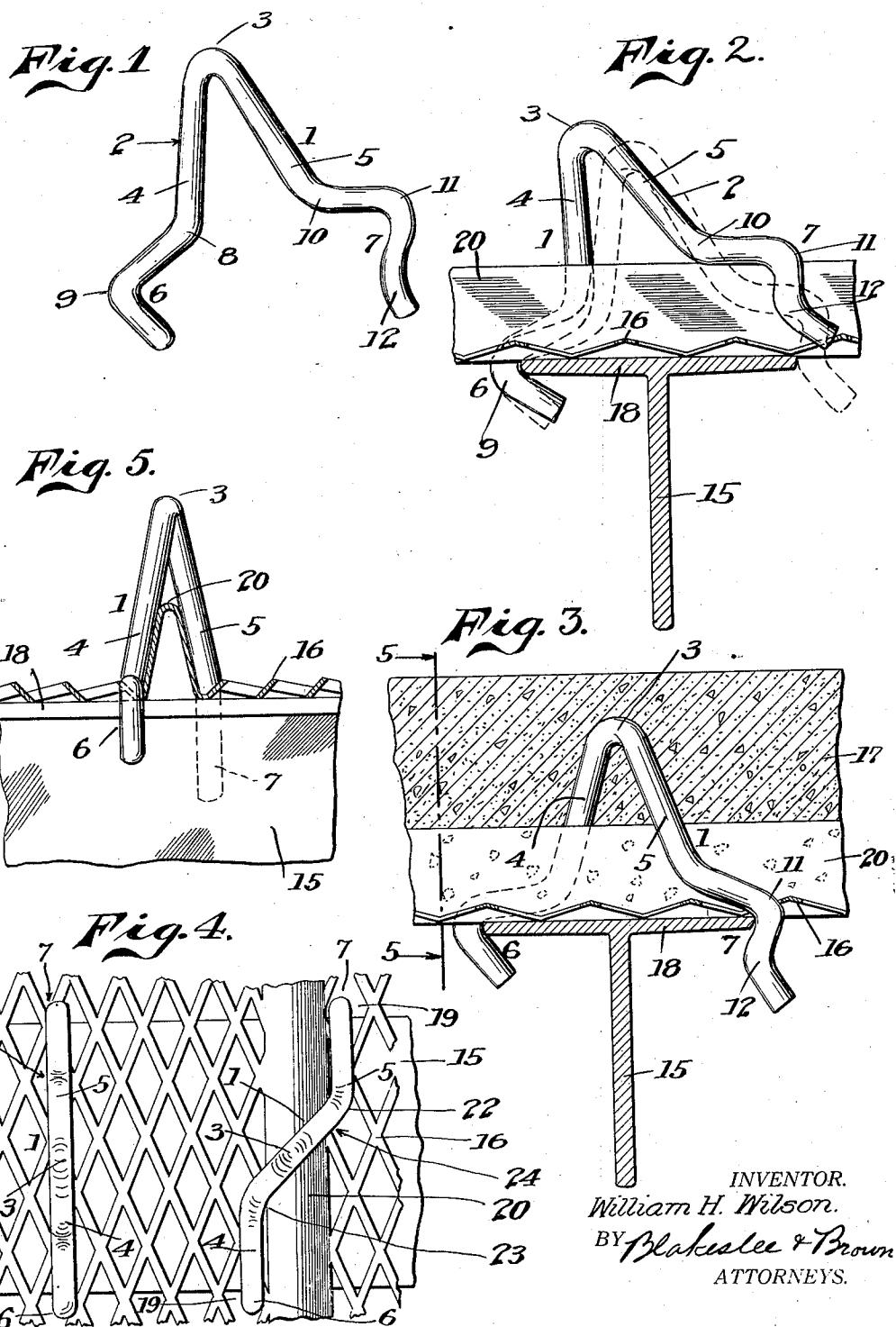
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CLIP

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UNITED STATES PATENT OFFICE

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CLIP

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This invention relates generally to floor, roof and wall construction of the type in which concrete slabs are poured upon or reinforced by metal lath or other self-centering element which in turn is supported by steel supporting members; and more particularly the invention relates to means for securing metal-lath or other self-centering elements to joists, studding or other supports and for anchoring the concrete to such element and support.

The general object of the invention is to provide simple, efficient, inexpensive and improved means for securing metal-lath and the like to a support, and for embedding itself in the plaster and concrete which is poured upon the metal-lath, whereby the plaster, concrete, lath and support are all effectively tied together and a lateral reinforcement is provided for said support.

A more particular object is to provide a spring clip which may be inserted through metal lath and engaged with the lath support, and which will embed itself in the concrete poured over the lath, for securing the lath to the support and for anchoring the concrete to the lath and support.

With the above objects in view, the invention consists in the novel and useful provision, formation, construction, association and relative arrangement of parts, members and features, all as shown in a certain embodiment in the accompanying drawings, described generally and more particularly pointed out in the claims.

In the drawings:

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

Fig. 2 is a sectional view of a metal lath and support, showing one of my clips in the act of being inserted through the lath and engaged with the support for securing the lath to the support.

Fig. 3 is a sectional view of a concrete and metal floor construction showing my clip inserted through the metal lath and engaged with the lath support and showing the clip anchored in the concrete whereby the lath, support and concrete are tied together.

Fig. 4 is a plan view of the metal lath secured to a support by my clip.

Fig. 5 is a vertical section of Fig. 3 taken on line 5—5 of Fig. 3.

Corresponding parts are designated by the same reference characters in all the figures.

My invention comprises a spring clip designated generally as 1, which may be formed of a single piece of stout wire 2, which is bent V-shape at 3 substantially midway of its ends to form spring V members 4 and 5, which members are respectively bent to form at their ends a lock engaging member 6 and a latch engaging member 7, the member 4 being first bent outwardly at 8 at an obtuse angle and then inwardly at 9 substantially at right angles to form the lock engaging member 6, and the member 5 being first bent outwardly at 10 at an obtuse angle and then inwardly at 11 and slightly in an outwardly curved direction at 12 to form the latch engaging member 7.

In Figs. 2 to 5 inclusive of the drawings I have illustrated a concrete and metal floor construction including the T iron supports 15, the expanded metal lath 16, and concrete 17.

In applying my invention to the above concrete and metal floor construction, the metal lath 16 is first placed against the transverse flanges 18 of the T iron 15; my clip is then inserted through the spaces 19 of the metal lath, the lock engaging member 6 being first engaged with one edge of the transverse flange 18 of the T iron 15 and the curved portion 12 of the latch engaging member cammed over the other edge of the T iron flange 18 and the V members 4 and 5 sprung apart slightly until the latch engaging member 7 firmly engages said other edge of the T iron flange 18 while the portions of the clip between the bends 8 and 9 and the bends 10 and 11 engage the outer side of the metal lath as shown in Fig. 3, thus securing and locking the metal lath to said T iron flange 18; the concrete is then poured over the metal lath 16 and my clip 1 and the concrete is then finally poured over the projecting end of the V members 4 and 5 of the clip, covering the clip completely so that the clip is firmly embed-

ded and anchored in the concrete 17 whereby the metal lath 16, T iron support 15, and concrete 17 are firmly and effectively tied together. My clip may be introduced through the metal lath between the ribs 20 and engaged with the T iron flange 18 as indicated at 21 of Fig. 4, or the clip may be bent at 22 and 23 so as to straddle a rib 20 of the metal lath and to engage with its members 6 and 7 the opposite edges of a T iron flange 18 at opposite sides respectively of said rib as indicated at 24 of Fig. 4.

It is necessary if a steel member is to carry its full load that it be supported laterally at frequent intervals against deflection, so that it cannot move in a sidewise direction. My invention accomplishes this purpose and could be used on steel sections even if the slabs were not poured upon or reinforced by metal lath.

My invention is cheap to make and very cheap and quick to install and does not require special tools nor skilled workmen and furnishes the combined function when metal lath is used of holding the metal lath rigidly in position by attaching it to the steel supporting member and at the same time furnishes a lateral support to said steel supporting member. As the connection is made at the sides of the supporting member, it makes a much better connection for the lath if the sheets of lath lap on the supporting member than if the connection were at or near to the center of the supporting member. As the lath is not applied to the supporting member until the lath is placed and it is time to pour the concrete slab, there are no projections on the top of the steel supporting member to cause difficulties in handling the member or in walking on it after it is in place.

It is obvious that various changes, variations and modifications may be made in practicing the invention, in departure from the particular showing of the drawings, without departing from the true spirit of the invention.

I claim:

1. In combination, a metal lath, a support therefor, a covering for said metal lath, and means for securing said metal lath to said support; said means having a part embedded in said covering to provide a lateral stay for said support.

2. In combination, a metal lath, a support therefor, a covering for said metal lath, and means for securing said metal lath to said support, said means being formed with a part anchored to said covering whereby said means provides a lateral stay for said support.

3. In combination, a metal lath, a support therefor, a covering for said metal lath, and lateral stay means for said support; said means including a member having a part

adapted to be anchored in said covering and parts engaging spaced zones of said support.

4. In combination with a support, metal lath, and concrete or the like poured over said metal lath, a spring clip formed with: a lock 70 engaging member for engaging the lath and one edge of said support, a lath engaging member adapted to engage the lath and to spring over and into engagement with the other edge of said support, and an intermediate part adapted to be embedded in said concrete.

5. In combination with a support, metal lath, and concrete or the like poured over said metal lath, a spring clip bent between its 80 ends into a pair of spring members and a lock engaging member and a lath engaging member respectively at the ends of said spring members, said engaging members being adapted to be inserted through said lath with 85 said lock engaging member engaging said lath and one edge of said support, and said lath engaging member engaging said lath and springing into engagement with the other edge of said support, said intermediate portion of the clip being embedded in the concrete.

In testimony whereof, I have signed my name to this specification.

WILLIAM H. WILSON.