E. DIEBITSCH.

DEVICE FOR SECURING SLABS OR BLOCKS.

APPLICATION FILED SEPT. 19, 1910.

1,027,188. Patented May 21, 1912.

Fig. 1.

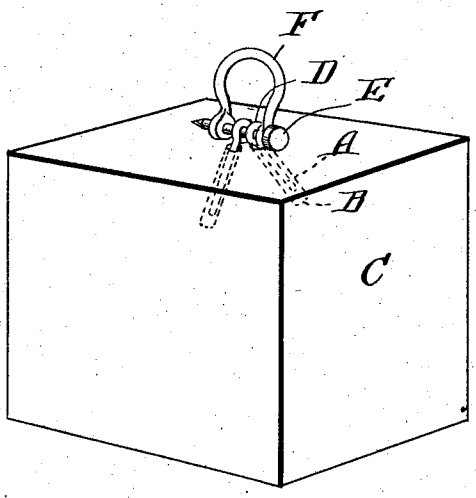


Fig. 2.

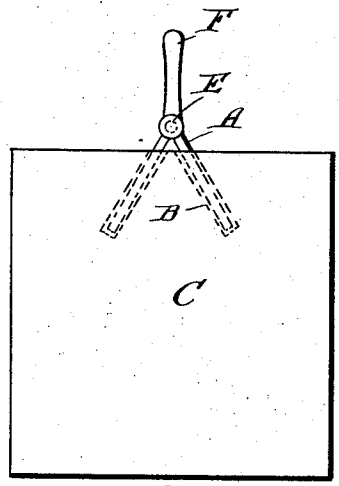


Fig. 4.

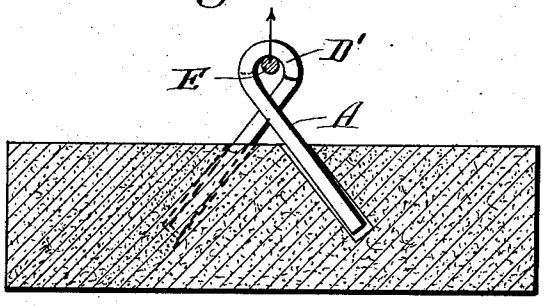


Fig. 3.

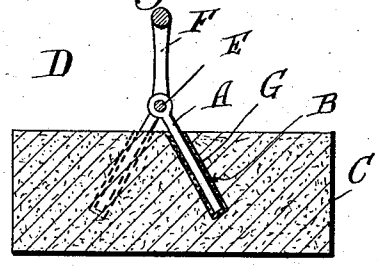


Fig. 5.

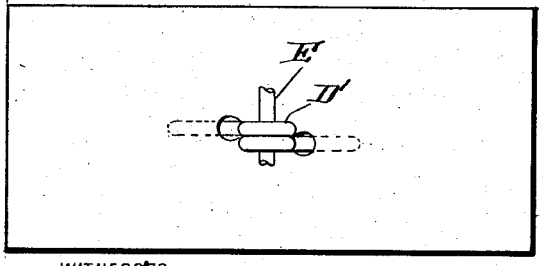
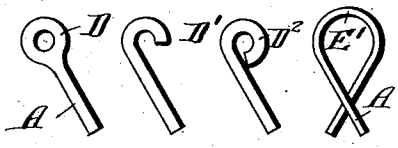


Fig. 6.



WITNESSES

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DEVICE FOR SECURING SLABS OR BLOCKS.

1,027,188. Specification of Letters Patent. Patented May 21, 1912.

Application filed September 19, 1910. Serial No. 582,607.

To all whom it may concern:

Be it known that I, EMIL DIEBITSCH, a citizen of the United States, residing in Nutley, Essex county, New Jersey, have invented certain new and useful Improvements in Devices for Securing Slabs or Blocks, of which the following is a specification.

This invention provides an improved means for securing a block or slab of building material such as marble or other stone, terra-cotta, tile, concrete or similar material to a chain or cable by which the stone is to be hoisted or to the framing or other parts of ceilings and walls as a permanent facing slab, or in fact for securing such a block or slab temporarily or permanently to any desired supporting means. The device for example is well adapted for use as a lewis for hoisting stone.

The accompanying drawings illustrate embodiments of the invention.

Figures 1 and 2 are respectively a perspective view and a side elevation of the invention applied as a lewis for the lifting of a block of stone. Fig. 3 is a cross section of the device permanently attached to the block. Figs. 4 and 5 are respectively a cross section and plan of another style of construction embodying the invention. Fig. 6 shows in side elevation the different styles of rods which may be used.

Referring to the embodiments of the invention illustrated the device comprises a pair of rods A adapted to be introduced into holes B previously formed in blocks C of stone or the like and constituting rigid sockets at an angle with each other and at a substantial angle less than ninety degrees with the face of the block to which the securing means is to be applied. The holes are made slightly larger in diameter than the rods so that the latter may be easily introduced thereinto, and redrawn therefrom when the device is used as a lewis or detachable fastening. Preferably the two rods A are separate from each other so that they may be independently introduced into the holes, and are provided with eyes or loops or hooks at their outer ends, such as the eyes D, and they are so proportioned and the holes are formed at such an angle and of such depth that the two eyes are brought into line with each other when the rods are introduced into the holes. A pin E or similar device is then passed through the eyes D and prevents their withdrawal from the stone, longitudinal movement of each pin being prevented by reason of its engagement with the other pin. When used as a lewis the pin E passes also through eyes in the ends of a clevis F to which is attached the chain or cable for hoisting the stone. When the stone is lifted or its weight is otherwise supported it bears at the edges of the holes upon the upper parts of the two rods. The substantially rigid attachment of the rods to each other at their outer ends serves to prevent accidental release of one of the pins when the block is tilted or jarred in an angular direction, and in fact holds the device attached to the block under all circumstances.

The device has considerable advantage in cheapness and security over the ordinary type of lewis in which a wedge is fitted into an undercut recess in the block. The cutting of such ordinary lewis holes involves a certain amount of hand work and care so that the wedge shall have a proper bearing and shall not break the edge of the hole and release itself. With my invention the two holes can be quickly and cheaply drilled by machinery, the proper angle being determined by a grooved block or templet to guide the drill. The parts of my present invention are fewer and cheaper than those of the ordinary type of lewis. For disconnecting the lewis it is only necessary to drive or pull the pin E out of the clevis and rods, when the latter may be separately withdrawn.

Where the device is to be permanently attached to the block of stone it may be further secured by means of a cement filling G or plaster or molten lead or sulfur or the like poured into the holes surrounding the pins as shown in Fig. 3.

Various forms of loops or eyes may be provided in the ends of the rods. For example Figs. 4 and 5 show the use of rods A having open loops or hooks D′ which are

sufficiently long to overlap each other and securely engage the pin E. Likewise, instead of the pin E various other means may be used for fastening the outer rods together, with or without loops. They may be fastened for example by wrapping them with twine, wire or the like, by soldering or welding them together or by clamping or bolting them together; or the fastening means may be attached to one of the rods in one way and to the other of the rods in another way.

Fig. 6 shows rods A of various designs. The eye D corresponds with the construction shown in Fig. 1 and is formed by upsetting and punching the end of the rod. The open loop or hook D′ corresponds with that of Fig. 4, and the closed loop or eye D^2 is similarly formed by merely bending the end of the rod around the desired length. In the fourth form illustrated in Fig. 6 the outer ends of the rods A are permanently connected by a wire E′ integral therewith. This construction is especially adapted for a light class of work and for cases where the securing device is to be permanently connected to the block or slab. The device is made of comparatively fine or soft wire. The rods A can be forced into the holes in the block by a force somewhat greater than the weight of the block so that it will hold such weight securely. In forcing the rods A into the block they will assume positions similar to those shown in Fig. 4, the intermediate portion E′ of the device serving to connect the outer ends of the rods and serving also as a means of attachment to a supporting structure or cable.

What I claim is:

1. The combination with a block of stone or the like having holes therein at an angle with each other and forming rigid sockets converging toward the face of the block, of a device for securing said block to a support, said device comprising a pair of rods adapted to be introduced freely into said sockets and a connecting means between the outer portions of said rods, said connecting means holding said rods fast to each other so that neither can be withdrawn while they are so connected.

2. The combination with a block of stone or the like having a pair of holes therein at an angle with each other and forming rigid sockets converging toward the face of the block, of a pair of rods fitting freely in said sockets and having their outer ends approximately in line with each other beyond the face of the block and means for securing the outer portions of said rods together so as to prevent their withdrawal by reason of the angular directions in which they are guided by said rigid sockets.

3. A device for securing to a support a block of stone or the like having holes therein at an angle with each other and forming rigid sockets converging toward the face of the block, said device comprising a pair of rods adapted to be introduced into said sockets and fitting said sockets loosely and a pin for holding together the outer portions of said rods after they have been so introduced, and thus preventing their withdrawal by reason of the angular directions in which they are guided by said rigid sockets.

4. The combination with a block of stone or the like having a pair of holes therein forming rigid sockets at an angle with each other, of a pair of separate rods fitting loosely in said sockets with their ends projecting from said sockets and means for fastening the projecting ends of said rods to each other so as to prevent their withdrawal by reason of the angular directions in which they are guided by said rigid sockets.

5. A device for securing to a support a block of stone or the like having holes therein at an angle with each other and forming rigid sockets converging toward the face of the block, said device comprising a pair of rods adapted to be introduced into said sockets and fitting said sockets loosely, said rods having looped outer ends, and a pin adapted to pass through said looped ends after the rods have been introduced into said sockets and to prevent the withdrawal of the rods by reason of the angular directions in which they are guided by said rigid sockets.

6. A lewis, comprising a pair of rods each having a looped outer end and adapted to be freely and independently introduced into and withdrawn from holes previously formed in a stone and constituting rigid sockets at an angle with each other and fitting said rods loosely, a pin adapted to be passed through the looped ends of both rods to prevent independent movement of the rods, and means for attaching said pin to a hoisting rope or the like.

7. A lewis, comprising a pair of rods A having each an eye D at its outer end and adapted to be independently introduced into and withdrawn from holes previously formed in a block alongside of and at an angle with each other and fitting said rods loosely, the eyes of said rods coming into line with each other when they are introduced, a clevis F embracing and having eyes in line with the eyes on said rods, and a pin E adapted to be passed through the eyes of said clevis and rods to fasten them together and prevent withdrawal of said rods from the holes in the block.

8. The combination with a stone provided with holes at an angle to each other and forming rigid sockets converging toward the face of the stone, of a lewis for lifting said stone, said lewis comprising rods adapt-

ed to be independently introduced into and withdrawn from said sockets and means for bracing said rods against one another and holding them against accidental withdrawal in lifting the stone, so as to prevent their accidental escape from said sockets.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

EMIL DIEBITSCH.

Witnesses:
D. A. USINA,
KENNETH B. HALSTEAD.