E. A. ZIMMERMAN.

SPACING BAR OR CORE FOR PLASTIC WORK.

APPLICATION FILED APR. 19, 1919.

1,309,084.

Patented July 8, 1919.

2 SHEETS—SHEET 1.

FIG. 1.

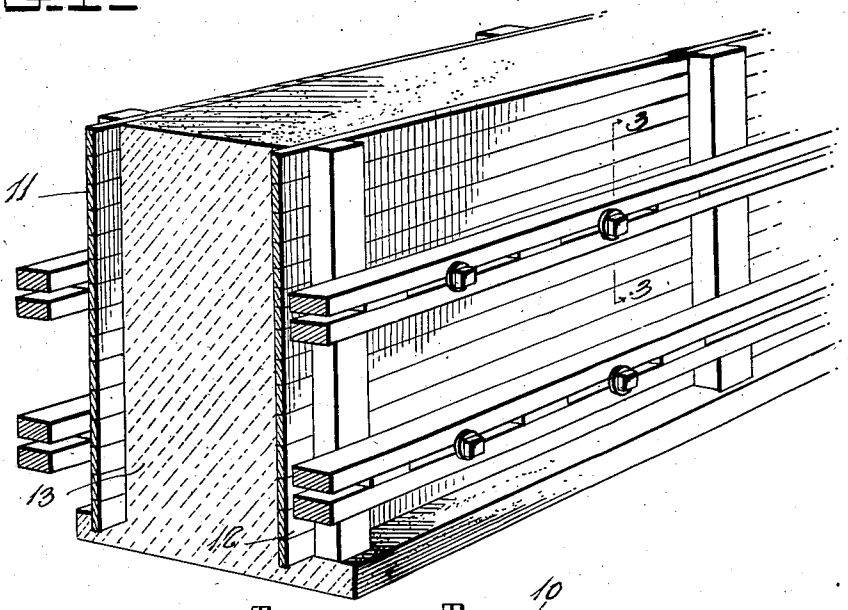


FIG. 2.

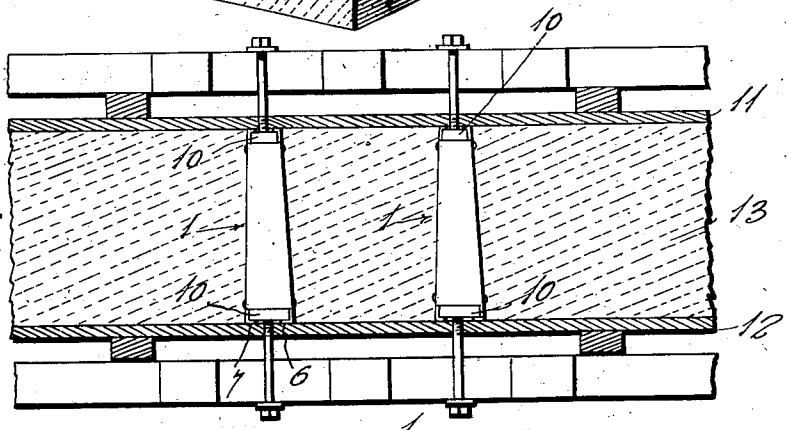
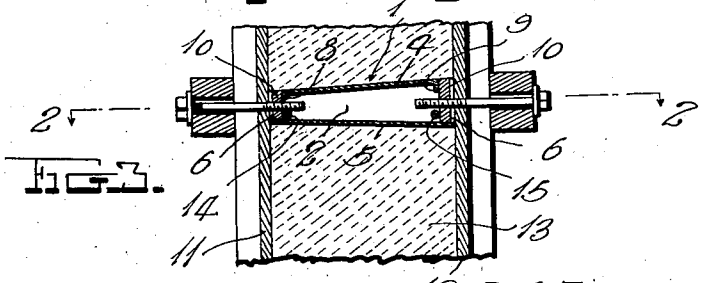


FIG. 3.



Witness

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2 SHEETS—SHEET 2.

FIG. 4.

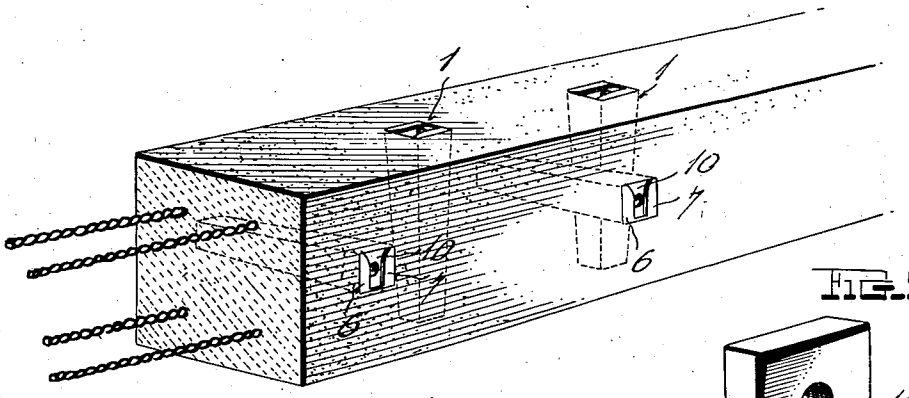


FIG. 9.

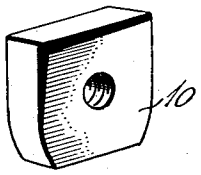


FIG. 8.

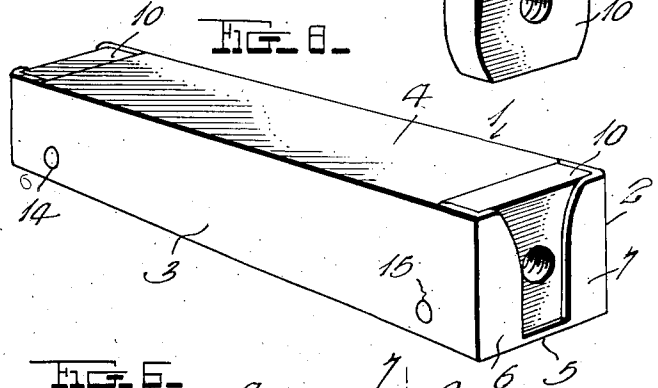


FIG. 5.

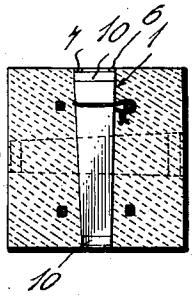


FIG. 6.

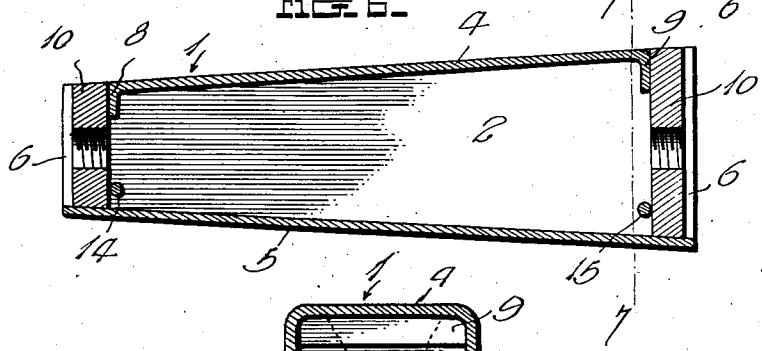
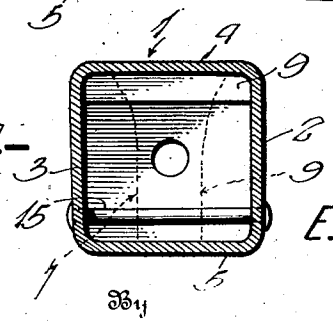


FIG. 7.



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EDGAR A. ZIMMERMAN, OF SHAMOKIN, PENNSYLVANIA.

SPACING BAR OR CORE FOR PLASTIC WORK.

BEST AVAILABLE COPY

1,309,084. Specification of Letters Patent. Patented July 8, 1919.

Application filed April 19, 1919. Serial No. 291,238.

To all whom it may concern:

Be it known that I, EDGAR A. ZIMMERMAN, a citizen of the United States, residing at Shamokin, in the county of Northumberland and State of Pennsylvania, have invented certain new and useful Improvements in Spacing Bars or Cores for Plastic Work, of which the following is a specification.

My invention relates to spacing bars or cores, or more particularly to pressed steel cores or clamps, for use in structural plastic work.

An object of the invention is to provide a suitable core for any plastic or concrete work employing a substance which solidifies, that will be easy to manufacture and also inexpensive to produce.

A further object is to construct a core or spacing bar which will be made in different sizes and can be repeatedly used without any deterioration in quality.

Another object is to construct the core, so that it may be readily removable and, when thus removed, a ventilating opening will be left in the concrete wall.

Other objects will appear as the description proceeds.

In the drawings which constitute a part of my specification

Figure 1 is a perspective view of a concrete form with my invention applied.

Fig. 2 is a horizontal section on the line 2—2 of Fig. 3.

Fig. 3 is a vertical section on the line 3—3 of Fig. 1.

Fig. 4 is a perspective view of a pillar with my invention applied.

Fig. 5 is a transverse section thereof.

Fig. 6 is a central vertical longitudinal section of my spacing member.

Fig. 7 is a transverse section on the line 7—7 of Fig. 6.

Fig. 8 is a perspective view of the spacing member.

Fig. 9 is a perspective view of one of the nuts used in the spacing member.

Similar reference numerals are used to designate similar parts throughout the several views.

The core 1 is substantially rectangular in shape and square in end view, the sides 2, 3, 4 and 5 tapering from the larger end to the smaller. The two sides 2 and 3 are the same length and have their opposite end portions or shoulders 6 and 7 bent at right angles, thereby forming vertical slots in each end. The top and bottom sides 4 and 5 are the same length, the top extending the full length of the core, and the bottom having its ends bent upward to form shoulders 8 and 9 extending a short distance back of the shoulders 6 and 7. The three shoulders on each end are bent so as to form a seat or socket for nuts 10, and the vertical slots are so constructed, as to permit a slight adjustment of the bolts which hold the core in position between the forms 11 and 12 of the concrete wall 13, and engage the nuts 10. Pins 14 and 15 are positioned transverse of said core, a slight distance above its bottom and in vertical alinement with the shoulders 8 and 9, said pins and shoulders forming a rigid socket for the said nuts 10.

In operation, I place a nut in the socket at each end of the core and place a series of cores in place between the forms. A series of bolts are then placed through each form to engage and connect with the nuts in the several cores. When the bolts are tightened, the mold will be complete and ready for the concrete to be poured in. After the concrete has hardened, the bolts are unscrewed and the sides of the forms taken off. The cores may remain in the walls if so desired, or a slight tap on the smaller end of said core with a hammer will dislodge it, and later the hole can be plugged or plastered.

It is obvious that it might be desirous of having a scaffold on the wall of the house. In this case, a small wedge could be inserted in the hole and a bolt fastened to it and extending beyond the surface of the wall, thereby making it possible to attach said scaffold or any exterior overhanging work. By using this device, the expensive and troublesome method of wiring the forms together is eliminated.

Sometimes the cores or spacing bars are extracted and the holes left open for the purpose of ventilation.

I prefer to make my core of approximately quarter inch pressed steel, so that the sockets for the nuts, in each end of the core will be strong enough to hold a scaffold or fire escape in place.

By placing the core in position with the top up, it may be used repeatedly without any chance of the concrete running into the sockets, especially as the nuts are flush with the outside of the core, and fit snugly there-

in. This core will prove to be inexpensive to manufacture and very efficient for the purposes hereinbefore specified.

Another operation in using my core is to place the bolts through the walls of the forms with the nuts on said bolts. It will be apparent that it will be an easy matter to slide the cores in place and tighten them up with a wrench. The body of the core is made substantially square so that it is adapted to be engaged by a wrench for quick positioning.

Many minor changes in detail of construction may be resorted to without departing from the spirit of the invention.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States is:

1. A core for concrete work, comprising a substantially rectangular shaped body and sockets on each end for holding nuts, for the purpose specified.

2. A core or clamp, having a portion of three of its sides bent in, substantially at right angles with said sides, thereby forming rigid sockets at either end.

3. A tapering core for concrete work, having its sides bent to form vertical slots, and pins transverse of said core, and in alinement with the lower bent portion or shoulder, the whole for producing a rigid seat for nuts.

4. A one piece core for concrete work, the bottom of said core having its end portions extending upwardly, the sides extending at right angles to said core, thereby forming a socket at either of its ends.

5. A one piece core for concrete work, sockets in the ends of said core, the outer ends of said sockets having vertical alined openings, substantially as described.

6. A core for concrete work, vertical shoulders or wings on the ends of said core, and shoulders on the bottom of said core and parallel with said vertical shoulders, transverse pins in alinement with the shoulders on the bottom of said core, the whole forming a rigid socket for the reception of nuts.

In testimony whereof I affix my signature.

EDGAR A. ZIMMERMAN.