A. A. ZAKHAROFF.

REMOVABLE FORM FOR CONCRETE STRUCTURES.

APPLICATION FILED MAY 21, 1919.

1,316,610. Patented Sept. 23, 1919.

Fig. 1

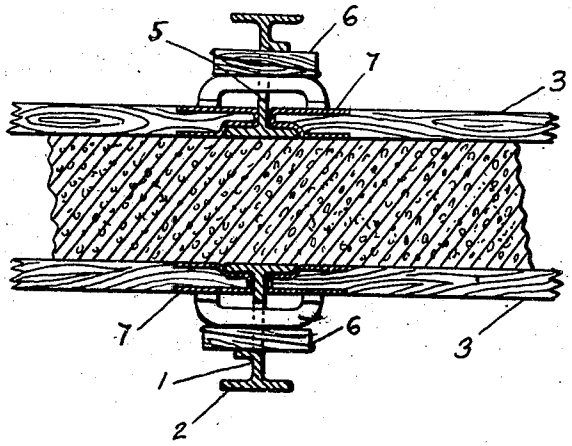


Fig. 2

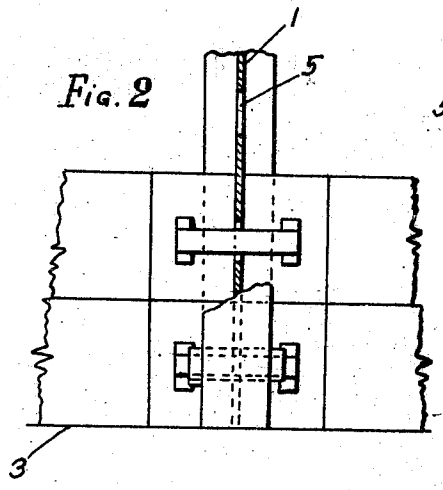
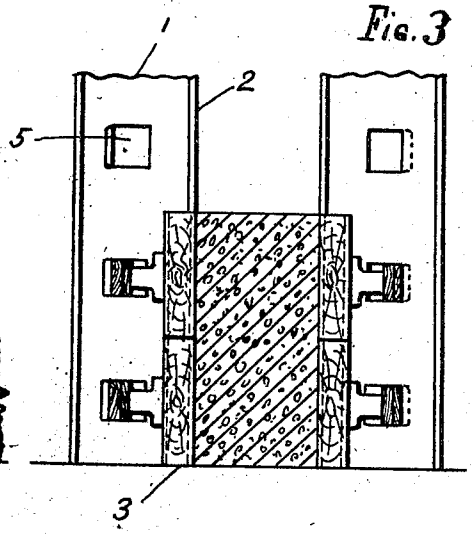


Fig. 3



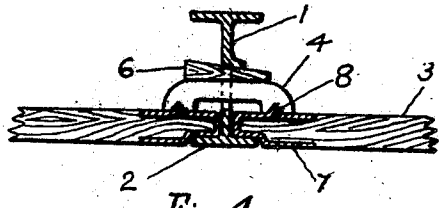


Fig. 4

WITNESSES:

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REMOVABLE FORM FOR CONCRETE STRUCTURES.

1,316,610. Specification of Letters Patent. Patented Sept. 23, 1919.

Application filed May 21, 1919. Serial No. 298,584.

To all whom it may concern:

Be it known that I, ALEXIS A. ZAKHAROFF, citizen of Russia, and resident of the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in the Removable Forms for Concrete Structures, of which the following is a specification.

My invention relates to the molding forms, as may be used for the erection of the concrete structures, and has a particular reference to such forms, which can be taken apart upon completion of the work and used over again for a similar work. It has a further reference to such molding forms, which are composed of standard parts, suitable to be joined together in a variety of forms to suit various practical requirements.

Heretofore the forms for the concrete structures were made mostly of ordinary wooden boards and stakes, joined together in such a way, that upon completion of the molding work, most of the material and parts of the molds were useless for any further service for molding forms.

With my removable molds it is possible to erect concrete structures of any practical size and shape, using over and over again my standardized component parts of the forms.

My invention is more fully represented on the accompanying drawings, in which—

Figure 1 is a horizontal section through my assembled form, filled with the concrete, Fig. 2 is a side elevation of same, and Fig. 3 is an end view, and Fig. 4 represents a modification.

My form consists of I or T beams, which I employ preferably as vertical posts, and which also serve to hold firmly the whole structure together (1). To the flanges 2 of these beams the boards 3 are fastened by means of the U-shaped clamps 4. These clamps pass through the openings 5 in the beams 1 and are pressed against the boards by means of the wedges 6. The ends of the boards 3 have metal tips or reinforcements 7, which are formed in such a way, that they present a smooth surface with the flanges 2, against which they are clamped.

These boards can be made in some standard sizes, also the beams, so that with these parts any desired concrete structure can be erected.

Fig. 4 represents a modification, in which reinforcements on the ends of the boards have projections 8, which fit corresponding grooves in the clamps 4, thereby holding together these boards still more effectively.

Important advantages of my invention are, that with my removable forms it is possible to erect concrete structures more quickly and more economically, using my forms over again for different constructions.

I claim as my invention:

1. In a removable form for the concrete structures, the combination with a plurality of beams having central webs and flanges at an approximately right angle with said webs, openings in said webs, a plurality of boards, metal reinforcements on the ends of said boards, said reinforcements adapted to be detachably joined with the flanges of said beams.

2. In a removable form for the concrete structures, the combination with a plurality of beams having central webs and flanges at an approximately right angle with said webs, openings in said webs, a plurality of boards, metal reinforcements on the ends of said boards adapted to be detachably joined with the flanges of said beams, and clamps passing through the openings in said beams and engaging the ends of said boards.

3. In a removable form for the concrete structure, the combination with a plurality of beams having central webs and flanges at an approximately right angle with said webs, openings in said webs, a plurality of boards, metal reinforcements on the ends of said boards, depressions in said reinforcements adapted to fit said flanges so as to present an approximately smooth surface with said flanges toward the concrete structure, and clamps, passing through the openings in said beams and detachably fastening said boards with said beams.

4. In a removable form for the concrete structures the combination with a plurality of beams having central webs and flanges at right angle with said webs, openings in said webs, a plurality of boards, metal reinforcements on the ends of said boards, depressions in said reinforcements adapted to fit said flanges so as to present an approximately smooth surface with said flanges toward the concrete structure, clamps passing through said openings in the beams and engaging the ends of said boards, and wedges, adapted to force said clamps against said boards, thereby joining them firmly and detachably with said beams.

5. In a removable form for the concrete structure, the combination with a plurality of beams having central web and flanges at a right angle with said webs, openings in said webs, a plurality of boards, metal reinforcements on the ends of said boards, depressions in said reinforcements adapted to fit said flanges so as to present an approximately smooth surface with said flanges toward the concrete structure, clamps passing through said openings in the beams, and wedges, adapted to force said clamps against said boards, thereby joining them firmly and detachably with said beams, projections on said reinforcements, and grooves on said clamps, said grooves adapted to fit said projections.

Signed at New York, in the county of New York and State of New York, this 8th day of May, A. D. 1919.

ALEXIS A. ZAKHAROFF.