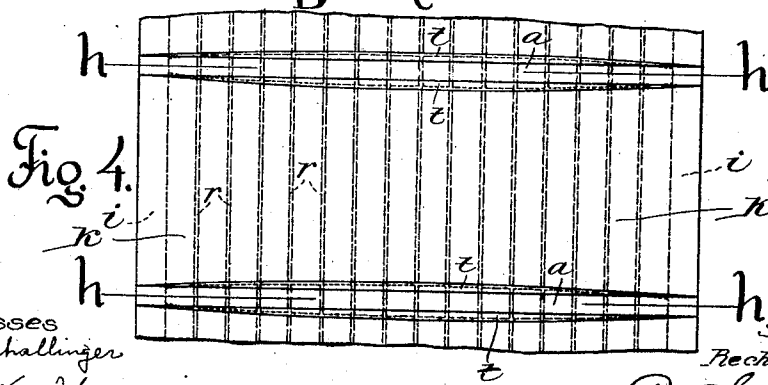
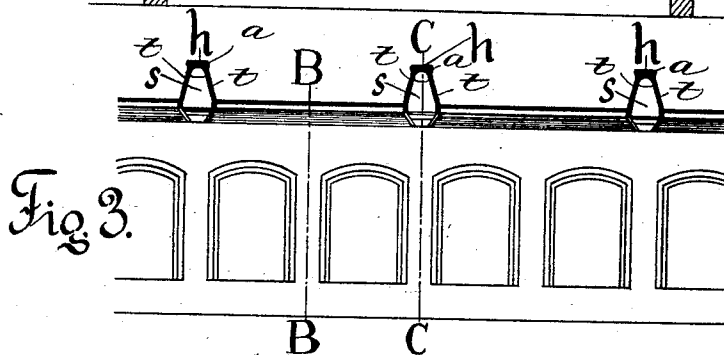
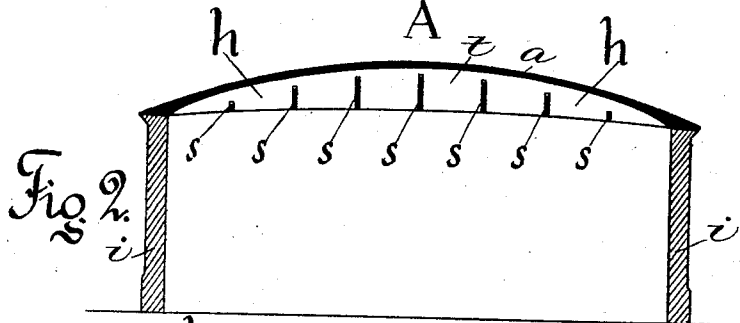
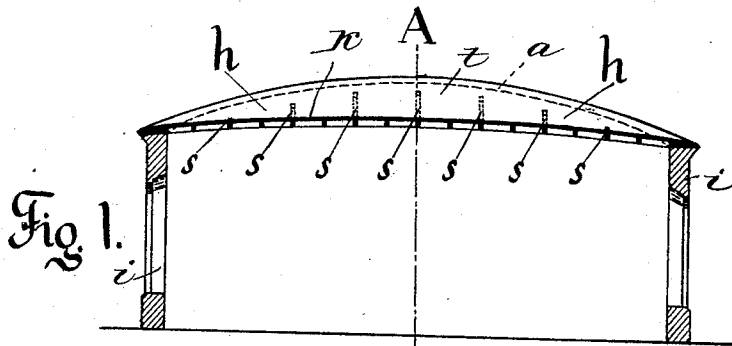


S. RECHNIEWSKI.
 INTEGRAL REINFORCED CONCRETE ROOF STRUCTURE.
 APPLICATION FILED MAY 14, 1910.

1,062,736.

Patented May 27, 1913.

2 SHEETS—SHEET 1.



Witnesses
 E. Schallinger
 A. Wendt

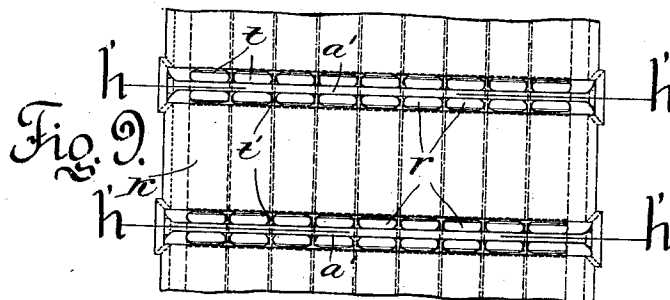
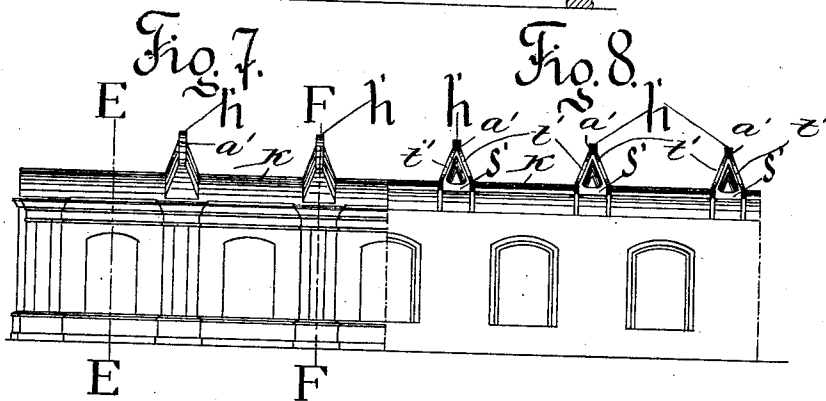
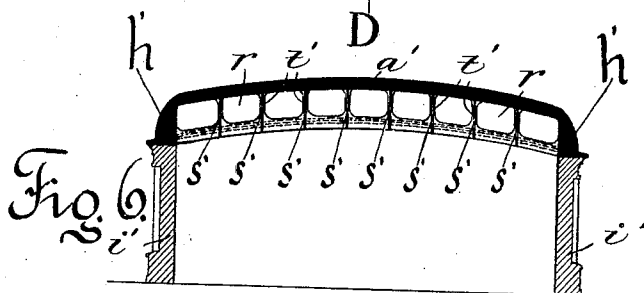
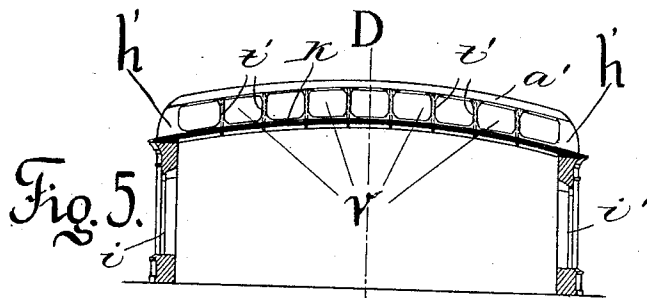
Inventor
 Stanislaw
 Rechniewski
 By B. Singer
 Atty

S. RECHNIEWSKI.
 INTEGRAL REINFORCED CONCRETE ROOF STRUCTURE.
 APPLICATION FILED MAY 14, 1910.

1,062,736.

Patented May 27, 1913.

2 SHEETS—SHEET 2.



Witnesses
 E. Schallinger
 A. Wendt

Inventor
 Stanislaw Rechniewski
 by B. Singer
 Atty

UNITED STATES PATENT OFFICE.

STANISLAW RECHNIEWSKI, OF ST. PETERSBURG, RUSSIA.

INTEGRAL REINFORCED-CONCRETE ROOF STRUCTURE.

1,062,736.

Specification of Letters Patent.

Patented May 27, 1913.

Application filed May 14, 1910. Serial No. 561,342.

To all whom it may concern:

Be it known that I, STANISLAW RECHNIEWSKI, engineer, a subject of the Czar of Russia, of 19 Tavritcheskaya street, St. Petersburg, Russia, have invented new and useful Improvements in Integral Reinforced-Concrete Roof Structures, of which the following is a specification.

My invention relates to reinforced concrete roof construction in which a plurality of hollow spanning members of concavo-convex cross section, suitably supported at ends, are adapted to support intermediate roof members, the hollow spanning members being provided, within its concave portion, with transverse separating members to prevent lateral deflection due to forces acting thereupon and as a reinforcement to the sides of the spanning members to overcome the compressive directed forces set up by the intermediate roof members.

The object of my invention is to provide an improved means for the construction of roof structures where the distance between supports, or span of such structure is considerable. I attain this object by the construction and arrangement of parts shown in the accompanying drawings, in which—

Figure 1 is a cross sectional view through a building, taken on the line B—B of Fig. 3 and embodying my invention. Fig. 2 is a cross sectional view taken on the line C—C of Fig. 3. Fig. 3 is a central vertical section through a building, indicated by the line A—A of Fig. 1. Fig. 4 is a fragmentary view in plan of the roof construction. Fig. 5 is a cross sectional view taken on the line E—E of Fig. 7, and showing a modification of my invention. Fig. 6 is a cross sectional view taken on the line F—F of Fig. 7. Fig. 7 is a side elevation of a building embodying my invention. Fig. 8 is a central vertical section taken on the line D—D of Fig. 5. Fig. 9 is a fragmentary plan view of the roof construction.

Similar characters refer to similar parts throughout the several views.

In the drawings, with reference to Figs. 1 to 4 inclusive, h represents generally an arched reinforced concrete beam or rib, which comprises side members t converging upwardly to an arched member a which constitutes the roof of the beam or rib. The side members are held from lateral deflection and reinforced against inwardly di-

rected compressive forces by separating members s . The beams or ribs h are spaced apart and as shown in the drawings, have end bearings upon walls i of a building to which they transmit the load of the roof structure. Between the beams or ribs, and supported thereby, are what I term intermediate reinforced concrete spanning members k , which are preferably reinforced as at r and which reinforcement extends transversely through the beams or ribs. The intermediate spanning members are partially supported by being confined between the wedging sides of the beams or ribs and in which position they act as a wedge therebetween, serving as a wind brace to the structure.

With reference to Figs. 5 to 9 inclusive, beams or ribs h' are adapted to serve as skylights. This is accomplished by providing side members t' converging at an arched rib a' , the side members being apertured as at r' , which apertures may be suitably glazed to exclude the inclement weather. In order to reduce the obstructing of light entering through the apertures r' , spacing members s' are reduced in height at their central transverse portion as shown in Fig. 8, they serving the same purpose as members s described in connection with Figs. 1 to 4. The supportance of the members h' and intermediate spanning members k are also substantially that as described in connection with the before mentioned figures.

I claim:—

1. A reinforced concrete roof construction comprising an integral span of reinforced concrete adapted to rest on side walls and consisting of slightly arched reinforced concrete portions extending from wall to wall, arched reinforced concrete ribs extending from wall to wall and projecting above said portions and having side or lateral walls spaced apart from each other and united near their lower margins with said slightly arched portions, and reinforced concrete separating members transversely disposed between the walls of said arches and formed integral therewith.

2. A reinforced concrete roof construction comprising an integral span of reinforced concrete adapted to rest on the side walls and consisting of slightly arched reinforced concrete portions extending from wall to

5 wall, arched reinforced concrete ribs extending from wall to wall and projecting above said portions and having lateral or side walls spaced apart from each other and
10 united near their lower margins with said slightly arched portions, and vertically disposed flat reinforced concrete separating members transversely arranged between the walls of said arches and formed integral therewith.

15 3. A reinforced concrete roof construction comprising an integral span of reinforced concrete adapted to rest on side walls and consisting of slightly arched reinforced concrete portions extending from wall to wall, arched reinforced concrete ribs extending from wall to wall and projecting above said portions and having lateral or side walls spaced apart from each other and united
20 near their lower margins with said slightly arched portions, and reinforced concrete separating members disposed between the walls of said arches and spaced apart from each other, said separating members being

of greater height near the crown of the arch 25 than near the base thereof.

4. A reinforced concrete roof construction comprising an integral span of reinforced concrete adapted to rest on side walls and consisting of portions slightly arched transversely with respect to the length of the span, arched reinforced concrete ribs extending substantially from wall to wall and projecting above said slightly arched portions, said ribs having side walls converging toward each other upwardly from said slightly arched portions, reinforced concrete arched roofs connecting the tops of said converging side walls, reinforced concrete separating members connecting said side walls, substantially as described. 30 35 40

In testimony whereof I affix my signature in presence of two witnesses.

STANISLAW RECHNIEWSKI.

Witnesses:

H. A. LOVIAGUINE,
N. SKRSZKVOIZ.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."