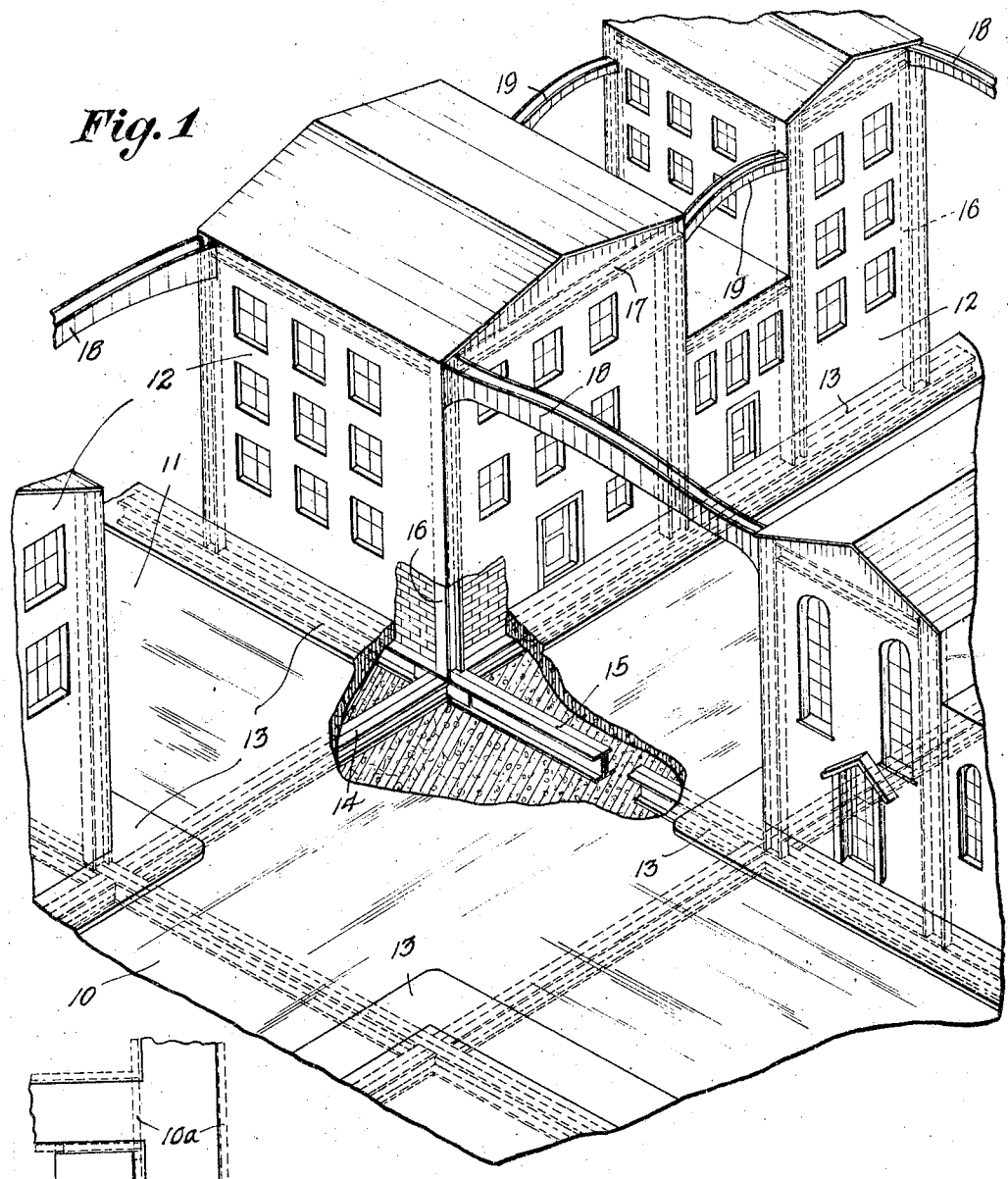
March 26, 1929. P. PIERI 1,706,496

EARTHQUAKE AND TORNADO PROOF BUILDING

Filed June 30, 1927

Fig. 1



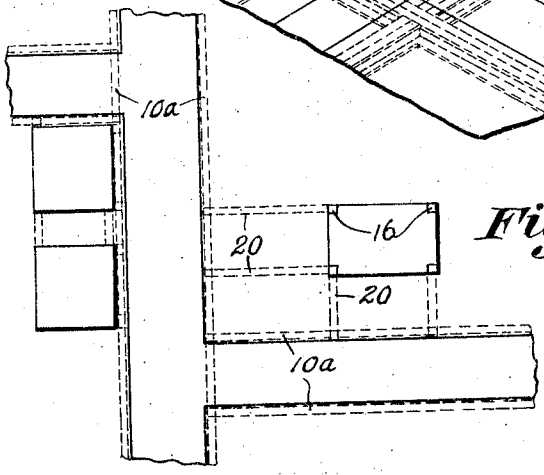


Fig. 2

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Patented Mar. 26, 1929. 1,706,496

UNITED STATES PATENT OFFICE.

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EARTHQUAKE AND TORNADO PROOF BUILDING.

Application filed June 30, 1927. Serial No. 202,520.

This invention relates to architecture and has particular reference to the formation of building constructions that will be safe and dependable irrespective of the damaging effects of earthquakes, tornadoes, and other elemental disturbances.

Among the objects of the invention is to provide a system of metal reinforcement means in the construction of cities, towns, villages, or country places, that will be so devised and established as to prevent such damaging results as the collapse or overthrow of dwelling houses, apartment houses, or other buildings as a result of earthquakes, tornadoes, cyclones, or the like.

A further object of the invention is to extend the advantages above specified so as to include the reinforcement of houses already built, thereby rendering them earthquake and tornado-proof, as well as buildings about to be constructed.

With the foregoing and other objects in view the invention consists in the arrangement and combination of parts hereinafter described and claimed, and while the invention is not restricted to the exact details of construction disclosed or suggested herein, still for the purpose of illustrating a practical embodiment thereof reference is had to the accompanying drawings in which like reference characters designate the same parts in the several views, and in which—

Figure 1 is a diagrammatic perspective view showing the adaptability of my improvement for the protection or reinforcement of a series of buildings along or among which are provided streets or roadways in any desired direction.

Fig. 2 is a plan view in diagram indicating the extension of my improvement into rural or suburban territory.

Referring now more specifically to the drawings, I indicate at 10 and 11 the intersecting streets of a portion of a city or village along or adjacent to which are erected houses or shops of any suitable design or construction and which are approached from the streets or roadways 10 and 11 over or along sidewalks 13 or their equivalent.

Extending along the streets and preferably coextensive therewith are a series of girders 14 and 15 parallel respectively with the two streets 10 and 11 and intersecting such streets in squares corresponding to the street squares. These girders may be made of any suitable material, but preferably are in the form of steel channel members, and they are connected together endwise and crosswise by any suitable means well known to the art of steel construction.

Built in or in connection with the houses or other buildings 12 are a series of vertical frame members 16 which while erected at or along the corners of the buildings or may constitute the corner posts of such buildings, may be installed at any desired points along or within the buildings and either before or after the completion thereof. The lower ends of these posts 16 are of course rigidly connected with the network of girders 14 and 15 below the level of the street or roadway and constitute therewith a practically unitary or homogeneous framework of strong steel structure.

Between the upper ends of the posts 16 are connected horizontal beams 17 which may extend only along the buildings either parallel or transverse to the streets or may extend across the streets as indicated at 18 or across intervening space between buildings as indicated at 19, and the ends of these beams are connected rigidly and permanently to the posts 16.

In applying my invention to rural districts it will be understood that beginning at a certain center or nucleus, I may extend a pair of girders 10^a along any street or roadway so as to define the sidewalk lines thereof or the building lines as may be desired, and from said girders 10^a may be extended laterally what may be termed laterals 20 so as to connect a house building site or a building with the street or roadway girders, and then erect what correspond to the posts 16 so as to make a continuous unitary rigid and sturdy network of steel construction.

From the foregoing it will be obvious that practically all or at least a very large percentage of the damage and losses due to earthquakes, tornadoes, or the like will be eliminated together with the accompanying protection to the life of individuals because of the network of sturdy steel construction.

I claim:

In building constructions as set forth, the combination of a plurality of girders extend-

ing along and coextensive with intersecting streets and located below the surface thereof, separate spaced buildings having upright building elements anchored at their bases to said girders for reinforcing the buildings associated therewith, and transverse beams anchored to the upper ends of said upright building elements and constituting with the uprights and girders a continuous system of strong metallic reinforcements between the buildings for resisting the damaging effects of earthquakes, tornadoes, or the like.

In testimony whereof I affix my signature.

POMPEO PIERI.