

E. FRANKIGNOUL.
FOUNDATION.
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1,049,221.

Patented Dec. 31, 1912.

Fig. 1.

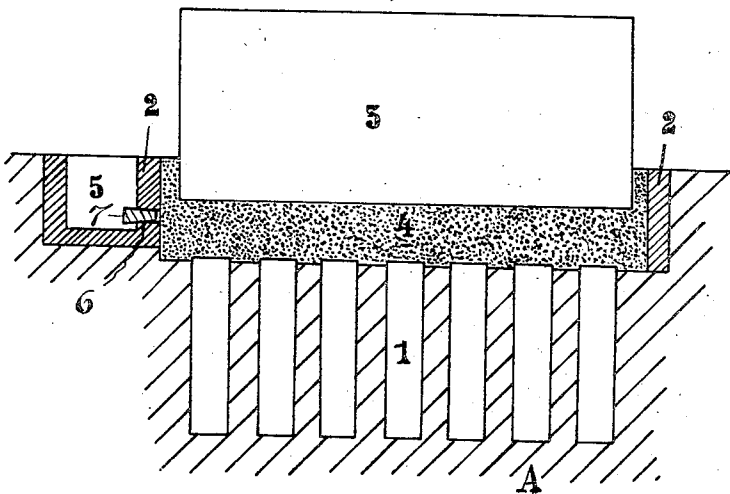
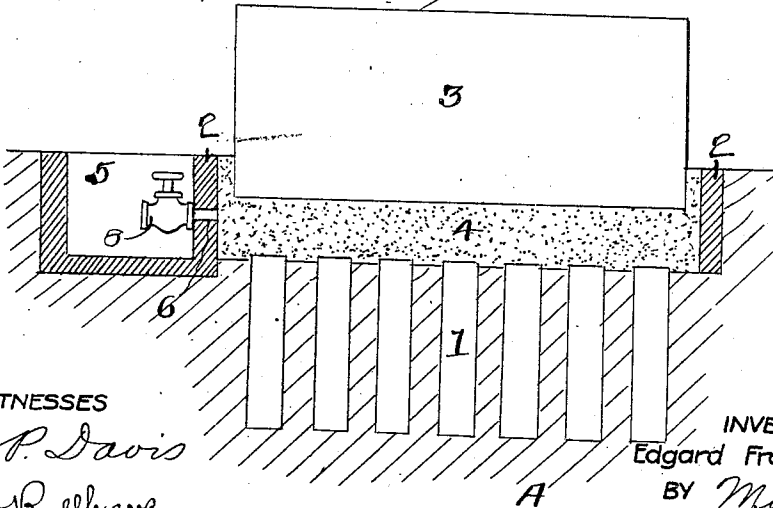


Fig. 2.



WITNESSES

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EDGARD FRANKIGNOUL, OF LIEGE, BELGIUM.

FOUNDATION.

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To all whom it may concern:

Be it known that I, EDGARD FRANKIGNOUL, manufacturer, a subject of the Kingdom of Belgium, residing at 196 Rue Gretry, Liege, Belgium, have invented certain new and useful Improvements in or Pertaining to Foundations; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

15 This invention relates to the making of the foundations of buildings and structures (hereinafter referred to as buildings) in such a manner as to enable the verticality or horizontality of the buildings to be quickly and easily restored, should they be interfered with by movements of the ground due, for example, to mining operations. For this purpose according to this invention a building is supported by a mass of sand inclosed in a basin. When the ground subsides at some part of the basin, the basin and the sand thereof yield and allow the building to subside at the place in question.

To reestablish the verticality or the horizontality of the building the other portions of the foundation are lowered by removing a portion of the sand from the basin at other parts of the basin, where the sand has not subsided.

35 The invention is illustrated in the accompanying drawing, forming a part of this specification and in which similar characters of reference indicate corresponding parts in both views.

40 Figure 1 is a sectional elevation of the improvement; and Fig. 2 is a similar view of a modification.

Referring to Fig. 1 the bottom of the basin may be a floor of masonry or of concrete; or it may, as in the example shown, be composed of concrete pillars 1 or wooden piles. The sides of the basin are formed by a wall 2. As is obvious, the horizontal section of the basin depends on the horizontal section of the building 3 to be constructed on the sand 4 therein. Outside the wall 2 there are provided, at suitable distances apart around the basin, chambers 5. Between the interior of each chamber 5

and the interior of the basin there is a passage 6, which is normally closed by a plug 7.

If, for example, the ground subsides at A, the building will tend to incline toward the right hand, as seen in the drawing. To restore the verticality of the building it will suffice to open one or more of the passages 6 at the left hand side and to allow a portion of the sand on the left hand side of the basin to pass out through the passage or passages so as to lower the building on the left hand side.

It is obvious that the removal of the sand may be effected by allowing the sand to be forced through the passage or passages 6 by the pressure due to the weight of the building 3. The escape of the sand may, however, be assisted by means of metal rods introduced through the passages 6.

In Fig. 2 the construction is similar to that shown in Fig. 1 except that instead of closing the openings of the basin by a plug, a cock 8 is employed. By means of the cocks water may be admitted to first loosen the sand and then the sand removed through said cocks.

In most cases it will be possible to dispense with the arrangement of chambers such as 5 around the basin. In that case, to cause a portion of the sand to pass out from one side of the basin, a hole will be dug in the ground so as to give access to the passage 6; after withdrawing a sufficient quantity of the sand and reclosing the corresponding passage 6, the hole thus made will be filled up.

The herein described method of making foundations is applicable to all buildings and structures to be built on ground liable to movement for example, as the result of mining operations, underground working, or the like; it is specially intended for buildings which should, owing to their purpose, preserve a perfect verticality, as is the case with the walls of gasometers, towers, fountains, engine-rooms, furnaces, and the like.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

The method herein described of supporting and leveling buildings, consisting in providing an inclosure having normally closed outlets in its side walls, filling the

inclosure with fine sand, placing the building upon the sand in the inclosure, opening the outlets of the inclosure, and removing a portion of the sand through said outlets to compensate for the settling of the building.

In testimony that I claim the foregoing

as my invention, I have signed my name in presence of two subscribing witnesses.

EDGARD FRANKIGNOUL.

Witnesses:

LEONARD LEVER,

ALEX LOLLENWAND.