

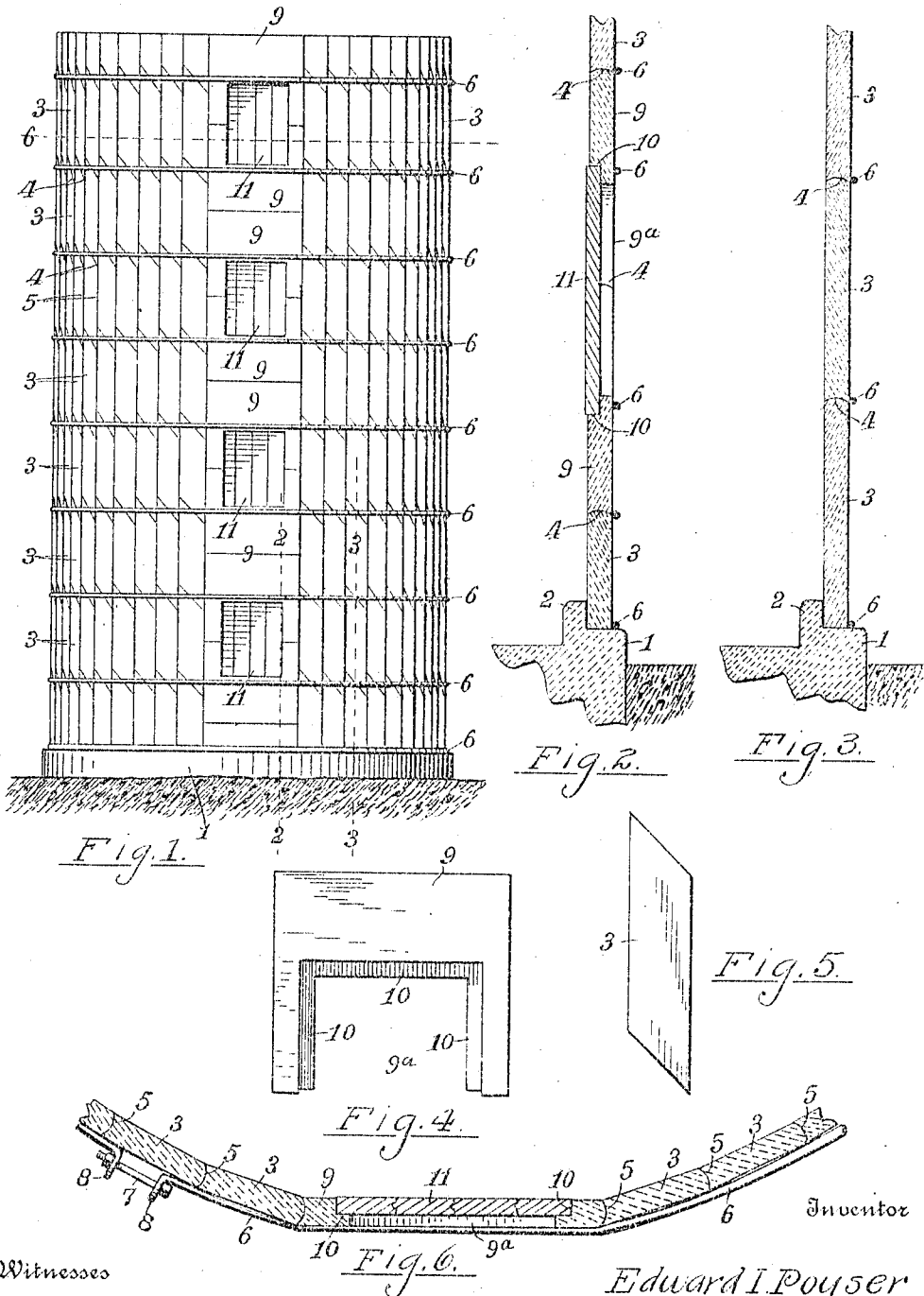
E. I. POYSER.

SIL0.

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1,041,159.

Patented Oct. 15, 1912.



Witnesses

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UNITED STATES PATENT OFFICE.

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1,041,159.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWARD I. POYSER, a citizen of the United States of America, residing at Cassopolis, in the county of Cass and State of Michigan, have invented certain new and useful Improvements in Silos; 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.

My invention relates to improvements in silos, and its object is to provide convenient means, whereby a silo may be constructed of concrete, and to provide the same with various new and useful features herein-after more fully described and particularly pointed out in the claims.

My invention consists of a silo construction of numerous slabs of concrete provided with interlocking margins and hoops or bands, whereby the wall of the silo will be substantial and impervious to moisture, and the slabs of which it is composed adapted to form silos of various dimensions at pleasure, as will more fully appear by reference to the accompanying drawings, in which:

Figure 1 is an elevation of a silo embodying my invention with the top or cover omitted; Fig. 2 an enlarged detail in vertical section on the line 2—2 of Fig. 1; Fig. 3 the same on the line 3—3 of Fig. 1; Fig. 4 a front elevation of one of the door sections; Fig. 5 a front elevation of one of the wall sections; and Fig. 6 a partial horizontal section on the line 6—6 of Fig. 1.

Like numbers refer to like parts in all of the figures.

1 represents any convenient base formed of concrete and having an inner upwardly projecting flange 2 surrounded by the lower end of the circular wall of the silo, which wall is composed of numerous small slabs 3, the outline of which is a parallelogram having two diagonally opposite acute angles and two diagonally opposite obtuse angles, said slabs being arranged in vertical and circumferential series and having concave and convex engaging side edges 5, whereby the curvature of the circle may be varied and the edges interlock and form a tight joint, and also having the upper end convex and the lower end concave as at 4, whereby rain or water running down the outside will not penetrate, but will be shed outward, and the respective sections will be

held in vertical alinement, the seams at the ends also being inclined to the horizontal. Horizontal bands or hoops 6 surround these walls opposite the inclined seams, thus crossing said seams diagonally and engaging both adjacent upper and lower ends of these sections and further securing the same in place. To provide doors at intervals, a number of vertical columns of these slabs 3 are omitted and door casings are inserted in place thereof, as at 9. These door casings are preferably substantially square in outline and have concave and convex engaging margins similar to the sections 3.

I prefer to use two casing sections to each door and recess the adjacent sides of the same, forming a door opening 9^a partially in each section. Surrounding this opening is a rabbet 10 in which the door 11 is supported, which latter may consist of a number of matched strips of wood, or a slab of concrete, and is held in place by the contents of the silo. If preferred, the seams of this structure may be further secured by means of suitable cement placed therein as the structure is assembled. This I do not consider essential however.

The top and bottom circumferential series of the slabs and door casings have their upper and lower end surfaces horizontal. These concrete parts 3 and 9 are readily made in any suitable molds and can be assembled to form cylindrical silos of various diameters without change and also can be built at various heights by greater or less number of circumferential series as occasion requires. The hoops or bands 6 are preferably of round rod and provided with the usual outwardly turned lugs 8 and tightening bolt 7, the length of these hoops being varied to conform to various diameters as occasion requires. This structure when assembled is substantially water proof and forms a very durable and satisfactory structure for the purpose. Any usual cover (not shown) may be used and forms no part of this invention.

What I claim is:—

1. A silo, comprising numerous slabs of concrete arranged in circumferential and vertical series, the seams between the superposed slabs being inclined to the horizontal, and horizontal bands or hoops crossing the seams and engaging both adjacent ends of the slabs.

2. A silo, comprising numerous slabs of

concrete each slab having parallel vertical sides and inclined ends and also having two acute and two obtuse angles and interlocking margins, and hoops or bands surrounding the slabs and extending across the inclined seams between the ends of the slabs.

3. A silo, comprising numerous slabs of concrete arranged in circumferential and vertical series and having interlocking margins, and door casings of concrete having margins adapted to interlock with the mar-

gins of said slabs, said casings also being recessed to form a door opening, a door to close said opening, and hoops or bands surrounding said slabs and door casings. 15

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

EDWARD I. POYSER.

Witnesses:

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