

C. P. VERNIER.
SILO DOOR.
APPLICATION FILED MAY 29, 1911.

1,009,809.

Patented Nov. 28, 1911.

Fig. 1.

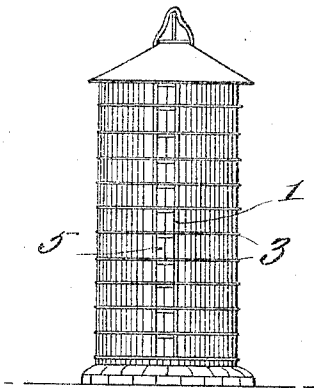


Fig. 2.

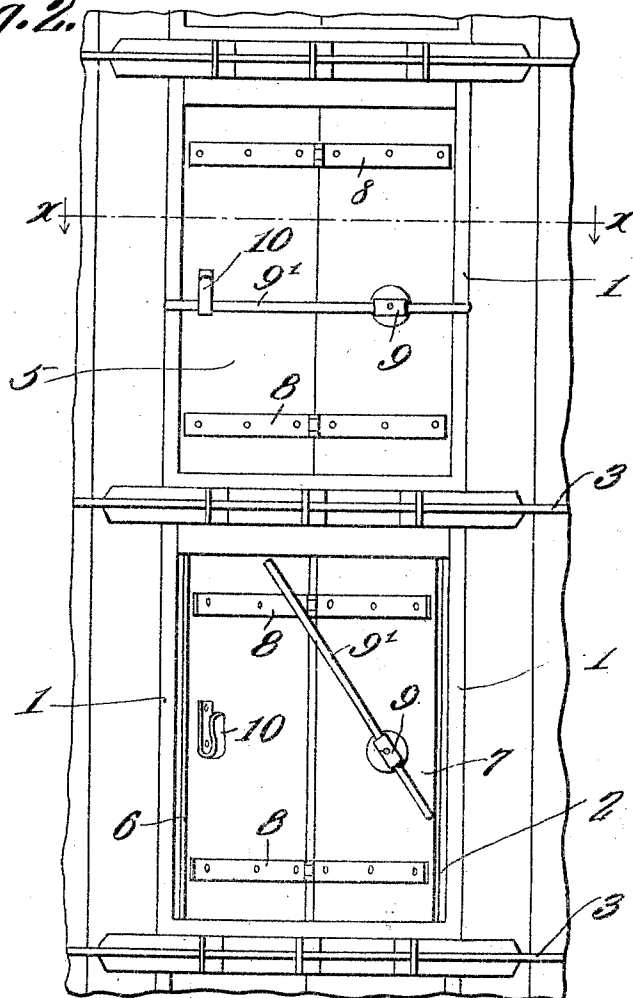
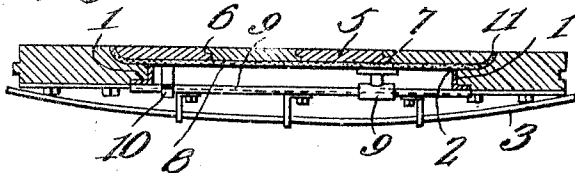


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES P. VERNIER, OF CEDAR RAPIDS, IOWA.

SILLO-DOOR.

1,009,809.

Specification of Letters Patent. Patented Nov. 28, 1911.

Application filed May 29, 1911. Serial No. 630,979.

To all whom it may concern:

Be it known that I, CHARLES P. VERNIER, a citizen of the United States, residing at Cedar Rapids, in the county of Linn and State of Iowa, have invented a new and useful Sillo-Door, of which the following is a specification.

This invention relates to improvements in silo doors, the primary object of the invention being the provision of doors which are arranged continuously and vertically upon one side of a silo, the said door being so mounted and constructed as to permit the emptying of the silo as the contents are removed therefrom, and providing a door removably wedged in the opening in the side of the silo and provided with sections which are hingedly connected together and adapted to be wedged in position and conform to the circumference of the silo and be held in such wedged position.

A further object of the invention is the provision of a door of peculiar construction and a frame in which the door fits protected against the usual wear and tear in loading and unloading the silo.

A further object of the invention is the provision of a sectional door hinged centrally and provided with a pivoted means for locking the sections in extended or wedged position.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings—Figure 1 is a side elevation of a silo showing the continuous doors in use thereon. Fig. 2 is a detail plan view showing one door closed with the other unclamped. Fig. 3 is a sectional view on line *x-x* Fig. 2, through a portion of the silo with the door in use.

Referring to the drawings, the numeral 1 designates the two walls alining the door

opening 2 of the silo. Around these openings and between the tightening rims 3 of the silo is an angle iron frame which is so mounted as to protect the edges of the openings around the door 5 so that in loading and unloading the silo the ends cannot be broken by the fork or other implement.

The door 5 consists of two sections 6 and 7 which are hingedly connected together by means of the two strap hinges 8, providing a means whereby the sections may be pushed inwardly as shown in Fig. 2 and be removed from the openings in the silo.

Mounted upon one section of the door is a pivoted bar 9 whose long end 9' is adapted to engage the wedging hook or cleat 10 in the other section and holds the door sections locked or wedged within the opening of the silo, and prevents its movement into or out of the door opening.

The opening engaging edges of the door are rounded and upon the inner face of the door opening is provided a gasket 11 or felt whereby when the doors are wedged in position, the curved edges of the doors will engage the felt gasket and thereby provide a gas tight joint for the silo.

By reason of the silo being made circular in cross section the peculiar hinging or forming of the doors in two sections and the means for holding the doors in locked position will cause the desired wedging action to hold the door within its opening so that no pressure from in or outside can force the door out of place, but by means of the wedging means carried by the sections, the door may be easily collapsed and removed by a simple turning of the movable member of the locking device.

What is claimed is:

A silo door comprising two sections two hinges connecting said sections together to permit the sections to be collapsed, a wedging cleat carried by one section on the outer face thereof between the hinges, a pivot post alining therewith and carried by the other section, and a bar connected to the pivot post of the other section and providing a short terminal and a long terminal, said long terminal being adapted to engage the

cleat and lock the door in silo opening closure position, the ends of the bar when in locked position being beyond the edges of the door to abut the outer face of the silo
5 and cause the sections to be drawn outwardly into opening engaging position.

In testimony that I claim the foregoing

as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLES P. VERNIER.

Witnesses:

J. R. WATSON,

H. L. WHITE.

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