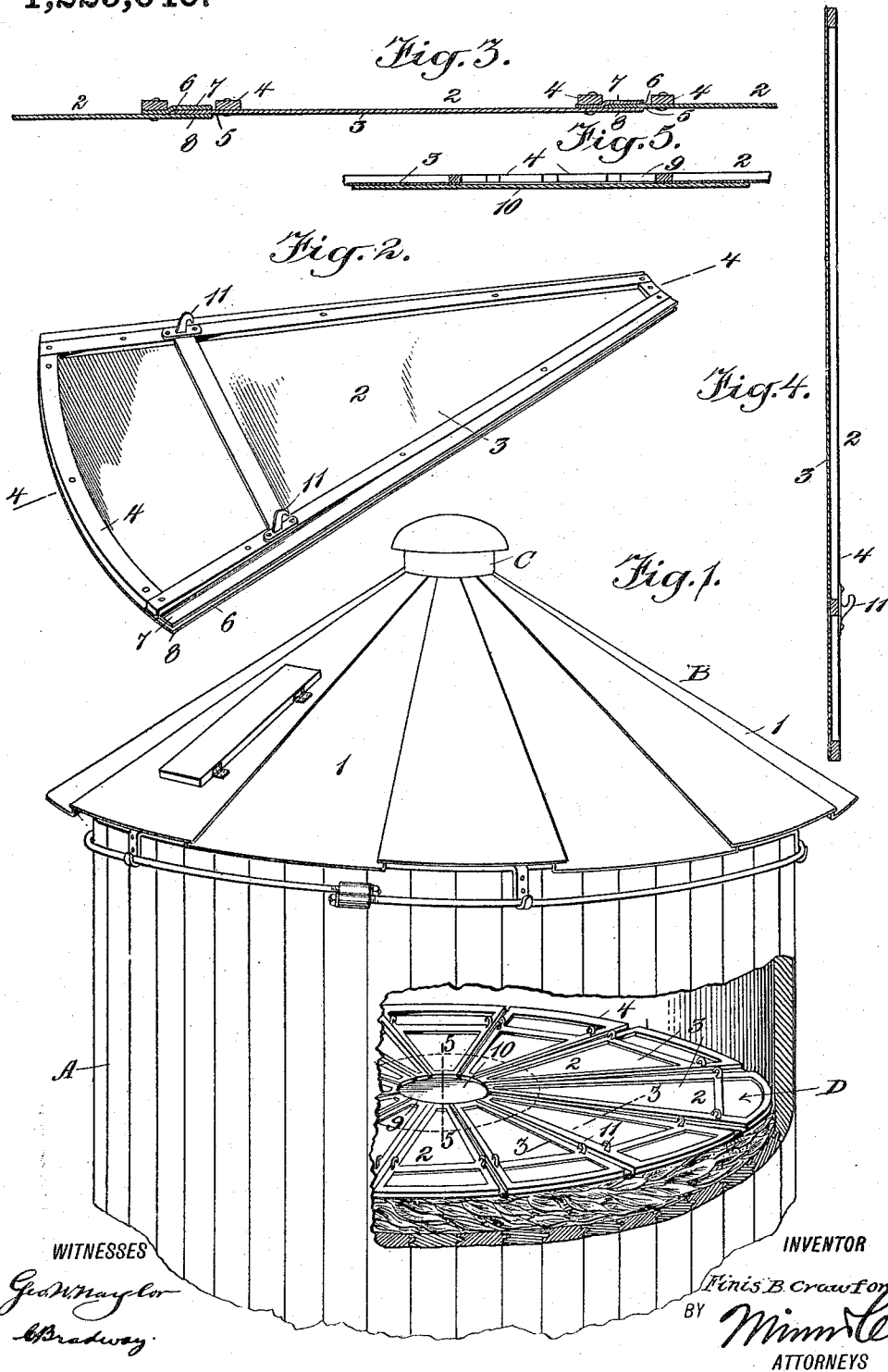


F. B. CRAWFORD.
SILO SEAL.
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1,229,040.

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UNITED STATES PATENT OFFICE.

FINIS B. CRAWFORD, OF ATLANTA, MISSOURI.

SILO-SEAL.

1,229,040.

Specification of Letters Patent.

Patented June 5, 1917.

Original application filed January 28, 1916, Serial No. 74,771. Divided and this application filed June 3, 1916. Serial No. 101,501.

To all whom it may concern:

Be it known that I, FINIS B. CRAWFORD, a citizen of the United States, and a resident of Atlanta, in the county of Macon and State of Missouri, have invented a new and Improved Silo-Seal, of which the following is a full, clear, and exact description.

This invention relates to seals for silos for covering the upper surface of the silage for preventing the spoiling of the upper zone thereof, this being accomplished by excluding the air from contact with the silage.

The invention has for its general objects to provide a simple, novel and useful construction for a seal, whereby the same can be adapted to silos of various diameters and which can be easily and conveniently laid or taken up by reason of the fact that the seal is constructed of sections which are independently laid with interfitting edges.

A more specific object of the invention is the provision of a seal of such construction that it can be used with silos of different diameters, the sections of the seal being sector-shaped so that when they are put together to form the seal the latter will be in the shape of a flat disk in connection with which a plate is used at the center to close the opening formed by the inner edges of the section.

With such objects in view, and others which will appear as the description proceeds, the invention comprises various novel features of construction and arrangement of parts which will be set forth with particularity in the following description and claims appended hereto.

In the accompanying drawing, which illustrates one embodiment of the invention and wherein similar characters of reference indicate corresponding parts in all the views,

Figure 1 is a perspective view of the upper portion of a silo with a part of the wall broken away to illustrate the seal;

Fig. 2 is a perspective view of one section of the seal;

Fig. 3 is a detail sectional view on the line 3—3, Fig. 1, showing the manner in which the sections of the seal are joined together;

Fig. 4 is a longitudinal section on the line 4—4, Fig. 2, through one of the seal sections; and

Fig. 5 is a diametrical section on the line 5—5, Fig. 1.

The construction of the silo roof and the relation of the seal thereto when forming an extension for the silo is disclosed in my application for Letters Patent, Serial No. 74771, filed January 28, 1916, and of which this invention is a division. Briefly, the silo comprises a body A of suitable construction which is closed at the top by a roof or cover B made up of triangular or sector-shaped sections 1 hingedly fastened at their lower ends to the silo body and fitting together to form a conical shaped roof, the apex of which is closed by a cap C. Within the silo is a seal D which is of flat disk-like form of such diameter as to fit entirely around and within the silo body to effectively exclude the air from the top of the silage, thereby keeping the latter always in proper condition and preventing waste. This seal, which rests of its own weight on the top of the silage, is made up of individual sections 2 which are separately laid or taken up, and by being made in sections the seal can be adapted to silos of different diameters, it being merely necessary to select the right number of sections to complete the seal. Each section is a flat metal plate 3 reinforced by a marginal frame 4. One side edge of each plate forms a tongue 5 which extends beyond the reinforcing frame 4, and the opposite longitudinal edge is formed into a groove 6 by riveting a strip 7 to the plate 3, so that said strip 7 will cooperate with the projecting marginal edge 8 of the plate 3 to thereby form the groove or pocket 6. The tongues and grooves are of considerable dimension transversely of the sections, so that there will be a large margin to insure their fitting together to form seals of different sizes, according to the diameter of the silos within given limits. The inner ends of the sections do not meet, so that an opening 9 is formed at the center of the seal, and this opening is closed by a circular plate 10 of which the inner ends of the sections rest. In laying the sections of the seal it will be understood that the tongue and groove edges will be fitted together, except where the last section is laid, and in this case one edge of the last section will simply lie on top of the adjacent edge of the first laid section. The sections of the seal are provided with hooks 11 adjacent their outer

portions to cooperate with suitable means on the sections 1 of the roof to form a body extension when the silo is being filled, as explained in the parent application herein-
5 before referred to.

From the foregoing description taken in connection with the accompanying drawing, the advantages of the construction and method of operation will be readily understood by those skilled in the art to which
10 the invention appertains, and while I have described the principle of operation, together with the device which I now consider to be the best embodiment thereof, I
15 desire to have it understood that the device shown is merely illustrative and that such changes may be made when desired as fall within the scope of the appended claims.

Having thus described my invention, I
20 claim as new and desire to secure by Letters Patent:

1. In a silo, the combination of a silo body, with a seal therein composed of plates independently laid and detachably connected together to form a disk-like element resting
25 on the top of the silage.

2. The combination of a silo body, a cover therefor, and a seal under the cover and resting on the silage, said seal consisting of sector-shaped sections having tongue and
30 groove interfitting joints permitting detachment of the sections, the inner edges of the sections forming an opening, and a plate closing the opening.

3. The combination of a silo body, with a
35 seal therein, said seal being formed of approximately triangular sections arranged with their side edges together to form a disk-like element with an opening at the center, and a plate under the center of the
40 disk-like element and on which the inner ends of the sections rest.

4. A seal for a silo, comprising a disk-like element composed of sector-shaped sections having interfitting edges whereby the
45 sections are detachably connected together.

5. A seal for a silo, comprising a disk-like element composed of sector-shaped sections having interlocking radial edges, the inner ends of the sections forming an opening,
50 and a plate for closing the opening.

FINIS B. CRAWFORD.

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