

No. 870,477.

PATENTED NOV. 5, 1907.

G. E. SNYDER.  
FEED HOPPER.

APPLICATION FILED MAR. 26, 1907.

2 SHEETS—SHEET 1.

Fig. 1

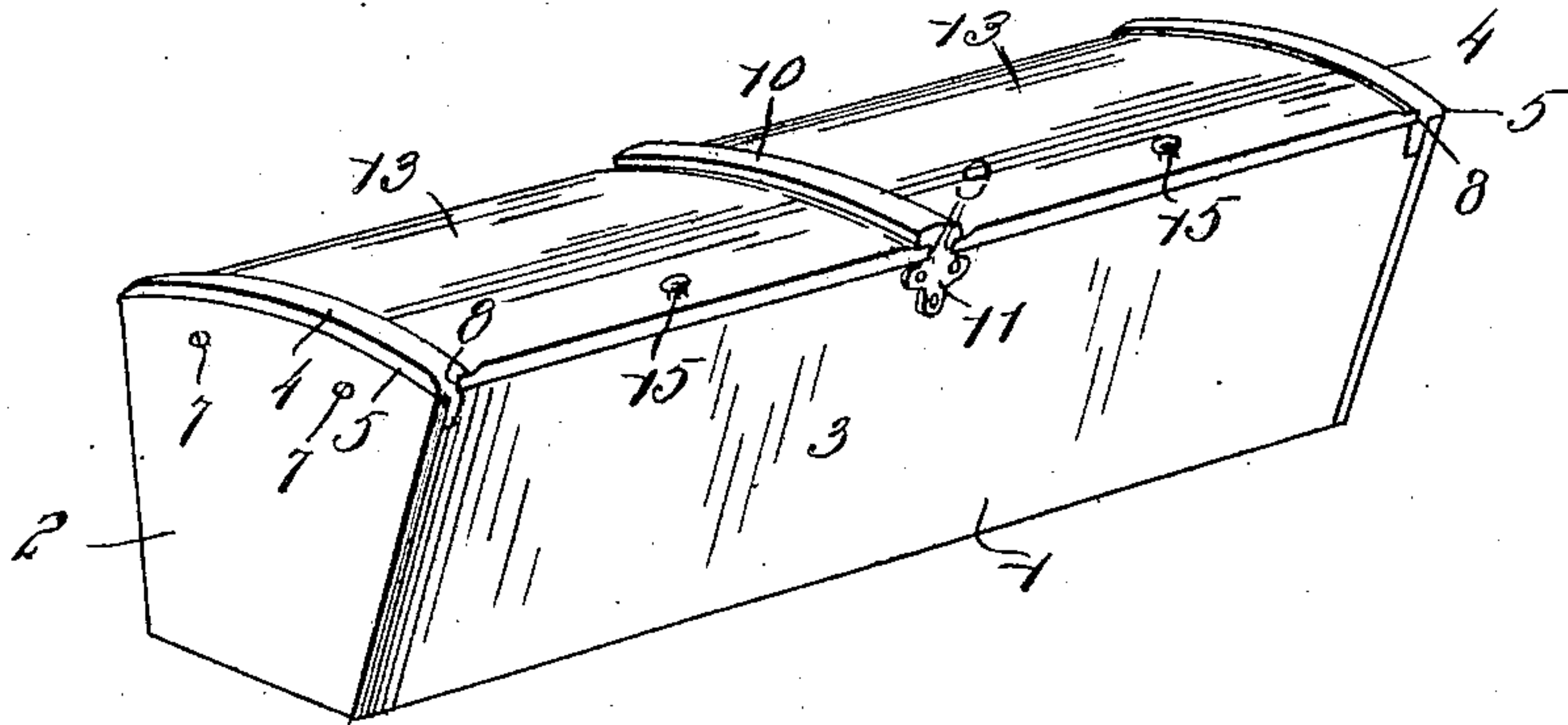


Fig. 2

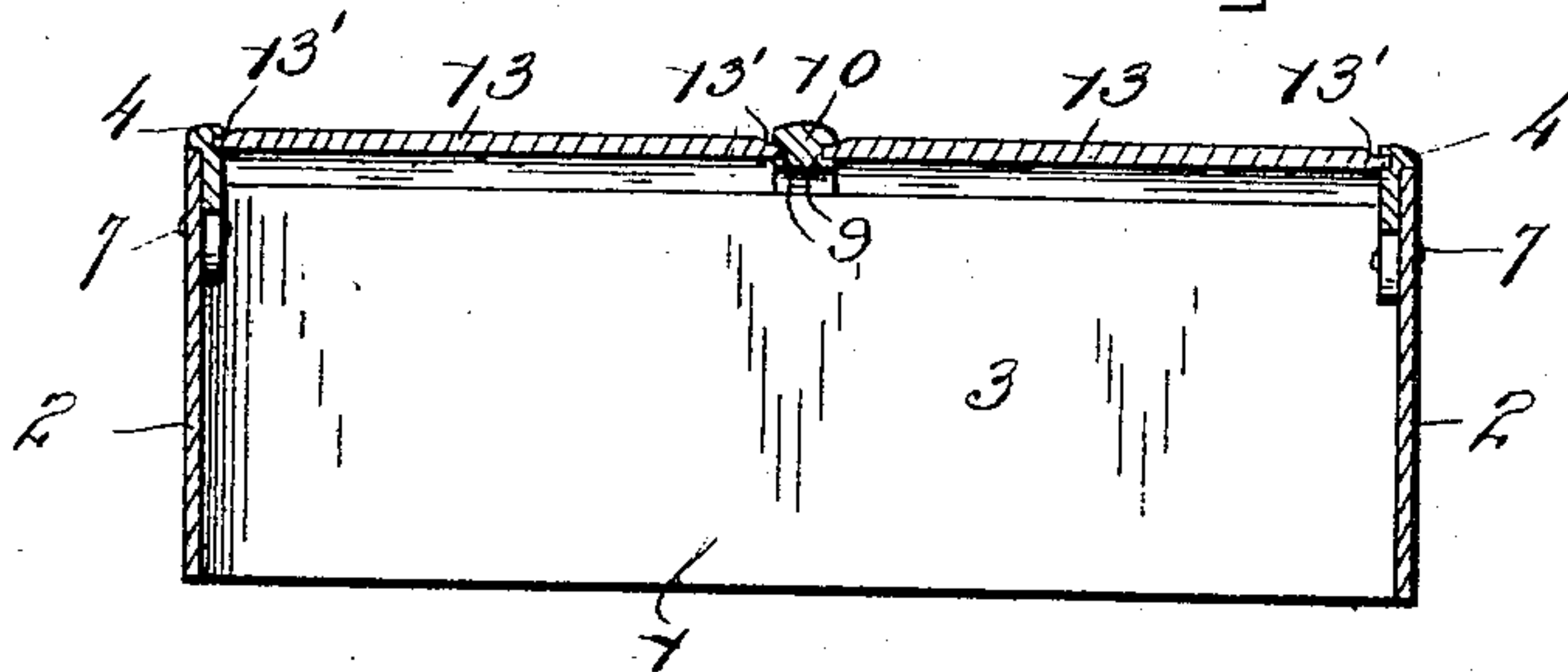
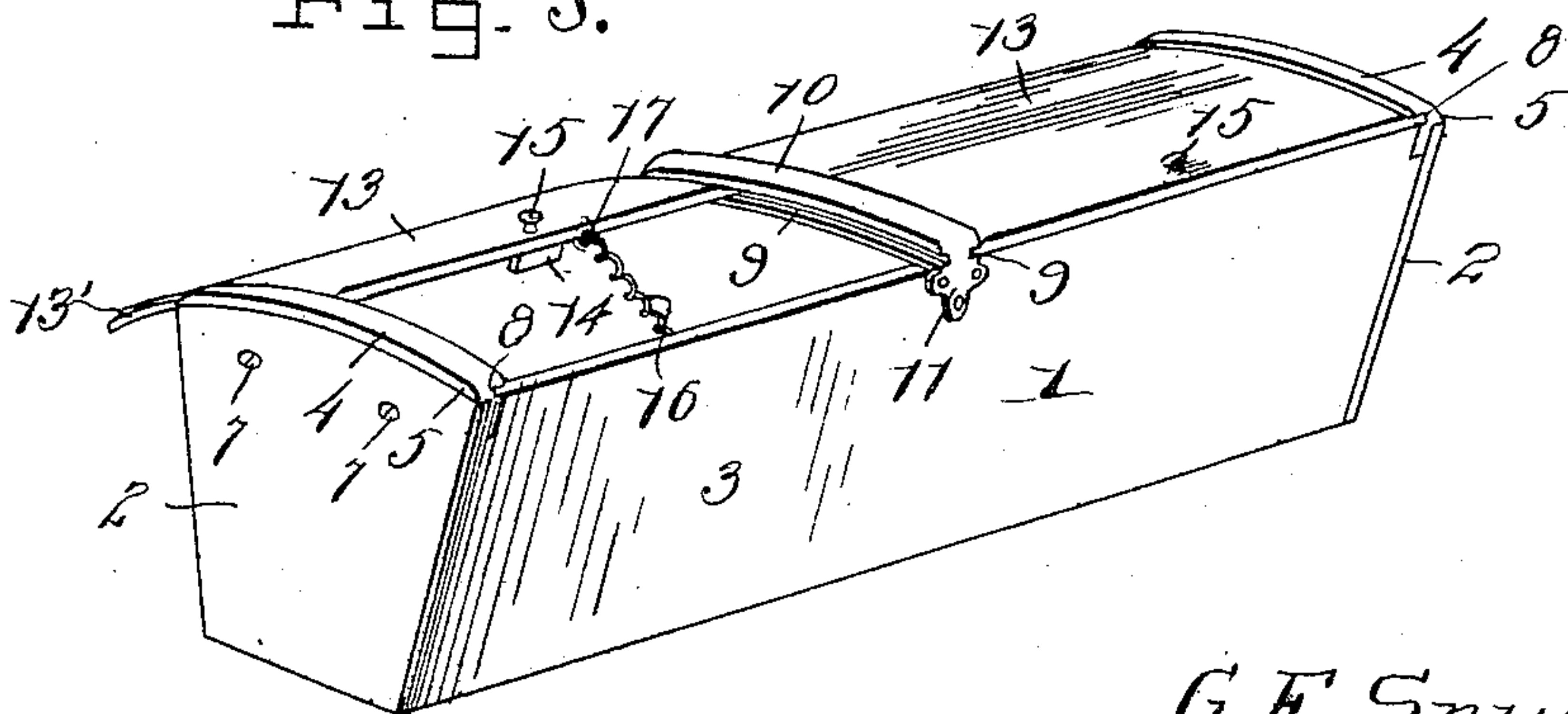


Fig. 3.



Inventor

G. E. Snyder,

Witnesses  
L. L. Armstrong.  
H. H. H. H.

By

Charles C. Snyder

Attorneys

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G. E. SNYDER.  
FEED HOPPER.

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2 SHEETS—SHEET 2.

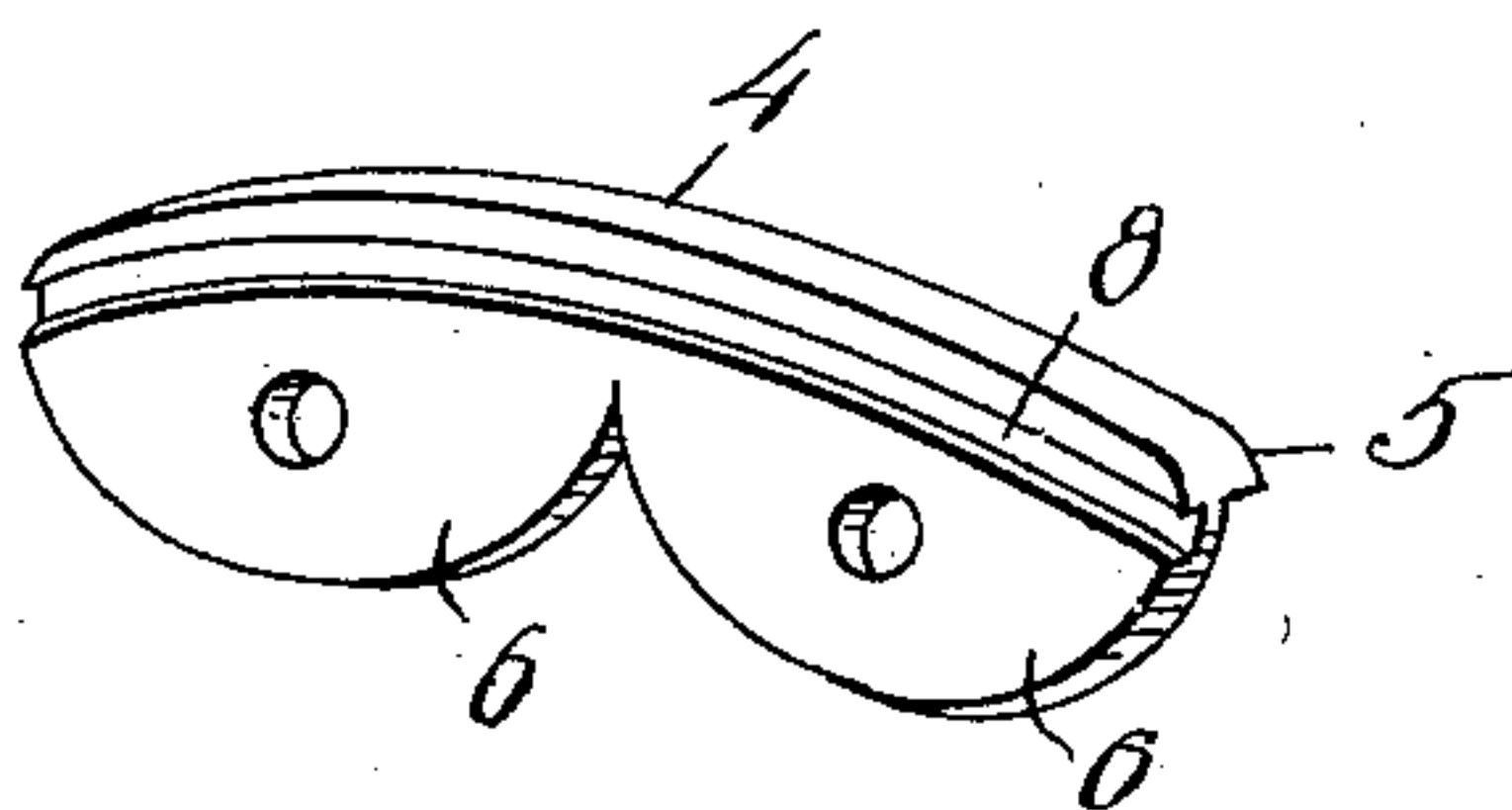
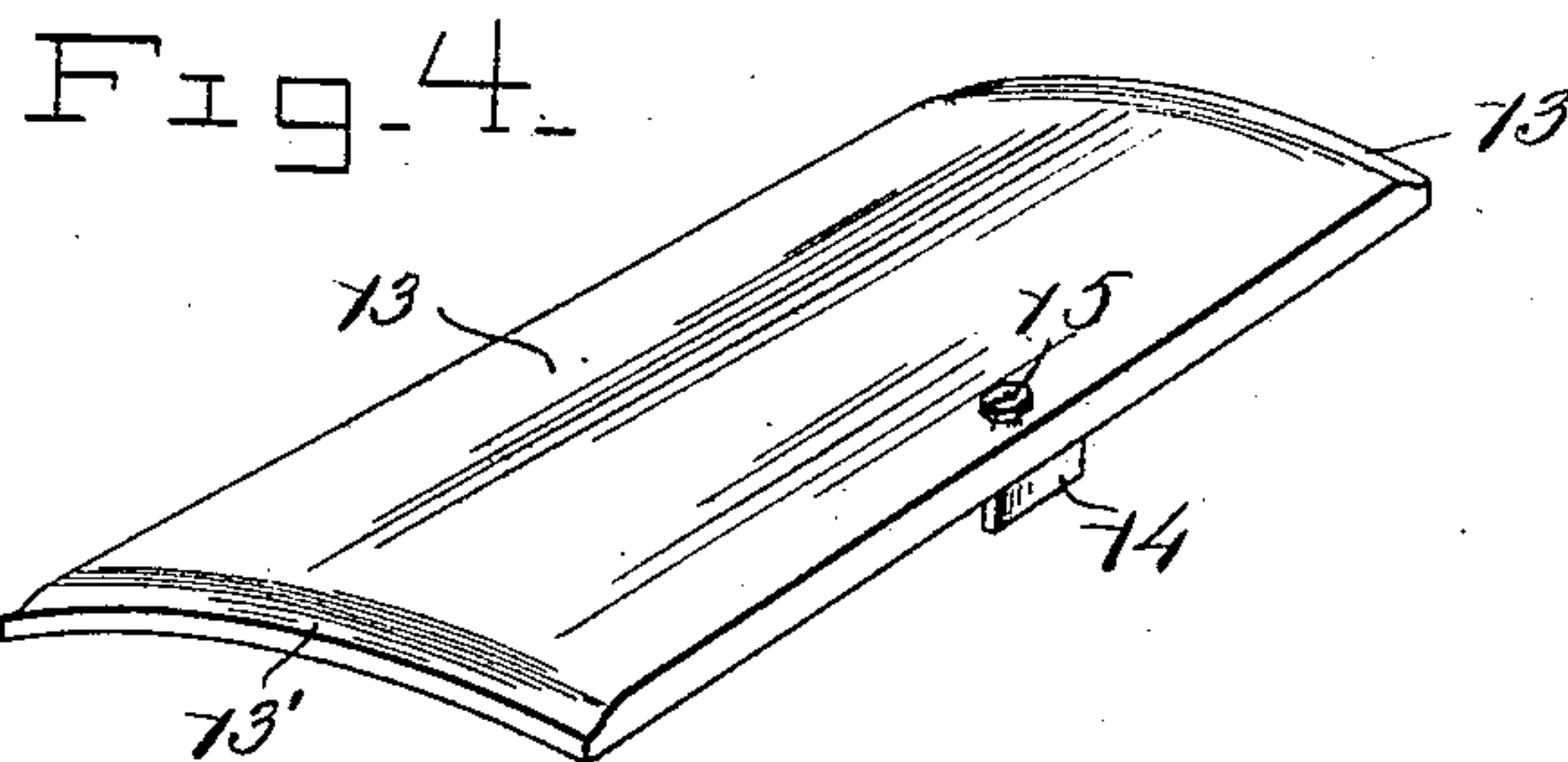


Fig. 5.

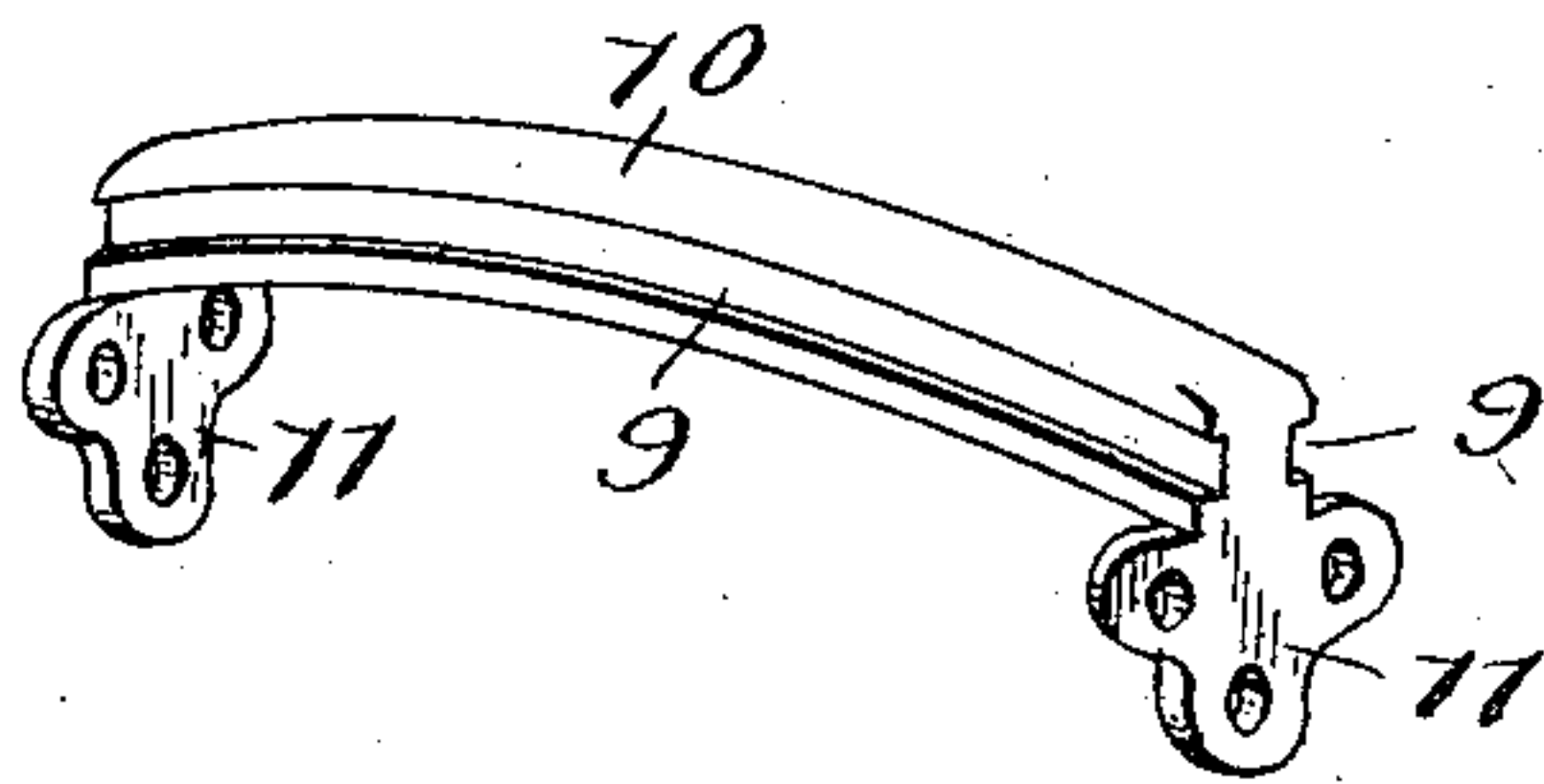


Fig. 6.

Inventor

G. E. Snyder,

Witnesses  
A. C. Cunningham,  
J. H. H. H.

By

Charles H. H. H.

Attorneys



# UNITED STATES PATENT OFFICE.

GRANT E. SNYDER, OF COOPERSTOWN, NORTH DAKOTA.

## FEED-HOPPER.

No. 870,477.

Specification of Letters Patent.

Patented Nov. 5, 1907.

Application filed March 25, 1907. Serial No. 364,385.

*To all whom it may concern:*

Be it known that I, GRANT E. SNYDER, a citizen of the United States, residing at Cooperstown, in the county of Griggs, State of North Dakota, have invented certain new and useful Improvements in Feed-Hoppers; 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.

10 This invention relates to new and useful improvements in feed hoppers for grain drills and fertilizer distributors, and it has for its object to provide a novel construction, combination and arrangement of parts.

15 The details of construction will appear in the course of the following description in which reference is had to the accompanying drawings forming a part of this specification, like characters of reference designating similar parts throughout the several views, wherein:—

20 Figure 1 is a perspective view of a feed hopper constructed in accordance with the present invention. Fig. 2 is a central longitudinal section thereof. Fig. 3 is a view similar to Fig. 1 showing one of the covers partially displaced. Fig. 4 is a detail perspective view of such a cover of which two are preferably employed. Fig. 5 is a detail perspective view of one of the castings which are secured at each end of the hopper, and Fig. 6 is a detail perspective view of a casting secured centrally of the hopper and spanning the same.

30 The invention in its practical embodiment comprises a hopper 1, having wedge-shaped end walls 2, and side walls 3, converging from their upper and lower ends, said hopper being preferably open-ended and adapted for use in connection with any grain drill of conventional form. At the ends of the hopper 1 are 35 mounted the castings, one of which is illustrated more particularly in Fig. 5. Such casting is designated by the numeral 4 and its body portion projects at one side as at 5, and coacts with depending apertured lugs 6, to afford a shoulder which rests upon the upper 40 edge of the adjacent wall 2. Bolts or other approved fastening means 7 are passed through the lugs 6 and through said end walls 2, and serve to secure the castings 4 to the hopper 1. Said castings 4 are formed on their inner faces with arcuate grooves 8 which 45 confront coextensive aligned grooves 9, provided in the sides of a centrally located casting 10, the latter being illustrated more particularly in Fig. 6. The casting 10 is provided at its ends with a plurality of apertured angularly disposed lugs 11 which are fixed by bolts or 50 other approved fastening means to the sides 3.

The hopper 1 is closed at its top by the covers which

are illustrated in Figs. 3 and 4. These covers, designated by the numeral 13 are counterparts in construction, each consisting of an integral section of metal, curved conformably to the grooves 8 and 9, and having 55 its reduced end portions 13' disposed within said grooves and engaging the walls thereof as guides. The covers 13 at their front edges are formed with angularly disposed extensions 14, terminating short of the end edges of said covers and being designed to limit the movement of the same in either direction by impinging the 60 sides 3. Knobs 15 are provided upon each of the covers 13 and serve to afford convenient means for manipulating the same. It is preferred to provide means for preventing displacement of the covers from 65 vibration in the use of the drill and with this object in view retractile coil springs 16 are employed which have their ends detachably engaged in eyes 17, provided upon each of the covers and upon the side wall 3 with relation to which the covers are moved in open- 70 ing and closing the seed hopper. It is obvious that the provision of two covers affords easy and independent access to either side of the hopper.

The castings and covers may be readily applied to seed hoppers of varying conventional form and afford 75 a construction of marked inexpensiveness, simplicity and efficiency.

From the foregoing description it will be seen that simple and efficient means are provided for accomplishing the objects of the invention, but while the 80 elements herein shown and described are well adapted to serve the functions set forth, it is obvious that various minor changes may be made in the proportions, shape and arrangement of the several parts without departing from the spirit and scope of the invention 85 as defined in the appended claim.

What is claimed is:

The combination with a seed hopper, of castings secured at the ends thereof and having their inner faces formed with arcuate grooves, a casting secured centrally thereof 90 parallel to said first named castings and having its faces formed with arcuate grooves confronting and in alinement with said first named grooves, arcuate covers having their ends disposed within said respectively confronting grooves, said covers having angularly disposed extensions project- 95 ing from their front edges, and terminating short of their end edges and coil-springs having their ends engaged with the front portions of said covers and with the adjacent front wall of said hopper.

In testimony whereof, I affix my signature, in presence 100 of two witnesses.

GRANT E. SNYDER.

Witnesses:

R. S. LUNDE,  
JOHN O. OIE.