F. A. FREELAND.

HAYSTACK COVER.

APPLICATION FILED APR. 30, 1913.

1,092,707. **Patented Apr. 7, 1914.**

Fig. 1.

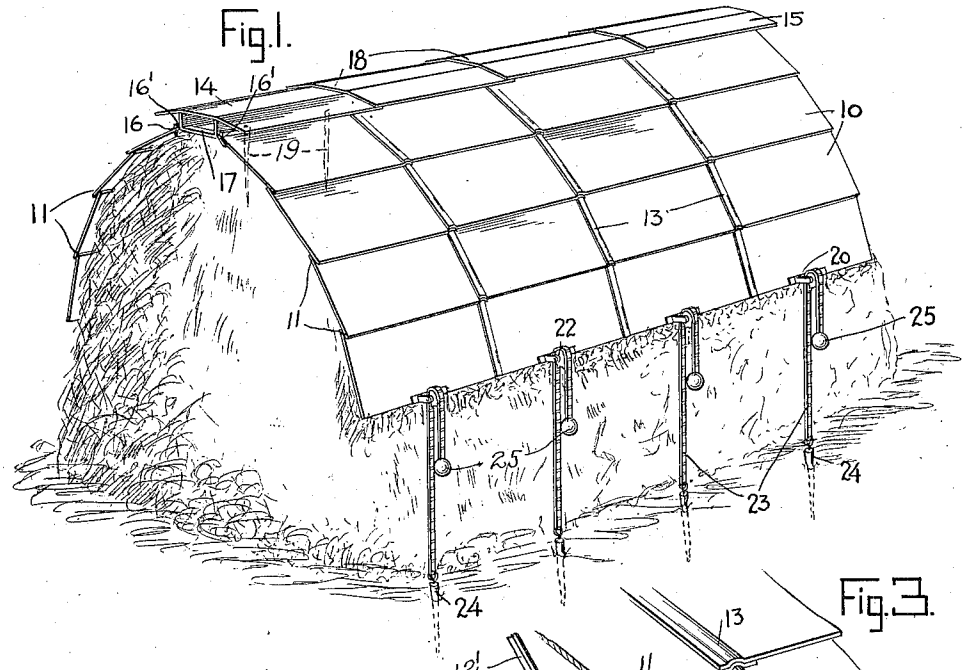


Fig. 3.

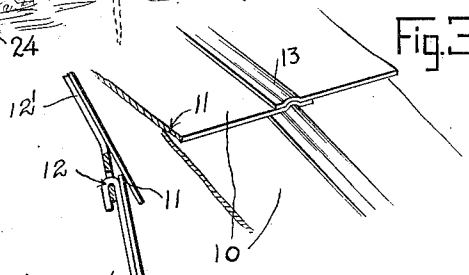


Fig. 2.

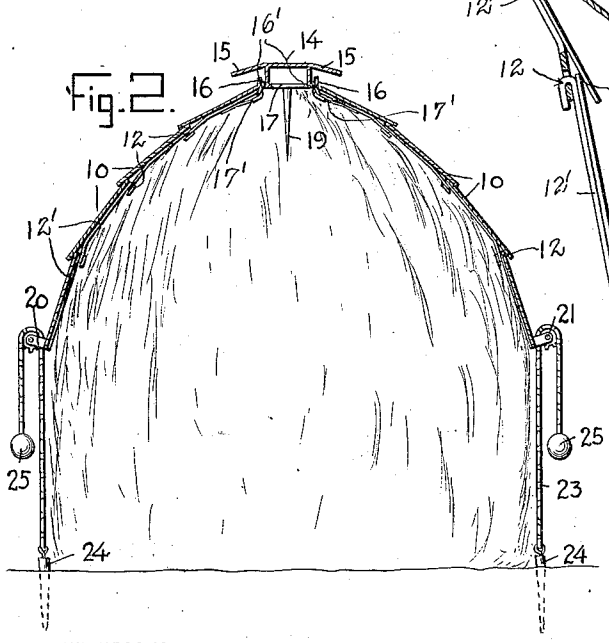
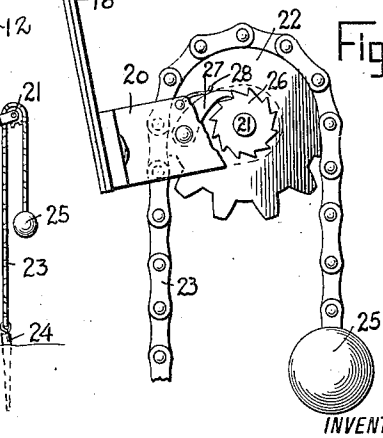


Fig. 4.



WITNESSES

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HAYSTACK-COVER.

1,092,707. Specification of Letters Patent. Patented Apr. 7, 1914.

Application filed April 30, 1913. Serial No. 764,551.

To all whom it may concern:

Be it known that I, FRANK A. FREELAND, a citizen of the United States, and a resident of Uniontown, in the county of Worth and State of Missouri, have invented a new and Improved Haystack-Cover, of which the following is a full, clear, and exact description.

This invention has special reference to novel and useful improvements in covers for hay stacks.

The primary object of the invention resides in the provision of an improved cover of the above character which will automatically adjust itself to a stack as the latter settles, whereby the stack will not only be protected, but the cover will be prevented from blowing loose in case of high winds.

With the above and other objects in view the invention resides in the combination and arrangement of parts to be hereinafter more fully described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a perspective view of my improved self-adjusting hay stack cover applied to a stack; Fig. 2 is a vertical section through the stack and cover to more clearly illustrate the relative positions of the sections of the cover and the prongs or anchoring means to prevent lateral or longitudinal displacement of the cover; Fig. 3 is an enlarged detail perspective view of a plurality of the sections forming the cover, to illustrate the manner of joining the same; and Fig. 4 is an enlarged sectional elevation of a fragmentary portion of the cover and one of the adjusting members by which the cover is automatically held to the stack.

It is a well known fact that hay stacks and the like will settle considerably and thus be reduced in height, so that it is necessary in providing a cover to protect the same, to hold the cover in contact with the stack as it settles, whereby the cover will be held from displacement, especially in inclement weather and where there are high winds stirring.

In carrying out my invention, my improved cover in its preferred embodiment is illustrated as being formed of a plurality of sections 10, preferably of rectangular form and constructed of suitable waterproof material, such as galvanized sheet iron. Any number of the sections 10 are provided, this being controlled by the size of the stack, and from the drawings it will be observed that the sections are arranged in longitudinal alinement so that the lower edges of the uppermost sections will overlie or overlap the top edges of the sections therebeneath, as shown at 11. At these overlapping edges the sections may be connected, as shown at 12, by means of strips 12′ having coengaged hooks and eyes, and it will be seen that a very desirable drain surface will be provided so that all possibility of water entering the stack will be obviated. The vertical edges of the sections remote from the extremities of the cover are also disposed in overlapped relation, as shown at 13, and are preferably corrugated, as illustrated, so that the corrugations of the lowermost sections will enter the concaves of the corrugations of the uppermost sections and form water-tight joints. The raised portions thus provided will also form drain channels which will not only serve to prevent the entrance of water into the stack from between the sections of the cover, but will also prevent the water from draining transversely or diagonally to one particular point, and by this means the thorough absorption of the water into the soil around the stack is insured.

A plurality of the cover sections above described are mounted on the sloping sides of the stack and connected at their upper longitudinal edges to ventilators 14, each preferably consisting of channel-shaped members having overhanging eaves 15, and having at their bottom portions upwardly extending hooks 16 to which the upper longitudinal edges of the cover sections are joined. The detachable connections between the upper longitudinal edges of the cover and the ventilator sections are accomplished by means of loops 16′ engaged on the hooks 16, and which are in turn engaged by snap hooks 17′ at the upper ends of the uppermost strips 12′. Each ventilator is provided at its bottom with a plurality of longitudinally spaced transverse straps or cross members 17, and since the ventilators are disposed to overlie one another, as illustrated at 18, the stack is allowed to freely ventilate through the open ends of the channel-shaped sections thus provided. Each ventilator, preferably at spaced points, is provided with depending

prongs 19 providing anchoring means which will enter the stack, as shown in Fig. 2 of the drawings, to hold the cover from displacement longitudinally or transversely. By making the ventilator in sections, the latter can be independently anchored by the prongs 19 and the sections then independently attached, the prongs holding the sections at one side until the sections at the other side are attached. The sections may be removed independently so as to uncover a portion of the stack, medially or at the ends.

In order to cause the cover to automatically conform to the stack as the latter settles, whereby the stack will be thoroughly protected and the cover will be held from being blown loose, the lower edges of the lowermost sections are provided with outstanding brackets 20, preferably in the form of spaced bearing ears, each pair having a shaft 21 rotatably mounted therein. A sprocket wheel 22 is fixed to each shaft and is engaged by a chain 23, each of the latter of which are anchored in any suitable manner to the ground directly therebeneath, as shown at 24. A series of these chains are thus provided along the sides of the stack, and the free extremity of each chain carries a weight 25, preferably in the form of a ball, which latter, by their weight, tend to rotate the sprocket wheels and draw the cover toward the stack and hold it at all times, especially during the settling stages, in conformity to the stack. Each shaft 21 also has fixed thereto a ratchet wheel 26, and between the ears of each bracket a pawl 27 is pivoted to normally bear against the teeth of the ratchet wheel, as by means of a spring 28 normally exerting downward pressure thereon. By this means, as the weights 25 cause the turning of the sprocket wheels and shafts, whereby the inner laps of the chains are shortened to draw the cover toward the stack, said pawls will engage the teeth of the ratchet wheels and prevent opposite rotation thereof and consequent loosening of the cover.

From the foregoing description it will thus appear that I have provided a very simple and reliable cover for hay stacks and the like, the especial advantage of which is the fact that the cover will at all times be drawn toward, or automatically adjusted to the contour of the stack, whereby the device is not only prevented from being blown loose, but is also capable of being transported, by the removal of its anchoring means, to any desirable position in a field.

Having thus described my invention, what I claim is:—

1. The combination with a sectional cover adapted to envelop a stack or the like; of weighted means arranged at either side of the cover to normally draw and maintain the cover in operative position, and means carried by the cover to hold the weighted means against opposite movement.

2. A cover of the class described, comprising a ventilator having overhanging eaves, cover sections connected to the ventilator at either side thereof to envelop a stack, brackets carried at the bottom portions of the cover sections, shafts journaled in the brackets, and tensioning means carried by the shafts to draw the cover toward the stack, said tensioning means embodying sprocket wheels fixed to the shafts, chains engaged on the sprocket wheels and anchored each at one end along the sides of the stack, weighted means at the free extremities of the chains, and means to prevent opposite rotation of the shafts against the action of said weighted means.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK A. FREELAND.

Witnesses:
F. B. CHANEY,
H. U. BALCH.

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