

(No Model.)

E. R. KUGLER.
HAY BINDER.

No. 409,983.

Patented Aug. 27, 1889.

Fig. 1.

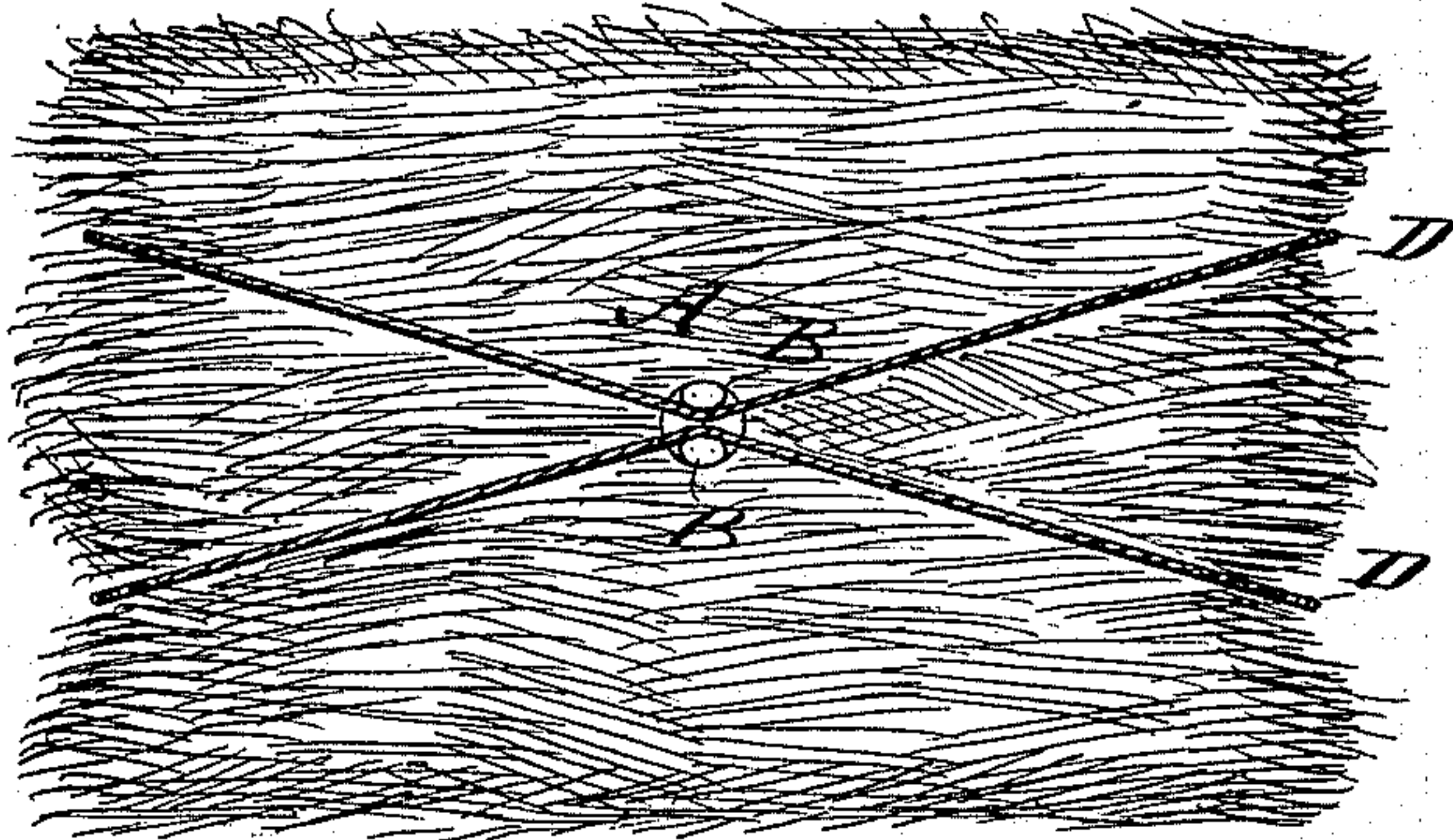


Fig. 2.

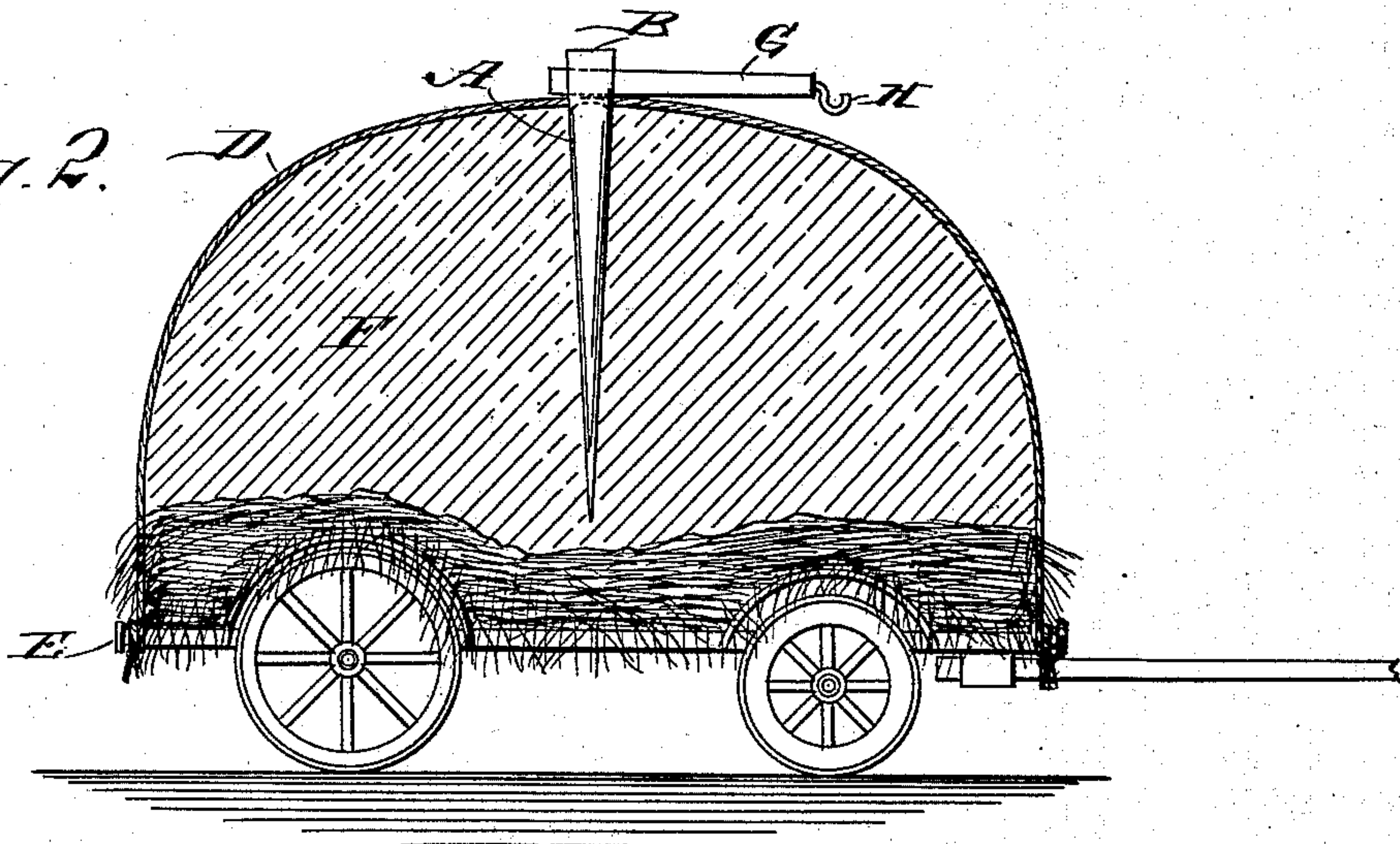


Fig. 3.

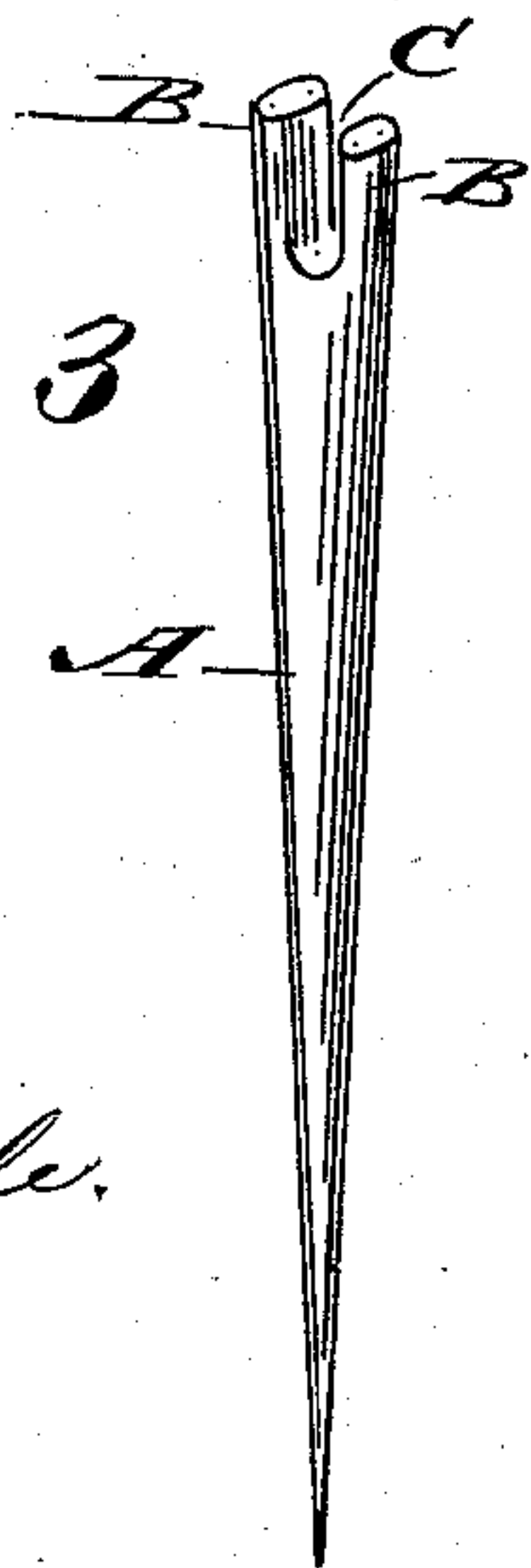
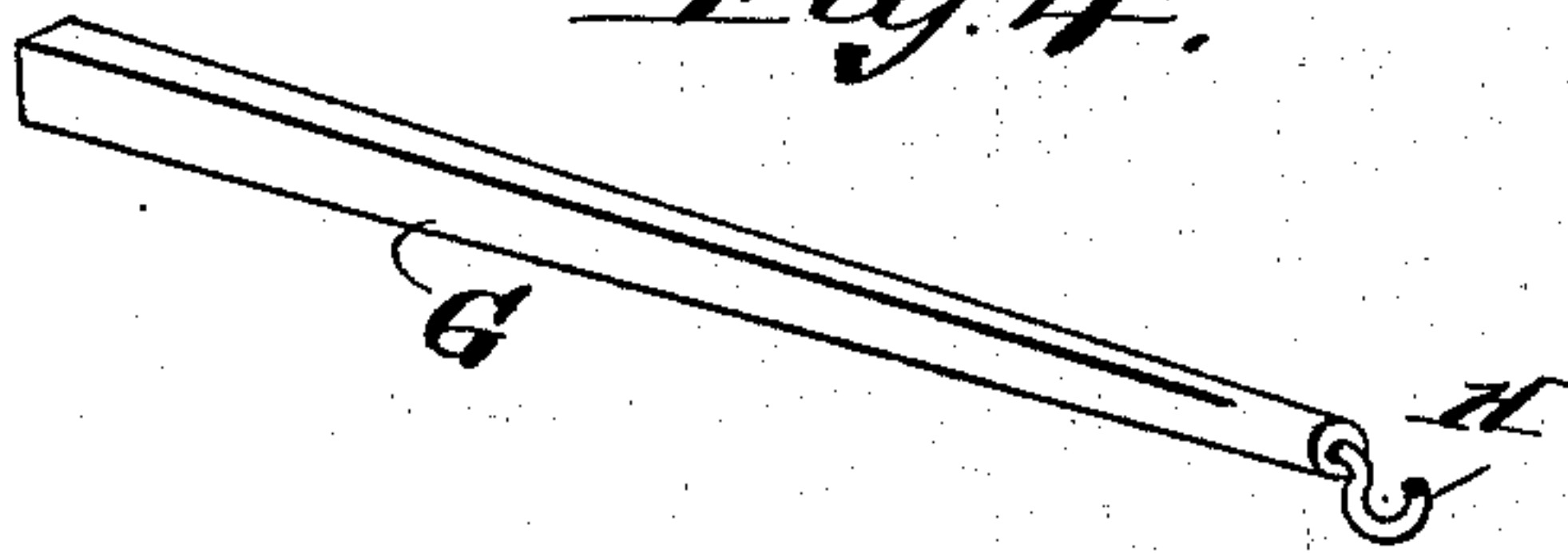


Fig. 4.



WITNESSES:

P. McArdle,
C. Sedgwick

INVENTOR:

E. R. Kugler

BY

Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

EPHRAIM R. KUGLER, OF KINGWOOD, NEW JERSEY.

HAY-BINDER.

SPECIFICATION forming part of Letters Patent No. 409,983, dated August 27, 1889.

Application filed May 22, 1889. Serial No. 311,726. (No model.)

To all whom it may concern:

Be it known that I, EPHRAIM R. KUGLER, of Kingwood, in the county of Hunterdon and State of New Jersey, have invented a new and Improved Hay-Binder, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved hay-binder, which is very simple and durable in construction and serves to quickly and securely bind the load of hay or other material to a wagon.

The invention consists of a post adapted to be set vertically in the load, and on which wind ropes secured at their ends to the wagon and passing over the load, and of a lever for turning and locking the said post, so as to wind the ropes on the latter.

The invention also consists of certain parts and details and combinations of the same, as will be hereinafter fully described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the improvement as applied. Fig. 2 is a side elevation of the same, showing part of the load in section. Fig. 3 is a perspective view of the post, and Fig. 4 is a like view of the lever.

The improved hay-binder is provided with a post A, preferably of cone shape, as shown in Fig. 3, and provided at its upper enlarged end with prongs B B, forming an opening C, through which pass the ropes D, preferably extending diagonally over the top of the load F and secured at their ends to the wagon E, carrying the load F. Between the prongs B B can be inserted one end of a lever G, provided at its other end with a hook H, over which one of the ropes D can pass after the load is tightened, as hereinafter more fully described.

The device is used as follows: When the load F is placed on the wagon E, the post A is set in the top of the load in the center, the upper end of the post projecting slightly above the load, as shown in Fig. 2. The ropes D are each secured by one end to one end of the wagon E, are then extended diagonally over the load, passed between the prongs B, and then extended to the other end of the

wagon and fastened. The operator now inserts the end of the lever G between the prongs B, and then moves the lever G around, so as to turn the post A in the load. The ropes D are thus wound on the upper end of the post, and consequently tighten the load F securely on the wagon E. When the load has been sufficiently tightened, the operator passes one of the ropes D over the end of the hook H, so that the lever G is locked in place and the post A is prevented from turning backward. When the operator desires to loosen the ropes D, he disconnects the rope D from the hook H, and then turns the lever G in the inverse direction, whereby the post A unwinds the ropes D and the latter can be disconnected from the wagon E. Thus it will be seen that a very simple device is provided for fastening a load of hay or other material to a wagon. The device can be used for hay or other stacks, the ends of the ropes then being secured to the ground or the bed on which the stack rests.

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

1. A hay-binder comprising a post adapted to be set vertically in the load, ropes secured at their ends and adapted to be wound on the said post, and a lever for turning and locking the said post, substantially as shown and described.

2. In a hay-binder, the combination, with a tapering post provided at its upper end with prongs, of a lever adapted to be inserted at one end between the said prongs for turning the said post and ropes secured at their ends and passing between the said prongs, substantially as shown and described.

3. In a hay-binder, the combination, with a tapering post provided at its upper end with prongs, of a lever provided with a hook and adapted to be inserted at one end between the said prongs for turning the said post, and ropes secured at their ends and passing between the said prongs, said hook adapted to hook on one of the said ropes, substantially as shown and described.

EPHRAIM R. KUGLER.

Witnesses:

WILSON RABERSON,
EDWARD N. DANLEY.