

W. H. ELLIOT.

Hay Tedder.

No. 91,001.

Patented June 8, 1869.

Fig. 1.

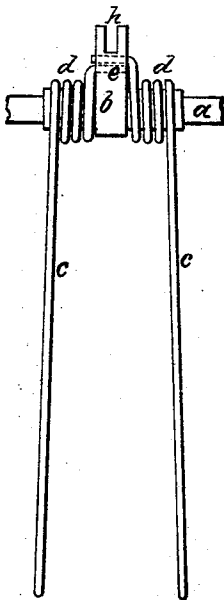


Fig. 2.

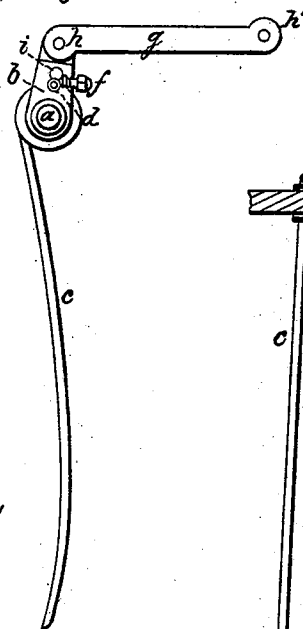


Fig. 3.

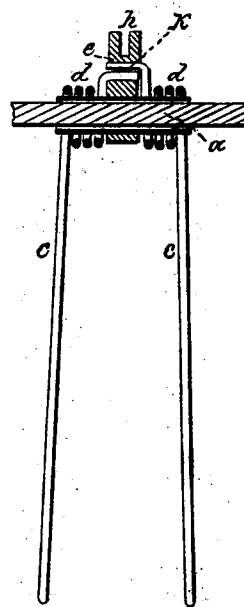


Fig. 7.

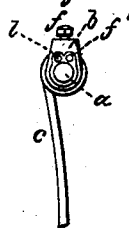


Fig. 4.

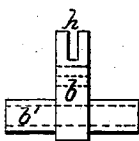


Fig. 5.

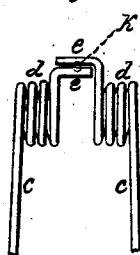
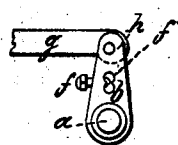


Fig. 6.



Witnesses.

Richardson
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Inventor.

W. H. Elliot

United States Patent Office.

WILLIAM H. ELLIOT, OF NEW YORK, ASSIGNOR OF ONE-HALF TO
M. D. MYERS, OF FRANKFORT, NEW YORK.

Letters Patent No. 91,001, dated June 8, 1869.

IMPROVEMENT IN HAY-SPREADERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM H. ELLIOT, of the city, county, and State of New York, have invented a new and improved Method of Fastening Tedder-Tines; and I do hereby declare that the following is a full and exact description thereof; reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Similar letters of reference indicate the same devices in all the figures.

To enable others skilled in the arts to comprehend, make, and use my invention, I will proceed to describe its nature, construction, and operation.

The nature of my invention consists in fastening the two single tines of a hay-tedder fork, by means of a pointed set-screw applied to a portion of the tine, bent off at right angles above the coil, so as to prevent vibration in the part under the pressure of the screw, thereby more effectually fastening the tines together, and to the head of the fork, than can be done by any other method.

Figure 1 is a front elevation of my improved fork.

Figure 2 is a vertical section from front to rear.

Figure 3 is a vertical section from side to side.

Figure 4 is a front elevation of the head without the tines.

Figure 5 is a front elevation of the tines without the head.

Figure 6 is a side elevation of the head.

Figure 7 is a side elevation of the head, showing another modification of my invention.

a, support of the fork.

b, head of the same.

b', part of the head which supports the coil.

c, tines.

d, coils of the tines.

e, end of the tines, bent at right angles.

f, set-screw.

f', point of the same.

g, connecting-rod.

h, joint between the connecting-rod and head.

h', joint between connecting-rod and an eccentric-rod.

i, hole through the head for the reception of the end of the tines.

k, depression in the end of the tines for the set-screw.

The fork is composed of tines *c*, head *b*, and set-screw *f*.

My invention relates to those tedder-forks in which the tines are made of separate pieces of wire, and its object is to fasten them together with sufficient firmness to prevent them from jarring loose by the sharp vibration which is kept up in them by the action of the tedder.

Great difficulty has been experienced by manufac-

turers in fastening tedder-tines. They have to be made of steel wire to obtain the necessary elasticity and strength, and the vibration of a steel tine, when in use, will work it loose from almost any fastening that can be applied to it.

In addition to vibration, the tine has a tendency to turn or twist around, which makes it necessary that the part of the tine to which the fastening is applied should be bent off at right angles to the rest of the tine.

It is desirable that the tines should be made in separate pieces, and fastened together, so that if one be broken it may be removed and replaced by another, without the loss of both tines; and to facilitate the removal of a broken tine, they should be fastened by a screw.

To attain these desirable ends, and to avoid the difficulties before mentioned, I construct my tedder-fork as follows:

The fork-head, as shown in figs. 4 and 6, has a horizontal part, *b'*, for the support of the coils, with a double opening through the vertical part, at *i*, for the reception of the tines.

It also has a set-screw, *f*, passing through the side of the head to the middle of the double opening. This set-screw is pointed, as seen at *f'*, so as to press between the tines like a wedge, thereby greatly increasing its power.

The tine is formed by bending the end of the wire off at right angles, of sufficient length to pass through the head, as seen at *e*, fig. 5; the coil is then wound, and the free end cut off long enough to form the tine, which is then curved, as seen in fig. 2.

The two tines are then placed upon the head, the bent ends, *e*, passing through the double opening *i*, and the set-screw turned down upon them. The point of the screw passes between the wires, and acts upon both tines at the same time.

A slight depression may be cut in the side of each wire, suited to the point of the same, as seen at *k*, which would tend to secure the tines more firmly under the same.

The same being applied to the bent portion of the tine *e*, this portion of the tine acts as a lever, to prevent it from turning or twisting around, and the wedge-point of the screw forced in between the two wires, effectually prevents vibration in that part of the tine.

My improved fork, as above described, may be adapted to any tedder by slight modification.

The one shown in the first six figures adapts it to the tedder patented by George E. Bent, in which an eccentric-rod is employed to give an oscillating motion to the fork.

The connecting-rod *g* joins the head of the fork to the eccentric-rod by means of joints *h* and *h'*, the fork being supported and oscillating upon rod *a*.

The modification of my invention, shown in fig. 7, is applicable in those cases in which it is necessary to attach the head and tines firmly to the support *a*.

In this case the double hole is so located that the set-screw forces the bent portion of the tines against the support, and thus holds the head, tines, and support firmly together; the coils being wound upon and supported by rod *a*, instead of an elongated portion of the head *b*.

I make no claim to the head independent of the peculiar means of fastening the tines herein shown, or to bending the tines at right angles, and passing them through the head, and riveting them or fastening by bolts, which press upon that portion of the wire which

is parallel with the tine; nor do I claim forming a loop or ring in the end of the tine above the coil, and fastening the tines by a rivet, through the loops and fork-head, as shown in the application of J. F. Thomas; but

What I do claim, and desire to have secured to me by Letters Patent of the United States, is—

The tedder-fork head *b*, tines *c*, and set-screw *f*, all being constructed and operating substantially as herein described and shown.

WM. H. ELLIOT.

Witnesses:

THOS. RICHARDSON,
F. P. McMANUS.