(No Model.)

D. GUPTILL.

HARVESTER SICKLE.

No. 259,757. Patented June 20, 1882.

Fig. 1.

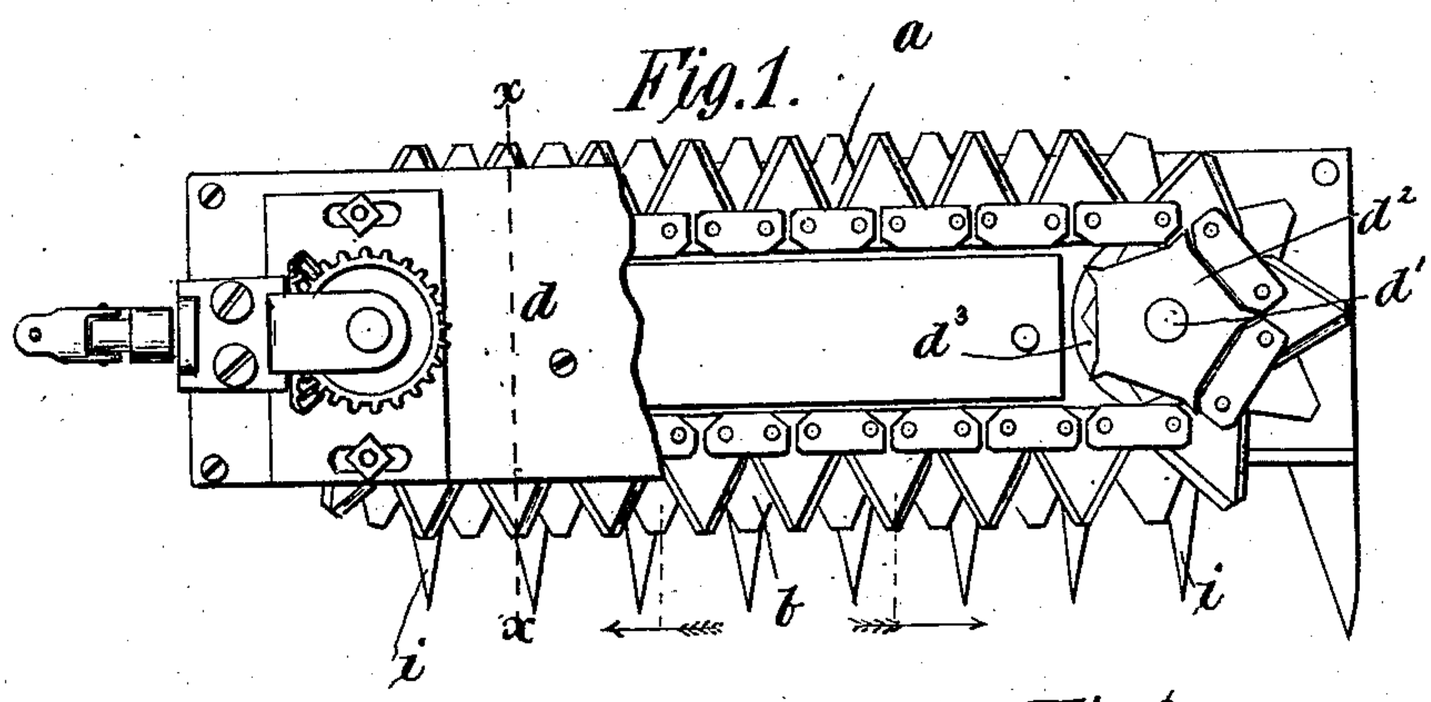


Fig. 3.

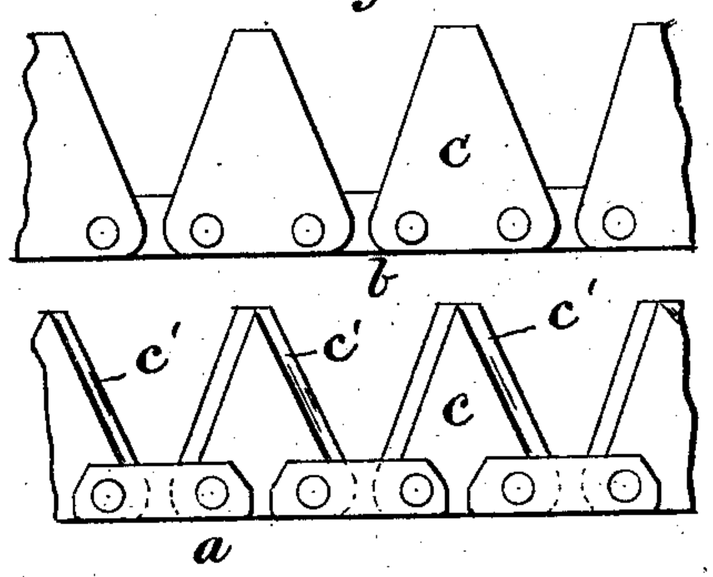


Fig. 2.

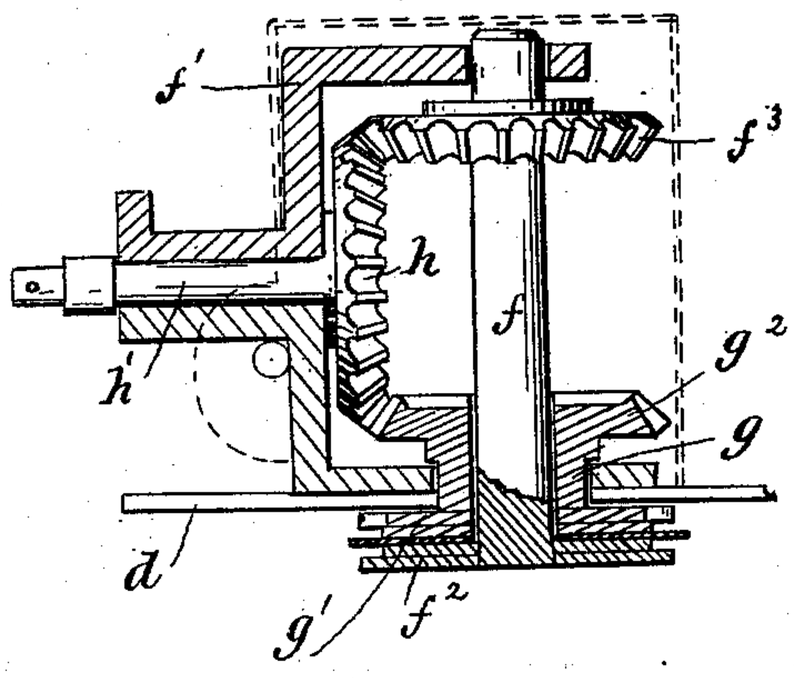


Fig. 4.

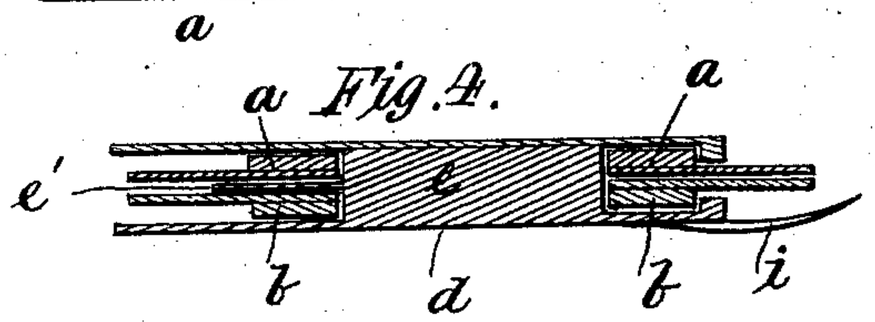
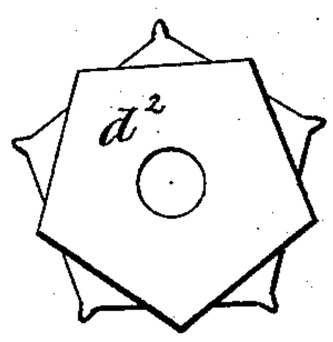


Fig. 5.



WITNESSES

P. B. Griffin

T. N. Griffin

INVENTOR

Dan Guptill

By R. S. V. & A. Lacey ATTORNEY'S

UNITED STATES PATENT OFFICE.

DAN GUPTILL, OF ELGIN, ILLINOIS.

HARVESTER-SICKLE.

SPECIFICATION forming part of Letters Patent No. 259,757, dated June 20, 1882.

Application filed April 22, 1882. (No model.)

To all whom it may concern:

Be it known that I, DAN GUPTILL, a citizen of the United States, residing at Elgin, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Harvester-Sickles; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in the cutting apparatus of harvesting-machines.

It consists essentially in the combination of the endless sickles, sprocket-wheels, shafts, and operating mechanism, and in other improvements, all of which will be hereinafter fully described, and specifically pointed out in the claims.

In the drawings, Figure 1 is a plan with a portion of the upper part of the casing removed. Fig. 2 is a detached sectional view, showing the operating mechanism. Fig. 3 shows a portion of the sickles in detail. Fig. 4 is a cross-section on line *x x*, Fig. 1, and Fig. 5 shows one of the pulleys hereinafter described.

a is the upper and *b* the lower sickle, constructed substantially alike, of cutters connected together so as to form an endless belt, and arranged one over the other, the lower sickle being inverted so as to bring the bevel *c'* on knives *c* on the lower side thereof, in order that the cutting-edges will rest flush one against the other.

In carrying out my invention I employ a suitable casing, *d*, consisting of upper and lower plates, properly secured together, in one end of which casing I fix the spindle or shaft *d'*, on which I journal the pulleys d^2, adapted to support the endless sickles in their revolution, as will be described. I employ two of these pulleys, one for each sickle, and between them I place the dividing-disk d^3, so as to prevent the sickles or pulleys interfering one with the other.

e is a block fixed to the lower and extended to the upper plate of casing.

e' e' is a thin dividing-plate extended rearward from block *e* between the sickles, so as to prevent the friction and consequent wear of the sickles one against the other when not cutting.

f is a shaft journaled in the framing *d* and a bracket, *f'*. On the lower end of this shaft I key the pulley or sprocket-wheel f^2, around which is passed and by which is revolved the lower sickle. Near the upper end of shaft *f*, within the bracket *f'*, I key the bevel-gear wheel f^3.

g is a hollow shaft journaled in the upper plate of the casing, around the shaft *f*, and above the pulley or sprocket-wheel f^2.

g' is a sprocket-wheel fixed to lower end of shaft *g*, around which is passed and by which is revolved the upper sickle.

g^2 is a bevel-gear wheel fixed to upper end of hollow shaft *g*.

h is a bevel-gear wheel, having shaft *h'* journaled within the side of bracket *f'*. This gear-wheel is arranged to mesh with wheels f^3 and g^2, the one above and the other below, so as to revolve the said wheels and their shafts, &c., in opposite directions one to the other.

i represents the fingers.

When so desired the upper plate of the casing may be constructed as a grain-platform, or such platform may be placed on and connected therewith.

In the operation of my device the sickles are placed in the position indicated in Fig. 1 around the pulleys or sprocket-wheels *g'*, f^2, and *d'*, and motion is given to the shaft *h'* by proper connection with the motive power of the harvester. The sickles then, by the construction and arrangement described, will be revolved in opposite directions, and the cutting edges of upper and lower sickle on the forward part of the cutting apparatus, being arranged adjacent to each other, will efficiently perform the desired cutting operation. As indicated in dotted lines, Fig. 2, I provide a suitable casing to be placed over the operating gear-wheels.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with the endless sickle

a, sprocket-wheel *g'*, shaft *g*, and bevel-gear wheel g^2, of the endless sickle *b*, sprocket-wheel f^2, shaft *f* and gear-wheel f^3, and gear-wheel *h* and shaft *h'*, substantially as and for the purposes set forth.

2. The combination, with the sickles *a* and *b*, of plate *e'*, supported on block *e* and extended rearward therefrom between the said sickles, substantially as shown and described.

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

DAN GUPTILL.

Witnesses:
J. W. RANSTEAD,
EZRA RUE.