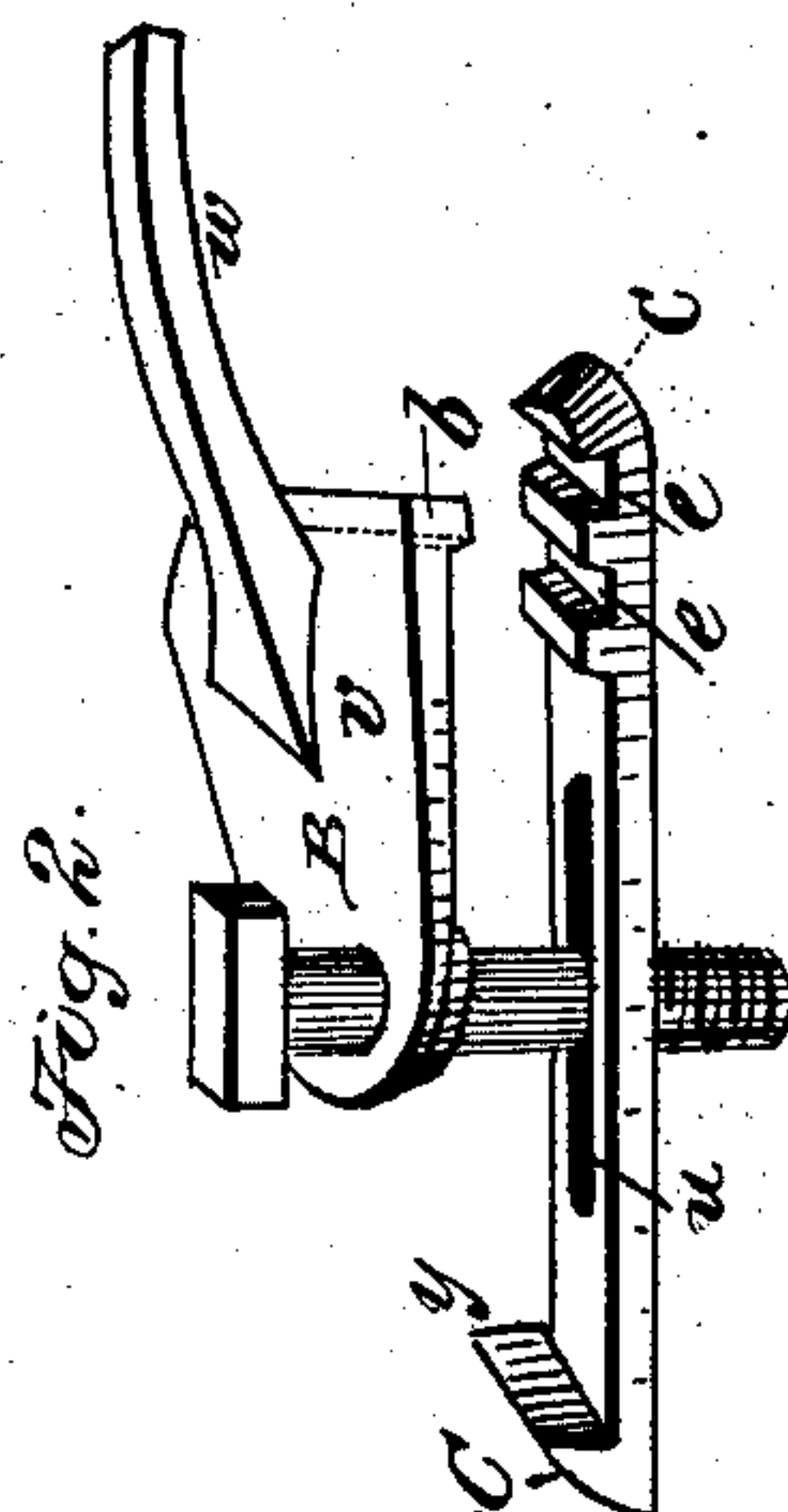
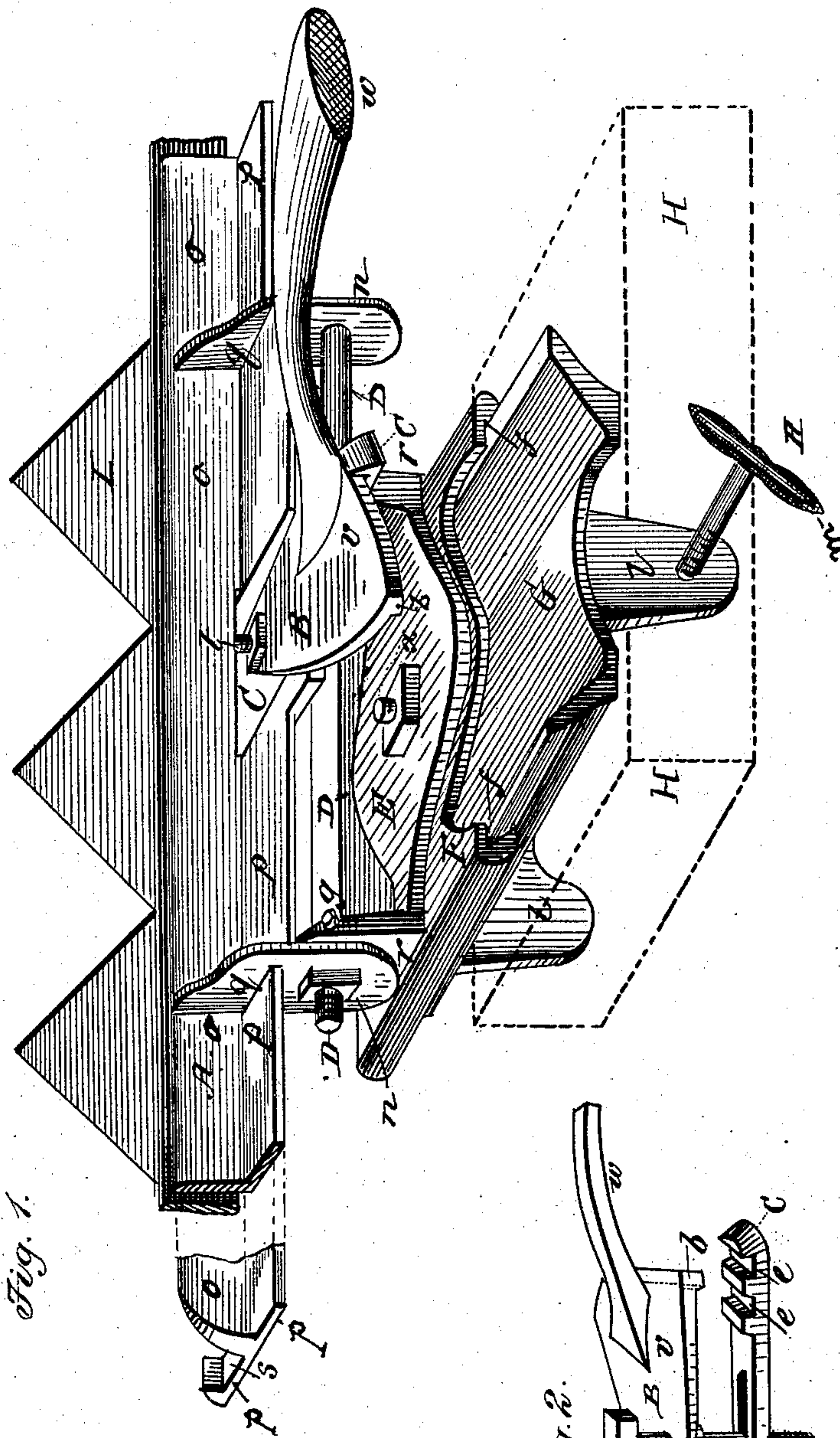


(No Model.)

G. M. BROWN.
Sickle Grinder.

No. 238,844.

Patented March 15, 1881.



Witnesses
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A. H. Krause

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UNITED STATES PATENT OFFICE.

GEORGE M. BROWN, OF DIXON, ILLINOIS, ASSIGNOR OF ONE-HALF TO
VIRGINIA H. BROWN, OF SAME PLACE.

SICKLE-GRINDER.

SPECIFICATION forming part of Letters Patent No. 238,844, dated March 15, 1881.

Application filed August 14, 1880. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. BROWN, a citizen of the United States, residing at Dixon, in the county of Lee and State of Illinois, have
5 invented certain new and useful Improvements in Sickle-Grinders; 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
10 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.

My invention has reference to improvements
15 in sickle-grinders; and it consists, essentially, in novel devices for adjusting and holding the sickle to the grindstone.

In the drawings, Figure 1 is a rear view of a machine embodying my invention, and showing
20 a part of the sickle as held by it for grinding. Fig. 2 is a detached view of the gripe C and clamp B.

The sickles referred to are those of reapers and mowers usually constructed with serrated
25 beveled edges, which require, in the process of grinding, to be held at different angles.

In Fig. 1 the dotted base H represents the cross-beam of the frame of the grindstone.

G is a plate having the lugs *l l*, which clasp
30 between them the base H, and by means of the hand-screw *m* the plate G is rigidly held on such base. The lateral edges of the plate G are beveled and fitted, respectively, in the grooves *f* of the plate F, by means of which
35 the plate F, with its superincumbent machinery, can be moved at will to and from the grindstone, or be entirely detached.

E is a plate placed upon and attached to the plate F by means of the nut and bolt *x*.
40 The plate E is provided at each end with the upwardly-extending flanges *r r*, through which and corresponding downward-extending lugs *n n* on the bench A passes the rod D, secured by a thread and nut.

A is a bench for the reception of the sickle,
45 and consists of the back *o*, the plate *p*, and braces *q*. The plate *p* extends in front of the back *o*, and serves as a seat for the sickle I. At each end of the bench A is provided the
50 recess *s*, to receive and assist in holding the sickle I. One of such ends is shown on the

left of Fig. 1, connected to such figure, and its relative position shown by dotted lines.

C is a gripe having at its front end the upward-extending flange *y*, to clasp the front
55 side of the sickle I. It extends backward under the back *o* in a groove or ways in the upper side of the plate *p*, and is held in place by the screw-bolt *t*, which passes through the slot *u* in such gripe and a corresponding hole
60 in the plate *p* of the bench A.

B is a clamp eccentrically fulcrumed on the bolt *t* above the gripe C, and consists of the base *v* and handle *w*, and on the lower face of the base *v* and at its rear end is diagonally
65 located the inwardly-extending flange *b*. The flange *b* is fitted to engage any one of the recesses *e e* on the upper surface of the rear end of the gripe C.

The operation of my invention is as follows:
70 The machine is fastened, by means of the lugs *l l* of the plate G and the hand-screw *m*, to the beam H of the grindstone-frame. The sickle I is then placed on the bench A, in the recesses *s*, and on the front end of the gripe C,
75 and against the front side of the back *o*, the clamp B being thrown to the right. The flange *b* is then laterally entered into the end of one of the recesses *e* of the gripe C, and by reason of the right-hand end of the diagonal flange *b*
80 being farther from the plate A the leftward movement of the clamp B tends to draw the gripe C backward, the latter moving in its ways in *p*, the slot *u* allowing it to move on the bolt *t*. By this means the flange *y* of the gripe
85 C is forced against the sickle and holds the latter firmly against the front side of the back *o*, in which position the sickle can be readily pressed against the grindstone by moving the plate F to any desired position in the grooves
90 *f*. The bench A can be oscillated forward or backward on the rod D to give the sickle such positions that its bevels may conform to the face of the grindstone.

In one of the flanges *r* is placed the set-
95 screw *g*, which prevents any lateral slipping on the rod D, and by withdrawing the screw *g* and slipping the rod D in the flanges *r* the plate A and sickle I can be moved laterally, as desired.

By releasing the nut-bolt *x* the plate E can
100 be rotated on the plate F to adjust any bevel

of the sickle-sections to the face of the grind-
stone. Sickle-sections differ in the angle of
their bevels, and grindstones differ in the arc
and contour of their grinding-surfaces, and it
5 is therefore necessary to have adjustability in
all of the directions named. When the side of
one section is finished the clamp B is released,
and the sickle moved laterally the distance of
one section and fastened as before.

10 What I claim as my invention, and desire to
secure by Letters Patent of the United States,
is—

1. In combination with the beam H, the

plates E, F, and G, the bench A, gripe C, and
clamp B, arranged and constructed substan- 15
tially as and for the purpose described.

2. In a sickle-grinder, the bench A, in com-
bination with the gripe C and clamp B, sub-
stantially as shown, and for the purpose men-
tioned. 20

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

GEORGE M. BROWN.

Witnesses:

B. G. OSBORN,
CYRUS KEHR.