

No. 769,897.

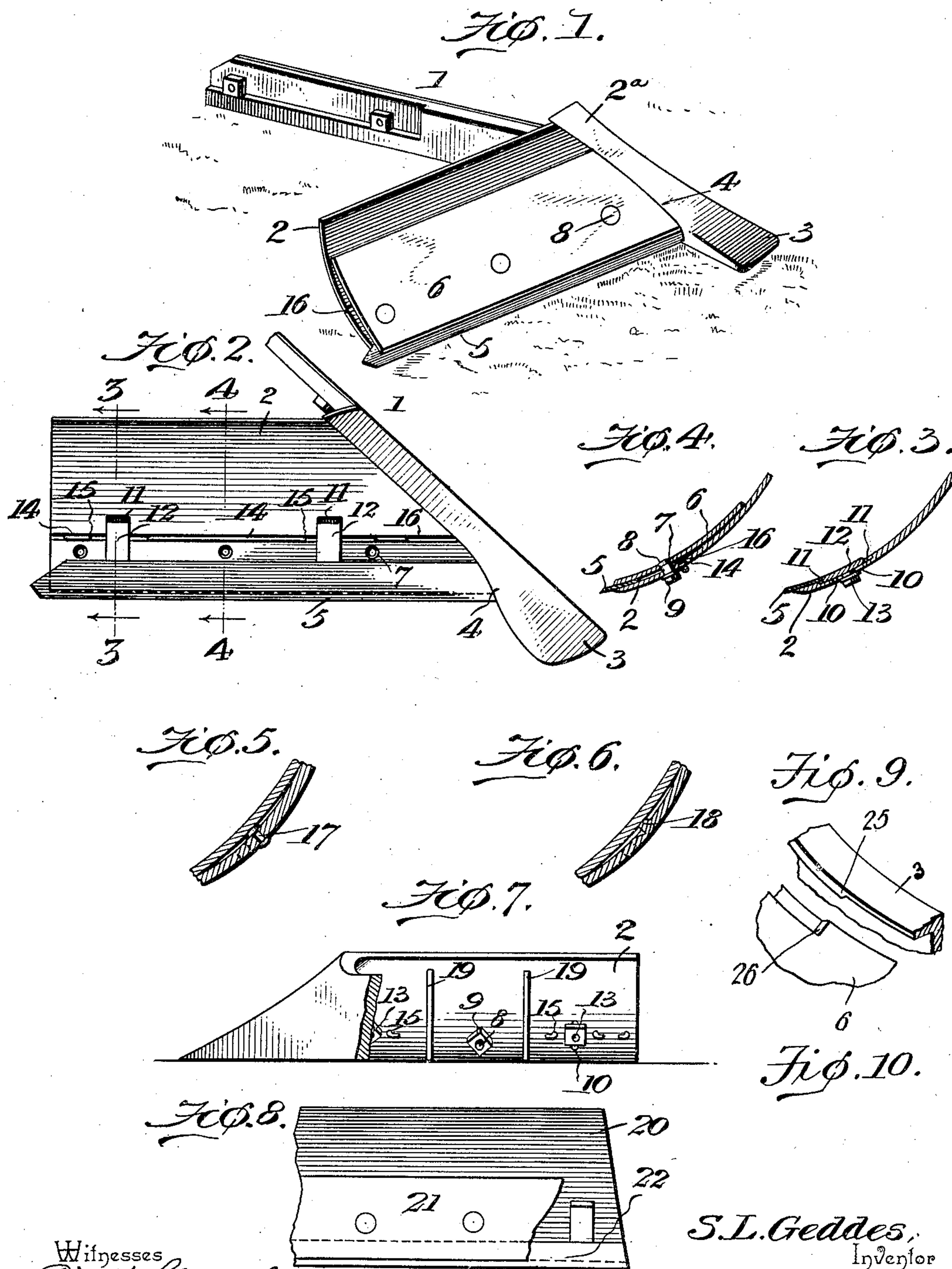
PATENTED SEPT. 13, 1904.

S. L. GEDDES.

PLOW.

APPLICATION FILED JULY 31, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

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PLOW.

SPECIFICATION forming part of Letters Patent No. 769,897, dated September 13, 1904.

Application filed July 31, 1903. Serial No. 167,791. (No model.)

To all whom it may concern:

Be it known that I, SIMPSON L. GEDDES, a citizen of the United States, residing at Wellington, in the county of Sumner and State of Kansas, have invented a new and useful Plow, of which the following is a specification.

This invention relates to plows and implements of a similar character—such as cultivators, subsoilers, blades for road-scrapers, and other earth-engaging devices—which by reason of the use to which they are subjected are required to be provided with sharp cutting edges.

My invention may in a sense be described as an improvement upon the device for which Letters Patent of the United States No. 728,445 were issued to E. P. Currey on the 19th day of May, 1903; but I desire it to be distinctly understood that the adaptation of my invention is more far reaching in its effects, inasmuch as the invention as described is intended to be applied not to turning-plows only, but also to listers, cotton-plows, and a great variety of species of plows and similar earth-engaging devices, as hereinbefore stated.

In the patent to Currey above referred to is included, among other features, a supporting-plate and a wear-plate, between which is clamped a cutting-blade which constitutes the cutting edge of the device and which is reversible from end to end, so as to be practically self-sharpening.

By my present invention I improve the supporting-plate by forming upon or attaching to the under side thereof a pair of ribs disposed substantially parallel to each other, so as not to retard the progress of the plow, but the presence of which materially increases the stiffness and rigidity of said supporting-plate, which may consequently be constructed of lighter material than would otherwise be the case.

A further object of my invention is to provide gage means whereby the cutting-blade may be projected below the lower edges of the wear-plate and the supporting-plate just the desired distance and whereby wear upon the said cutting-blade may be compensated for.

A further object of my invention is to provide means whereby when the bolts which

connect the wear-plate with the supporting-plate are tightened all tendency on the part of the lower edge of the wear-plate to be raised or elevated shall be done away with, supporting means being provided above the connecting-bolts, owing to the presence of which the lower edge of the wear-plate shall be forced downwardly to firmly grip and clamp the cutting-blade when the bolts are tightened.

With these and other objects in view my invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings I have illustrated simple and preferred forms of my invention, with the understanding, however, that changes may be made in the size, proportion, and exact manner of assemblage of the various parts without departing from the scope and spirit of the invention and without sacrificing any degree of the efficiency of the same.

In said drawings, Figure 1 is a perspective view of a plow constructed in accordance with the principles of my invention. Fig. 2 is a plan view showing the supporting-plate and cutting-blade, the wear-plate having been removed. Fig. 3 is a sectional view taken on the line 3 3 in Fig. 2. Fig. 4 is a sectional view taken on the line 4 4 in Fig. 2 and showing the wear-plate 6 in position. Figs. 5 and 6 are detail views illustrating modifications. Fig. 7 is a rear view of the supporting-plate detached. Fig. 8 is a plan view showing my invention applied to a blade of a road-scraper, a portion of the wear-plate having been removed. Figs. 9 and 10 are detail views illustrating a modified construction of my invention.

Corresponding parts in the several figures are indicated by similar numerals of reference.

In carrying out my invention I provide a landside 1, having a laterally-extending wing 2, which I term the "supporting-plate." A point 3 is suitably attached to the landside and extends in front of the supporting-plate, said point being provided with an overhanging flange 4, forming a pocket for the reception of the inner edges of the cutting-blade 5 and the

wear-plate 6, the said point, with its over-
hanging flange, being extended, as shown at
2^a in Fig. 1, for some distance above the up-
per edge of the wear-plate, so as to accommo-
date and form a flush joint with the lower
edge of the moldboard, which latter, how-
ever, has not been shown in the drawings,
but which in practice is supported above the
wear-plate, with its lower edge abutting
against the upper edge of said wear-plate.

The supporting-plate and the wear-plate
are provided each with perforations 7 for the
reception of connecting-bolts 8, the nuts of
which, 9, are tightened against the rear or
under side of the supporting-plate, while
the heads of said bolts are countersunk in
the wear-plate. The supporting-plate is
provided with oblong slots 10, adjacent to
which, in the upper side of said supporting-
plate, are formed rectangular recesses 11 to
receive the elongated approximately rectan-
gular heads 12 of bolts 13, which latter are
adjustable in the elongated openings 10. The
lower edges of the bolt-heads 12 form stops
for the upper edge of the cutting-blade 5.
It will be seen that as the latter wears away
the bolts may be gradually adjusted in a down-
ward direction toward the lower edge of the
supporting-plate, thus compelling the cutting
edge of the blade 5 to pass beyond the lower
edges of the supporting and wear plates and to
properly engage the soil.

In Figs. 2 and 4 of the drawings I have
shown the supporting-plate 2 as being pro-
vided on its upper front side with a rib 14,
disposed parallel to the lower edge of said sup-
porting-plate and above the perforations 7 for
the reception of the fastening-bolts. This rib
in the present instance is formed of wire sta-
ples inserted through the suitably-disposed
perforations 15 in the supporting-plate and
are clenched on the under side of the latter, a
groove 16 being provided in the upper side of
the supporting-plate to receive said staples.
This simply illustrates one form of this part of
the invention, and it is resorted to for the pur-
pose of economizing in the manufacture of the
device, inasmuch as it would be difficult to
properly grind the supporting-plate if the rib
were formed directly upon and integral there-
with. The function of this rib is simply to so
support the wear-plate above the bolt-holes 7
that when the connecting-bolts are tightened
there shall be no tendency whatever to raise
the lower edge of the wear-plate, and thus to
form an opening, however small, between said
wear-plate and the subjacent cutting-blade.
In the detail views, Figs. 5 and 6, I have illus-
trated modifications, one of which consists in
providing the supporting-plate with perfora-
tions in which rivets 17 have been secured, the
heads of said rivets projecting sufficiently
above the surface of the supporting-plate to
effect the desired result. This construction is
shown in Fig. 5. In Fig. 6 the supporting-

plate has been upset, as shown at 18, so as to
form projections sufficient for the purposes
described.

In Fig. 7 of the drawings I have illustrated
another improvement in the supporting-plate
of the plow, which consists in providing the
said supporting-plate on its under side with a
pair of approximately parallel narrow seg-
mental ribs, as 19, which are principally and
primarily for the purpose of strengthening
the said supporting-plate and enabling it to
be made of very light material. Said ribs,
however, when the device is in operative po-
sition will enter the soil to some extent, there-
by serving to guide the plow and prevent lat-
eral movement or displacement to either side.

In Fig. 8 of the drawings has been shown
my invention applied to the blade of a road-
scraper, said blade 20 being conventionally of
rhomboidal shape, which enables it to be re-
versed when desired. This blade 20 in this
form of the invention constitutes the support-
ing-plate upon which the wear-plate, here
designated 21, and the cutting-blade, here
designated 22, are secured in precisely the
same manner and by the same means which
have been shown in Figs. 2, 3, and 4 of the
drawings.

In Figs. 9 and 10 I have illustrated another
modification of my invention. In this case
the overhanging flange 4 of the plow-point 3
is provided near its upper end with a shoulder
25, formed upon its under side, and the wear-
plate 6 is provided at its upper inner corner
with a notch or recess 26, engaging and abut-
ting against the said shoulder 25, thus forming
a flush connecting-surface and reinforcing the
moldboard at this point, where it is ordinarily
very apt to become speedily worn. When
this construction is resorted to, the moldboard
when subsequently placed in position is caused
to abut upon the upper edges of the wear-plate
and also of the shouldered portion 25 of the
flange 4.

It is obvious that the principles of my in-
vention as herein shown and specified are ca-
pable of being applied not only to plows and
to road-scrapers, but to divers forms of plows
and other allied implements, of which, how-
ever, it has been deemed unnecessary to fur-
nish further examples in the drawings accom-
panying this specification.

This device is simple in construction, easily
operated, and effective in operation.

Having thus described my invention, I
claim—

1. In a device of the class described, a sup-
porting-plate, a wear-plate, connecting-bolts,
and stops interposed between said supporting
and wear plates, said stops comprising bolts
having rectangular heads adjustable in rec-
tangular recesses in the supporting-plate.

2. In a device of the class described, a sup-
porting-plate, a wear-plate, connecting-bolts,
adjustable stop-bolts and projecting wear-

plate-supporting means upon the upper side of the supporting-plate above the bolt-holes.

3. In a device of the class described, a supporting-plate having a groove parallel to its lower edge, a wear-plate, connecting-bolts, and means placed in the groove of the supporting-plate to prevent it from contact with the wear-plate at this point.

4. In a device of the class described, a supporting-plate having a groove parallel to its lower edge and perforations in alinement with said groove, a wear-plate, connecting-bolts, and a wire staple engaging the perforations in the groove of the supporting-plate and clenched on the under side of the latter.

5. In a device of the class described, a supporting-plate having elongated slots and provided in its upper face with recesses adjacent to said slots, bolts adjustable in said slots and having elongated heads, a wear-plate, bolts connecting the latter with the supporting-plate, and a cutting-blade clamped between the lower edges of the supporting and wear plates and abutting at its upper edge against the lower edges of the heads of the adjustable bolts.

6. In a device of the class described, a sup-

porting-plate, a wear-plate, connecting-bolts, stops disposed between the supporting and wear plates, said stops comprising bolts movable in slots and having rectangular heads movable in rectangular recesses in the supporting-plate, a cutting-blade clamped between the lower edges of said plates and engaging the lower edges of the stops, and supporting means for the upper edge of the wear-plate, said supporting means being disposed to elevate the upper edge of said wear-plate.

7. In a device of the class described, a supporting-plate, a point having an overhanging flange, a shoulder upon the under side of said flange near the upper end of the latter, and a wear-plate extending under the overhanging flange of the point and provided with a notch engaging the shoulder upon the under side of the flange of said point.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

SIMPSON L. GEDDES.

Witnesses:

CLARA BAUMAN,

W. W. SCHWINN.