

(No Model.)

L. S. FLATAU.
SULKY PLOW.

No. 482,943.

Patented Sept. 20, 1892.

Fig. 1.

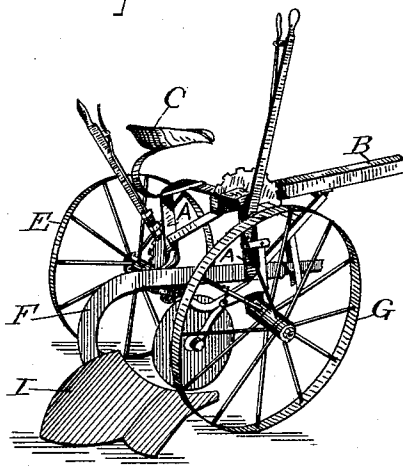


Fig. 2.

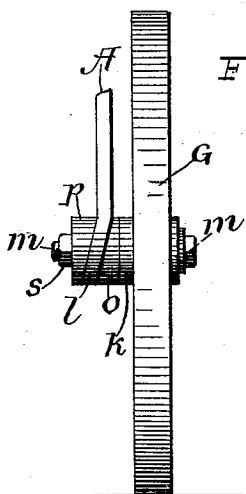
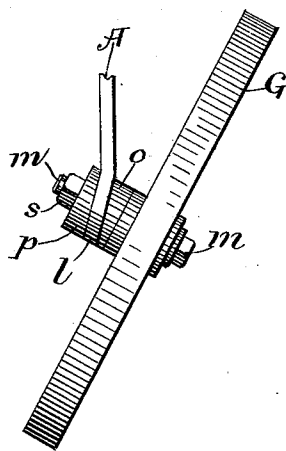


Fig. 3.



ATTEST:

J. H. Hurdle
M. E. Lytton.

INVENTOR:

Louis S. Flatau

By

J. N. M. Suture
Attorney

UNITED STATES PATENT OFFICE.

LOUIS S. FLATAU, OF PITTSBURG, TEXAS, ASSIGNOR TO B. F. AVERY & SONS,
OF LOUISVILLE, KENTUCKY.

SULKY-PLOW.

SPECIFICATION forming part of Letters Patent No. 482,943, dated September 20, 1892.

Application filed June 22, 1892. Serial No. 437,560. (No model.)

To all whom it may concern:

Be it known that I, LOUIS S. FLATAU, of
Pittsburg, in the county of Camp and State of
Texas, have invented certain new and useful
5 Improvements in Sulky-Plows; and I do here-
by declare that the following is a full, clear,
and exact description of the same, reference
being had to the accompanying drawings,
forming part of this specification.
10 As is well understood by those familiar with
the manufacture and use of sulky-plows, it is
common and necessary to build the sulky or
carriage on which the driver of the team
rides and from the frame of which the plow
15 (of one or another species) is suspended or
depends so that the wheels can be set and
used either in nearly or quite vertical planes—
i. e., with their axes horizontal—after the
fashion of all carriage or cart wheels, or with
20 one wheel (that one which has to run or travel
in the furrow) “canted” or set at a very con-
siderable angle or degree of obliquity, so that
that portion of the wheel’s rim which rests
on the ground does so at a point under that
25 side of the sulky-frame to which said canted
wheel is attached. In sulky-plows heretofore
thus made with one wheel to cant, the means
by which the canting of the wheel has been
rendered possible have been such as to in-
30 volve a considerable weight of metal and a
corresponding expense in the manufacture of
the implements, besides having been quite
complicated in construction, and hence not
always easy of manipulation or management
35 by the ordinary farm-hand, who is usually
unskilled in mechanics. I propose to pro-
vide for use a cant-wheel sulky-plow (or plow-
carriage) which, while it shall be exceedingly
light, efficient, and durable with reference to
40 the wheel-canting devices of the carriage,
shall have these devices so very simple in con-
struction and mode of operation that the
farmer most unskilled in handling tools or
performing any machine-work cannot fail to
45 readily manage or manipulate the wheel-
canting mechanism or devices of my improved
carriage.

To these main ends and objects my present
invention may be said to consist, essentially,
50 in the novel construction of wheel-canting de-
vice for sulky-plows, which will be found here-

inafter fully described, and that will be found
most particularly pointed out in the claim of
this specification.

To enable those skilled in the art of mak- 55
ing and familiar with the use of sulky-plows
to understand and practice my invention, I
will now proceed to more fully describe the
same, referring by letters to the accompany-
ing drawings, which form part of this speci- 60
fication, and in which I have shown my im-
provement carried into effect in precisely that
form of machine in which I have so far prac-
ticed it, though more or less modification may
be made without departing from the princi- 65
ple of construction and mode of operation pe-
culiar to my improved canting device.

In the drawings, Figure 1 is a perspective
view of an approved form of sulky-plow known
in the market as “Avery’s Simple Sulky or 70
Universal Plow Carriage,” having my im-
provement embodied therein. Fig. 2 is a par-
tial back view of the same with the wheels
set straight. Fig. 3 is a view similar to Fig.
2, but with the furrow-wheel canted. 75.

In the several figures the same part will be
found always designated by the same letter
of reference.

A is the frame, B the tongue or pole, C the
driver’s seat, and E G the two wheels, of a 80
sulky-plow carriage of the type alluded to
provided with all the usual devices or details
of construction, which need not be herein par-
ticularized, while F is the beam, and I the
mold-board, of an ordinary plow attached in 85
a well-known manner to the saddle, with which
the lower bail-like portion of the sulky-frame
is provided.

G is the furrow-wheel, that is adapted to be
canted or set inclined underward of the car- 90
riage at the lowermost or contacting portion
of its periphery.

To render the wheel capable of being set to
run in either a vertical plane, as seen at Fig.
2, or in a canted condition or oblique plane, 95
as shown at Fig. 3, I construct the carriage
in the following manner: The vertical portion
or leg of the frame A at one side of the latter
has its lower end formed or arranged at an
angle from the perpendicular, as seen at 1, 100
said inwardly-inclined depending portion 1
being of course formed with an oblong aper-

ture, through which passes the axle or shaft *m*, on which is mounted the hub *k* of the wheel *G*, and at each side of the inclined device *l* is arranged on the axle *m* a collar or washer-like device, such as shown at *o* and *p*, each of which is triangular in shape in vertical central cross-section. The outer wedge-shaped washer *o* is confined between the inclined device *l* on one side and a shoulder of the wheel-axle *m* on the other, while the inner collar *p* fits and bears at its outer surface against the inclined device *l* and is confined between it and a nut *s*, which is applied to the inner threaded end of the wheel-axle.

In the use or operation of my improved machine when the axle *m* and its accompanying collars or washers *o p* are all adjusted and securely clamped or fastened together by means of nut *s* in the positions shown in Fig. 2, the furrow-wheel *G* is set and works like the other wheel.

Whenever it may be desired to cant the wheel, so as to have it run in the furrow after the fashion illustrated at Fig. 3, it is only necessary to loosen the nut *s*, turn the washers *o p* around on the axle a half-turn, and then, with the axle changed to the position in which it is shown at Fig. 3, again tighten up the nut *s*.

It will be observed that by reason of the peculiar angling or inclined shape of the part *l* of the frame at the furrow side of the carriage and the combination therewith, and with the wheel-axle *m* of the wedge-shaped washers *o p* arranged and operating as specified, I am enabled, with the use simply of the supplemental devices *o p* (which weigh only a few ounces) to render the carriage capable of use with its furrow-wheel *G*, set either as seen at Fig. 2 or as shown at Fig. 3; and it will be seen that inasmuch as the shifting or adjusting of the machine from one to the other

of the two necessary conditions requires only the manipulation hereinbefore explained, and involves only the use of a wrench and the turning loose and tight again of the nut *s*, the farmer least skilled in the use of tools and having no experience as a mechanic can hardly fail to properly shift or adjust the wheel *G* from one to the other of its two working positions, as the character of work to be done or the kind of plow being used and the nature of the land may render necessary or desirable. Of course the precise forms as well as the proportions of parts and the minor details may be varied more or less without changing the novel principle of construction and mode of operation of the carriage shown and described, and hence without departing from the spirit of my invention, the gist of which rests in the use together of the inclined device *l*, tapering pieces *o p*, and the wheel-axle, substantially as I have explained.

Having now so fully explained my novel construction of plow that those skilled in the art can easily understand and practice my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a sulky-plow carriage, the combination, with the frame of the carriage and the axle of the furrow-wheel, of an inclined perforated portion or device *l*, the washers or collar-like devices arranged on either side of the part *l* and penetrated by the axle of the wheel, and means for clamping together rigidly the combined parts, all substantially as and for the purposes set forth.

In witness whereof I have hereunto set my hand this 3d day of May, 1892.

LOUIS S. FLATAU.

In presence of—

J. E. M. FAUL,
JNO. S. FLETCHER.