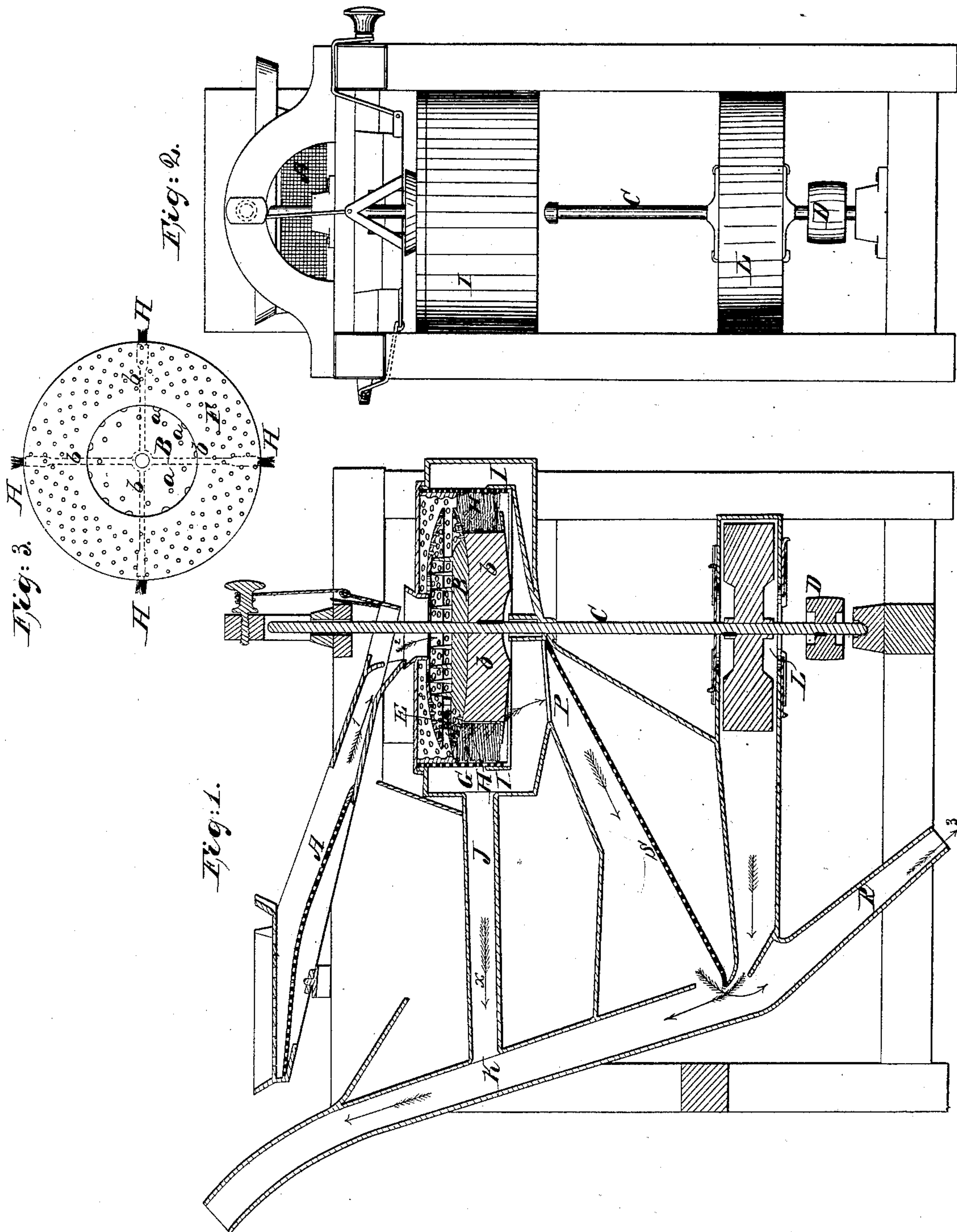


GOSHON & BOWERS.
Grain Cleaning Machinery.

No. 20.422.

Patented June 1, 1858.



UNITED STATES PATENT OFFICE.

J. G. GOSHON, OF MERCERSBURG, AND W. BOWERS, OF CHAMBERSBURG, PENNSYLVANIA.

MACHINE FOR CLEANING GRAIN.

Specification of Letters Patent No. 20,422, dated June 1, 1858.

To all whom it may concern:

Be it known that we, J. G. GOSHON, of
Mercersburg, in the county of Franklin and
State of Pennsylvania, and W. BOWERS, of
5 Chambersburg, in the county of Franklin
and State of Pennsylvania, have invented a
new and useful Improvement in Grain-
Cleaning Machinery; and we do hereby de-
clare that the following is a full, clear, and
10 exact description of the construction and op-
eration of the same, reference being had to
the annexed drawing, forming part of this
specification, in which—

Figure 1 is a vertical longitudinal section
15 of the machine. Fig. 2 is an end elevation
of same. Fig. 3 is a top view of scourer.

Similar characters of reference in the sev-
eral figures denote the same part.

The nature of our invention consists in a
20 peculiar construction of scourer hereinafter
to be set forth.

In the drawing A is the screen which re-
ceives the grain in the condition in which it
comes from the sinks, and which leads to
25 the scourer as shown by black arrows 1 and
2. The scourer consists of a disk B, studded
with upright spikes or teeth *a a*, and mount-
ed upon a vertical shaft C, driven by pulley
D. Around the edge of this disk, and se-
30 cured to it, is a concave, roughened rim E,
and above the teeth and rim, is a cap piece
F, concave on its under side, and roughened,
as shown in Fig. 1, there being an opening
through the middle of this cap for the pas-
35 sage of the grain to the disk. The construc-
tion of this scourer is shown fully in Fig. 1;
the rim and cap nearing each other at their
edges and leaving a narrow outlet for the
grain.

40 Under the disk, are four arms *b*, termi-
nated by brushes H, reaching to the casing
G, which is of wire gauze and opens into a
chamber I, concentric with the beater cham-
ber. The casing of this latter chamber,
45 above the brushes, has a roughened lining *c*,
against which the grain is dashed as it
passes from between rim E and cap F.

The chamber I communicates by a chan-
nel J, with the trunk K, through which a
50 blast is forced from the fan chamber L, as
indicated by red arrows. A current is thus

created through channel J, as indicated by
red arrow *x*, by suction from the trunk.

Chamber I is open at bottom, and commu-
nicates with channel P, leading to the blast 55
trunk K. The bottom of this channel con-
sists of a screen S, by which a separation
is effected before the grain enters the blast
trunk.

The grain falls upon the disk B, and re- 60
ceives the usual scouring due to upright beat-
ers *a*. It is then concentrated between the
concave surfaces of rim E and cap F, and
receives a smart scouring from their rough-
ened interiors while passing to the narrow 65
exit passage at their edges. As the grain
leaves this portion of the machine it is
dashed against the roughened lining *c*, and
then falls into position to be rubbed by the
brushes against the wire gauze casing G. 70
This thoroughly removes the impurities
loosened by the previous operation. The
dust being carried off through passage J,
while the grain and larger impurities fall
upon screen S. A further separation takes 75
place as the grain is passing to the blast
trunk K, by the falling of small and heavy
impurities through this screen. As the grain
passes into the trunk, the light impurities
are carried off by the blast as shown by red 80
arrows, and the cleaned grain falls from
spout R, as shown by black arrow 3.

We make no claim to the employment of
a disk scourer with upright beaters sepa-
rately considered, as such is not new. But 85

What we do claim and desire to secure by
Letters Patent, is—

The scourer, composed of the spike stud-
ded disk B, concave rim E, and concave cap
piece F as described, in combination with the 90
brushes H and the casing inclosing the said
parts, arranged and operating substantially
as, and for the purposes set forth.

In testimony whereof, we have hereunto
signed our names before two subscribing 95
witnesses.

J. G. GOSHON.
W. BOWERS.

Witnesses:

G. PATTEN,
JOHN S. HOLLINGSHEAD.