

(No Model.)

W. CORKILL.
AUTOMATIC SANDING BOX.

No. 289,984.

Patented Dec. 11, 1883.

Fig. 1.

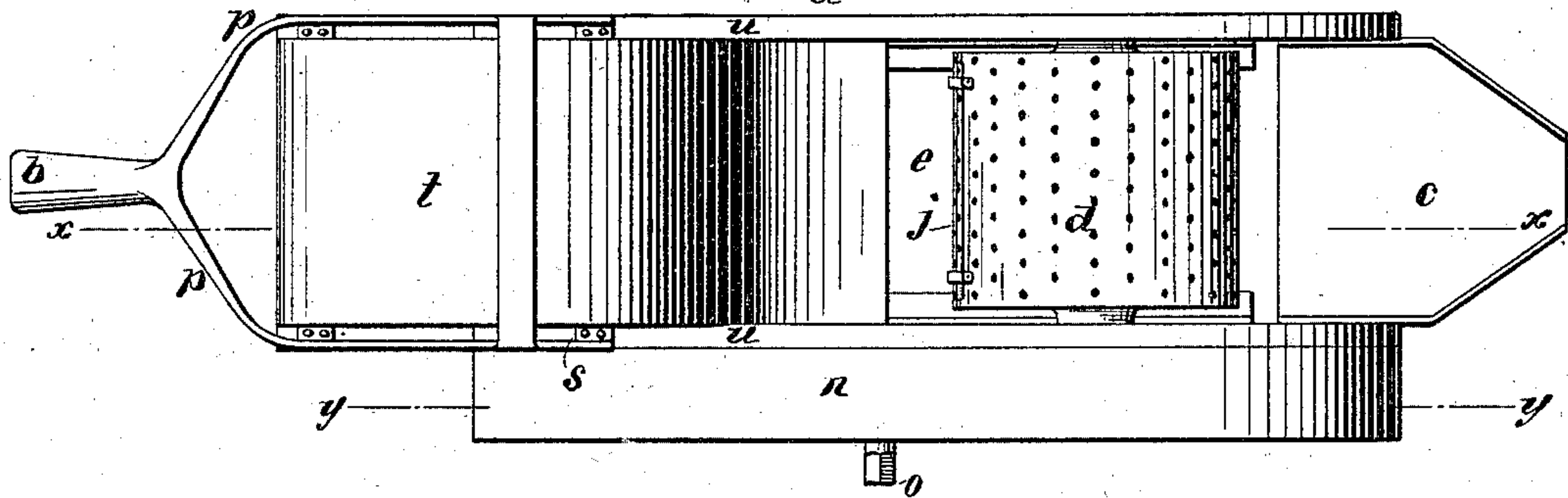


Fig. 2.

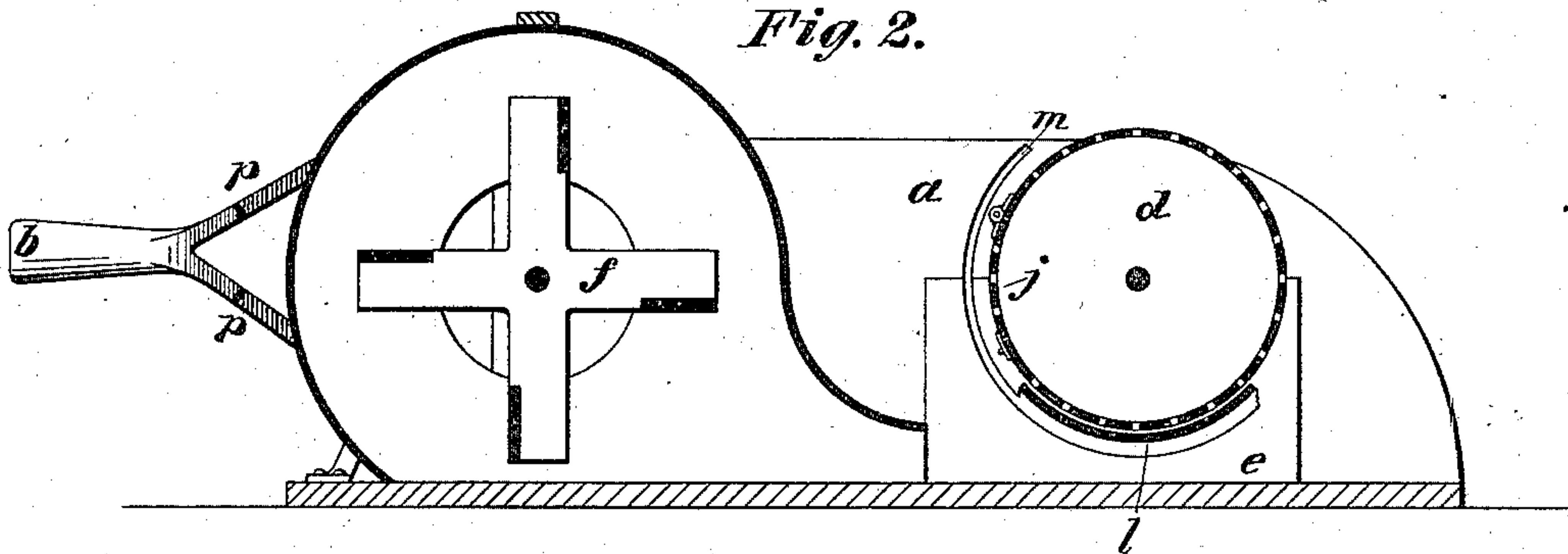


Fig. 3.

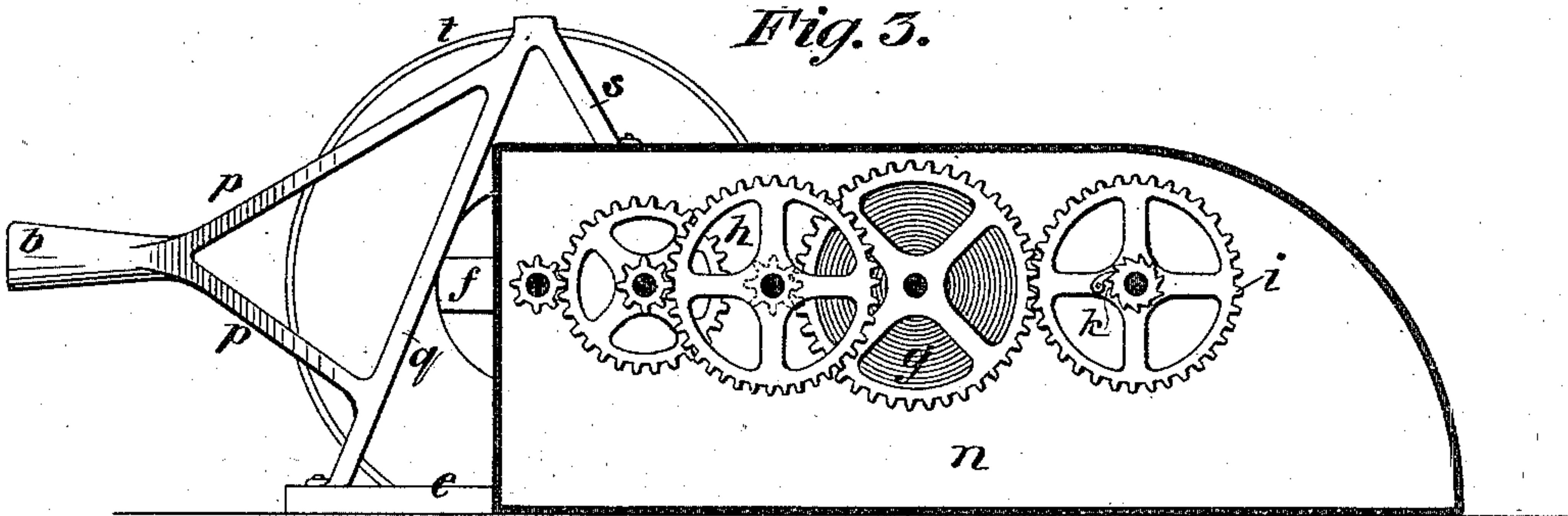
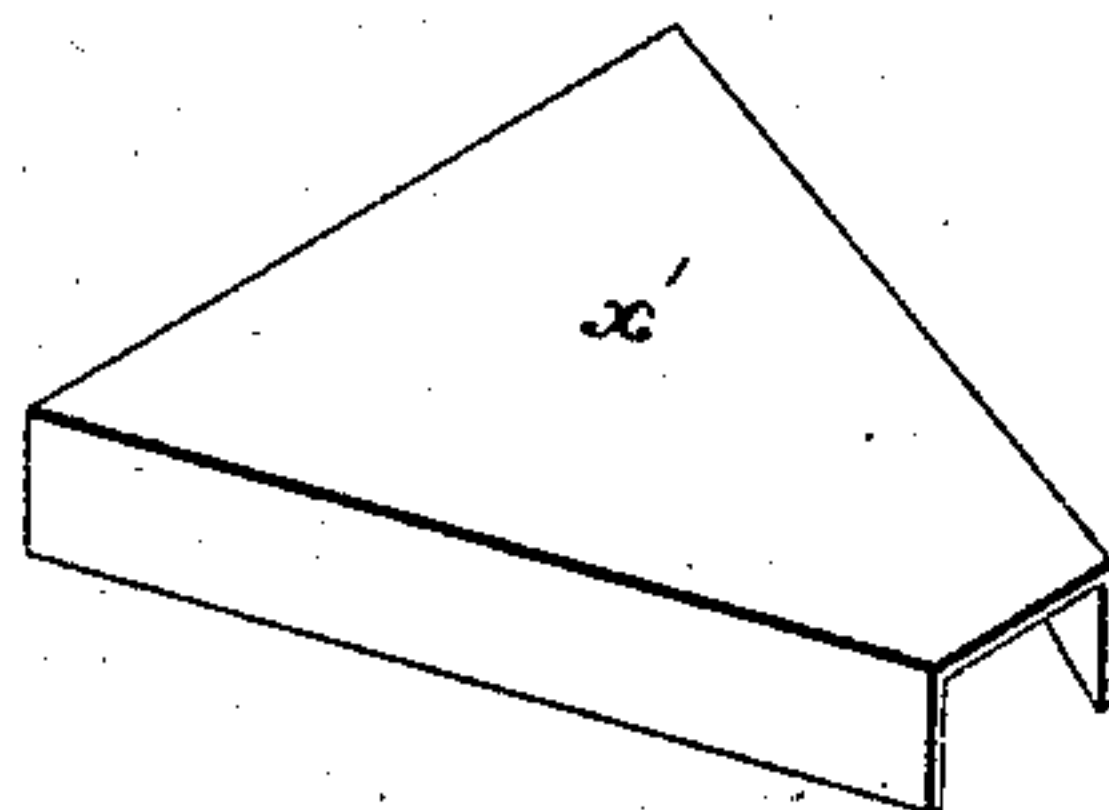


Fig. 4.



WITNESSES:

John H. Deemer
C. Bedgwick

INVENTOR:

W. Corkill
BY *Mum & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM CORKILL, OF PITTSFIELD, MASSACHUSETTS.

AUTOMATIC SANDING-BOX.

SPECIFICATION forming part of Letters Patent No. 289,984, dated December 11, 1883.

Application filed March 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM CORKILL, of
Pittsfield, in the county of Berkshire and State
of Massachusetts, have invented a new and
5 Improved Automatic Sanding-Box, of which
the following is a full, clear, and exact descrip-
tion.

My invention consists of a contrivance of de-
vices in a small box, to be held up in the hand
10 for blowing sand in a regular and uniform jet
upon freshly-painted work, in lieu of the com-
mon pepper-box device, the said contrivance
consisting of a revolving perforated sand-feed-
ing cylinder and a fan-blower, with spring-
15 power apparatus for working them to supply
the sand in a steady stream and project it from
a spout at the end of the box, from which the
sand may be discharged with accuracy and in
a more or less concentrated jet, as required,
20 upon the paint in places where it cannot be
thrown by the common contrivance, and so as
to largely economize the sand and materially
lessen the labor of applying it, all as herein-
after fully described.

25 Reference is to be had to the accompanying
drawings, forming part of this specification,
in which similar letters of reference indicate
corresponding parts in all the figures.

Figure 1 is a plan or top view of my im-
30 proved automatic sanding-box. Fig. 2 is a lon-
gitudinal sectional elevation of the machine on
line *x x* of Fig. 1. Fig. 3 is a longitudinal sec-
tional elevation through the spring-power
mechanism on line *y y* of Fig. 1. Fig. 4 is a
35 perspective view of a concentrator to be used
for condensing the jet.

In any suitable light box or case, *a*, of sheet
metal or other approved material, provided
with a handle, *b*, at one end, by which to hold it,
40 and having a spout, *c*, for the discharge of the
sand at the other end, I arrange a hollow per-
forated cylinder, *d*, to receive the sand and de-
liver it on the bottom *e* of the box, in rear of
the spout *c*; and I provide a fan-blower, *f*, to
45 blow the sand out through the spout *c* upon the
work, both the fan and the sand-feeding cylin-
der being geared with a spring-power device,
g, for revolving them, the fan being geared by
a train, *h*, suitably contrived for the requisite
50 high speed for generating a blast of sufficient
power, and the cylinder being geared by the

wheel *i*, which turns it at a moderate speed suit-
able for tumbling the sand, so as to prevent the
perforations from clogging and deliver the
sand in the proper quantity. The cylinder *d* 55
has a door, *j*, in the shell for opening to supply
the sand, and having suitable fastening devices
to secure it when closed; and a ratchet and
pawl, *k*, is provided for connecting the cylinder
for driving, and so that the cylinder may be 60
turned back to set the door uppermost when the
cylinder is being filled, in case it should have
stopped with the door under.

To prevent the sand from falling through
the cylinder when filling it, I have provided a 65
curved stop-gate consisting of plate *l*, and ar-
range it in suitable grooves, *m*, to slide under
the cylinder in close proximity to it and ob-
struct the escape of sand. When the machine
is to be used, the plate is to be shifted up around 70
the cylinder to the top, or thereabout, where it
will rest till required to be shifted under the cyl-
inder again. The cylinder may also be inclosed
at the sides by stationary plates, if desired, to
confine the sand. When it is desired to con- 75
centrate the sand-blast upon a small area, I em-
ploy the device *x'*, (represented in Fig. 4,) con-
sisting of a piece of tin with three sides bent or
shaped to converge upon a narrow orifice, and
being fitted to rest in the spout *c*. 80

I arrange the spring-power mechanism in a
case, *n*, upon one side of the box *a*, in which
it is properly inclosed for protection from sand,
and will have suitable sliding or other doors
for opening it to lubricate the journals when 85
required. The spring is to be wound up by
a key applied to the post *o* of the spring-axle.
The handle is attached by means of branching
arms *p*, which terminate each side of the fan-
case *t* in bars *q s*, connecting with the bottom 90
e and the upper edges, *u*, of the sides of the
box, respectively, and being suitably shaped
for strongly bracing the parts.

I do not limit myself to the particular con-
trivance of the operating mechanism herein 95
shown, for that may be modified at the pleas-
ure of the constructor.

The spout *c* may be taken out in case it is
desired to distribute the jet more widely.

Having thus described my invention, I claim 100
as new and desire to secure by Letters Patent—

1. The combination of a hollow perforated

revolving sand-feeder, *d*, and a fan-blower in a suitable box or case, having means for operating the cylinder and fan for ejecting sand, substantially as described.

5 2. The combination of a hollow perforated revolving sand-feeder, *d*, and a fan-blower in a suitable box or case, provided with spring-power mechanism for operating the fan and the feeding-cylinder, substantially as de-
10 scribed.

3. The combination of the spring-power device *g*, train *h*, and wheel *i* with the hollow perforated cylinder *d* and the fan-blower *f*, all arranged in a box or case, substantially as de-
15 scribed.

4. The combination of the concentrating-spout *c* with the sand-feeding cylinder *d*, fan-blower *f*, and mechanism for operating them, substantially as described.

5. The combination of the concentrator *a'* 20 and spout *c* with the sand-feeding cylinder, fan-blower *f*, and the mechanism for operating the said fan and cylinder, substantially as described.

6. The combination, with the box or case *a*, 25 provided with the grooves *m*, and the perforated cylinder *d*, of the slide *l*, working in the grooves of the box or case, substantially as and for the purpose set forth.

7. The combination, with the box or case *a* 30 *cu*, of the handle *b*, provided with the branches *p p* and bracing-arms *q s*, substantially as herein shown and described.

WILLIAM CORKILL.

Witnesses:

JOHN CORKHILL,
FREDK. T. ASHTON.