(No Model.) 2 Sheets—Sheet 1.

W. F. DESSAU.

PHARMACEUTICAL POWDER DIVIDER.

No. 432,986. Patented July 29, 1890.

Fig. 1.

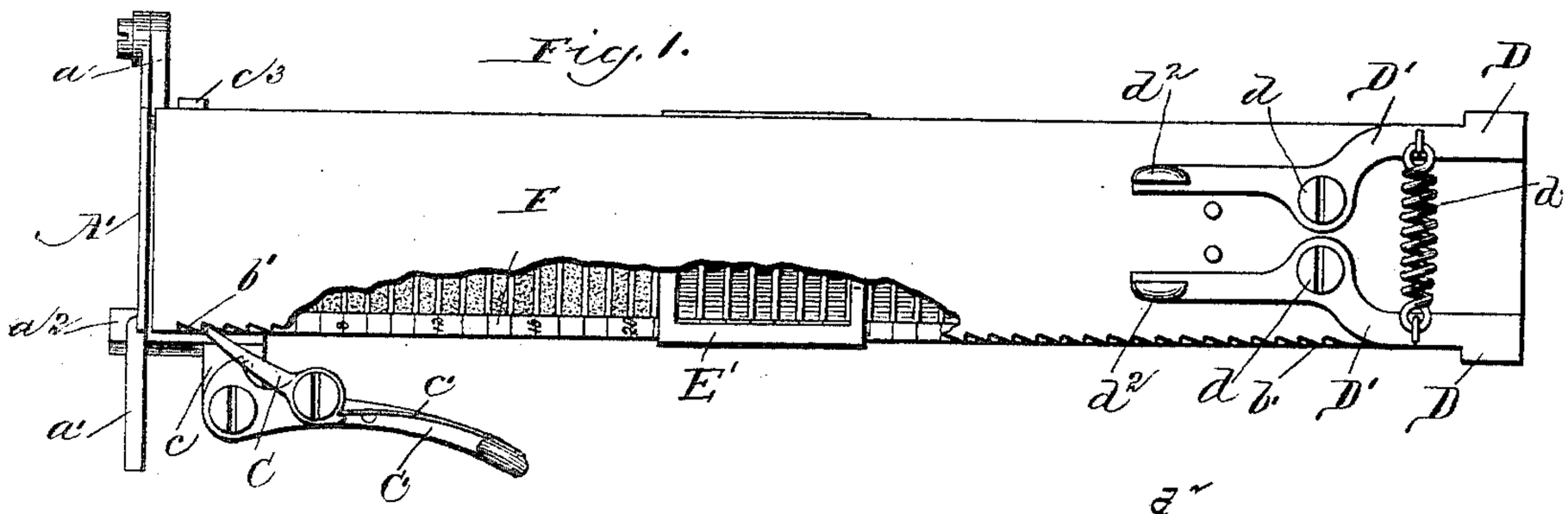


Fig. 2.

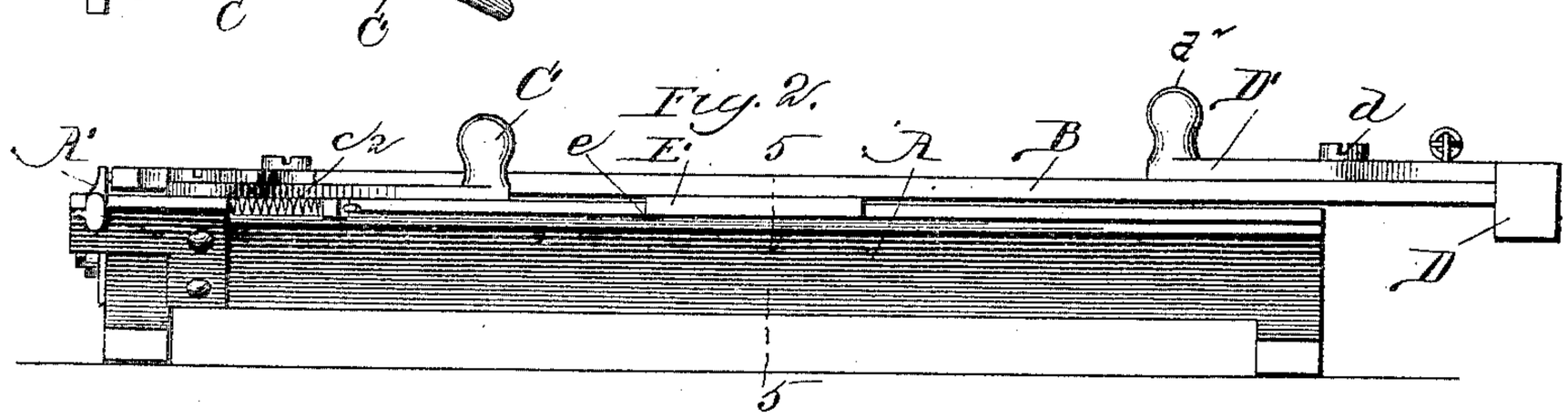


Fig. 3.

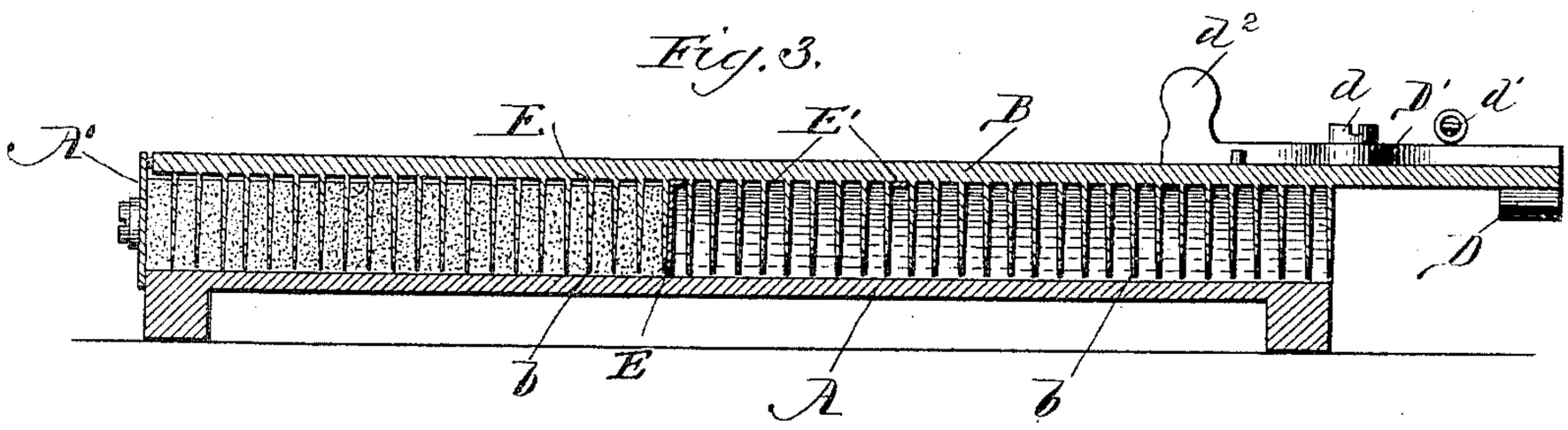


Fig. 4.

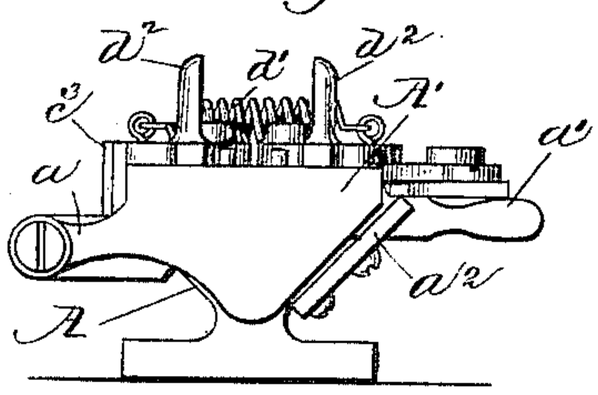


Fig. 5.

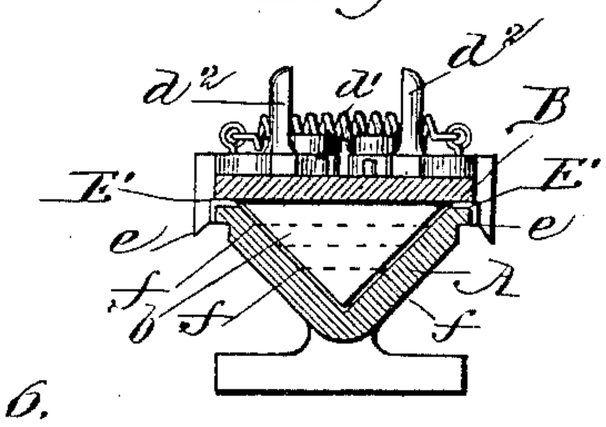
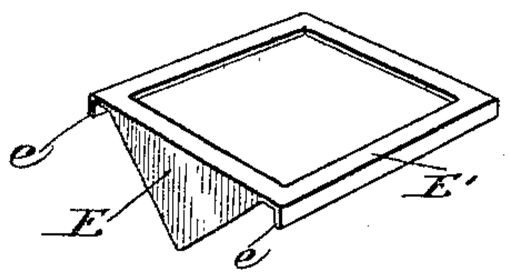


Fig. 6.



Witnesses:
W. Rossiter
Frank Norrak

Inventor:
William F. Dessau
By Jno. A. Whipple
Atty.

(No Model.)

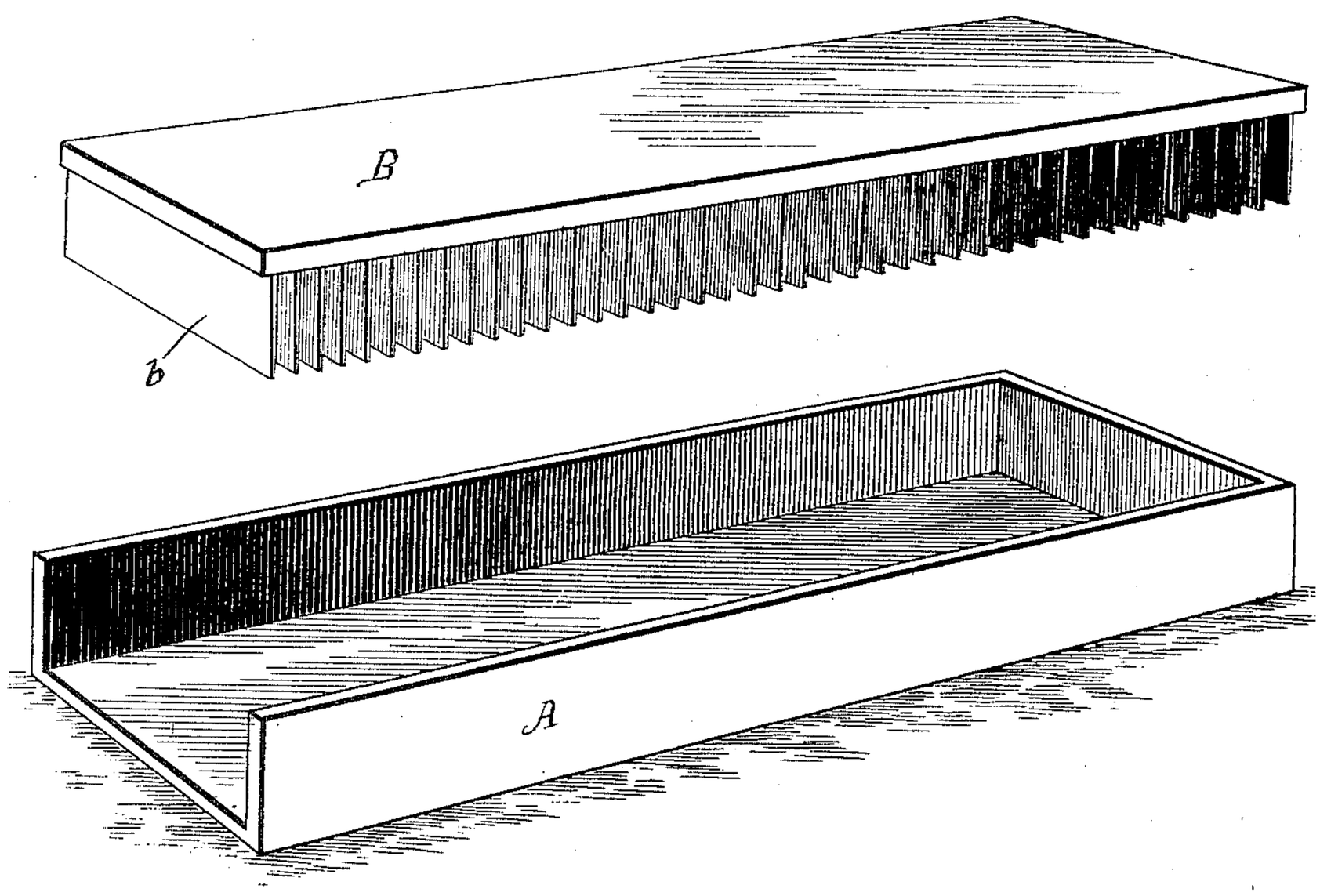
2 Sheets—Sheet 2.

W. F. DESSAU.

PHARMACEUTICAL POWDER DIVIDER.

No. 432,986. Patented July 29, 1890.

Fig. 1.



Witnesses
W. Rossiter.
Frank Norrak.

Inventor
William F. Dessau
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Atty.

UNITED STATES PATENT OFFICE.

WILLIAM F. DESSAU, OF CHICAGO, ILLINOIS.

PHARMACEUTICAL POWDER-DIVIDER.

SPECIFICATION forming part of Letters Patent No. 432,986, dated July 29, 1890.

Application filed August 19, 1889. Serial No. 321,197. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. DESSAU, of the city of Chicago, in the State of Illinois, have invented certain new and useful Improvements in Dividing or Measuring Apparatus, of which the following is a specification.

My invention relates, broadly, to a separating or measuring apparatus for dividing quantities of granulous or triturated substance into equal parcels; and the objects of my improvements are, first, to provide a divider having a series of blades adapted to separate a layer of such material spread on an even surface into equal parcels; second, to provide a receptacle for holding the material in conjunction with the divider, the cavity of the receptacle conforming in cross-section to the shape of the divider-blades, and, third, to provide means for separately discharging the parcels from the receptacle by moving the divider longitudinally in the trough. These objects I have attained by the apparatus constructed as illustrated in the accompanying drawings, in which—

Figure 1 is a top or plan view of an apparatus containing my invention, a portion of the top plate being broken away to show a graduating-scale beneath it. Fig. 2 is a side elevation of said apparatus. Fig. 3 is a longitudinal vertical section of the same, showing the divider-blades in the receptacle. Fig. 4 is an end elevation showing the end to the left of Figs. 1 and 2. Fig. 5 is a transverse vertical section on line 5 5 of Fig. 2, looking toward the right. Fig. 6 is a perspective view of a detail and shows an adjustable or sliding gate for adjusting the length or size of the receptacle relative to the quantity of material to be divided and the number of parcels into which it is to be divided. Fig. 7 is a perspective view showing the divider adapted to an even surface or to a receptacle made rectangular in cross-sections.

The invention consists in the parts and combinations hereinafter described and claimed.

In the drawings, A designates the receptacle, which consists of a trough of uniform dimensions longitudinally and preferably narrowest at the bottom, the best form being V-shaped in cross-section.

The divider consists of a bar or plate B, provided with a series of uniformly-spaced blades *b* of such form as to fit the form of the cross-section of a receptacle or trough-cavity, so as to separate it into distinct compartments between the blades when placed therein, whereby any powdered substance or seggregable mass of material previously placed in the trough can be divided or separated into parcels of uniform size or quantity by pressing or dropping the divider-blades down through the same.

For the purpose of delivering the parcels from the trough I provide a removable gate A′ at one end, which gate is hinged to one side of the trough or to an arm *a* thereof, and has a latch or handle *a′*, which engages a catch a^2, whereby the gate is held against the end of the trough, so as to close the same when desired, and may be turned back or removed out of the way for discharging the parcels, which is accomplished by moving the divider forward toward the open end, so that the parcels will separately fall out as the respective blades pass out at the end of the trough. The plate B, to which the blades are attached, covers the open side of the trough, and by forming a ratchet *b′* along one edge thereof, a spring-pawl C, attached to a spring lever or handle C′, pivoted to an arm or projection *c* of the trough, can be arranged to move the divider by the working of said lever, the notches of the ratchet being so arranged relative to the blades that one or more movements of the lever will effect the discharge of one parcel. The spring which holds the pawl in normal engagement with the ratchet is marked *c′*, and c^2, Fig. 2, designates the spring which keeps said lever normally extended for throwing the pawl into engagement with the back notches of the ratchet after each operation. A lug or stop c^3, operating against the opposite edge of the plate, prevents its being displaced by the lateral force of the pawl in operation.

For the purpose of securing the plate B to the top of the trough I provide a pair of jaws D, connected to levers D′, which are pivoted to the top of said plate at *d*, and are drawn together by a spring *d′* in such manner that said jaws will engage over the edges of the

trough to hold the said plate thereto and permit it to slide thereon. Handles d^2 are provided at the opposite ends of the levers D′, whereby said jaws may be opened to take the said plate off the trough when desired.

For the purpose of adjusting the receptacle to the quantity of material to be divided and to the number of parcels into which it is to be divided, I provide a sliding gate E, which is adapted to fit into the trough-cavity at any point along its length and to be supported therein, the support consisting of a frame E′, attached to said gate and having flanges *e*, adapting it to fit and slide on the top of the trough. I also provide a graduated scale F along one edge of the trough, whereby the setting of said sliding gate can be regulated, and also scale-marks *f* on the side of the trough, whereby the depth of the material to be divided can be varied, thus enabling the size of the parcels to be accurately determined.

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

1. In a powder-divider, and in combination, a trough-cavity of uniform dimensions throughout its length, a removable end-gate adapted to cover one end of said trough-cavity, substantially as shown, and a divider provided with a series of uniformly-spaced blades corresponding in shape with the cross-section of the trough-cavity, as specified.

2. In a powder-divider, and in combination, a trough-cavity of uniform dimensions throughout its length, a divider provided with a series of uniformly-spaced blades shaped to fit the cross-section of the trough-cavity, and a gate also shaped to fit the cross-section of the trough-cavity and connected with a frame fitted to slide on the top of the trough for supporting the gate at any point in the trough, as specified.

3. In a powder-divider, and in combination, the trough-cavity of uniform dimensions, and having a graduated scale along its length, and a sliding gate shaped to fit the trough-cavity in cross-section and attached to a frame fitted to slide on the top of the trough for supporting the gate at any point in the trough, for the purpose specified.

4. In a powder-divider, the trough of uniform dimensions, provided with a graduated scale along its length, and also a graduated scale along its depth, in combination with a sliding gate shaped to fit the trough-cavity in cross-section and adapted to be supported thereon at any point along its length, as specified.

5. In a powder-divider, and in combination, the trough of uniform dimensions, the divider consisting of a bar or plate adapted to fit or slide on the top of the trough, and provided with a series of uniformly-spaced blades shaped to fit the trough in cross-section, a pivoted lever, and pawl-and-ratchet mechanism for moving the divider intermittently along on the trough, with rests at intervals corresponding with the space between the divider-blades, as specified.

6. In a powder-divider, and in combination, the trough of uniform dimensions, the divider-plate carrying uniformly-spaced divider-blades of the construction shown relatively to the trough-cavity, and spring-jaws for holding said dividers in place to slide on the trough, as specified.

WILLIAM F. DESSAU.

Witnesses:
JNO. H. WHIPPLE,
GEO. W. WARVILLE.