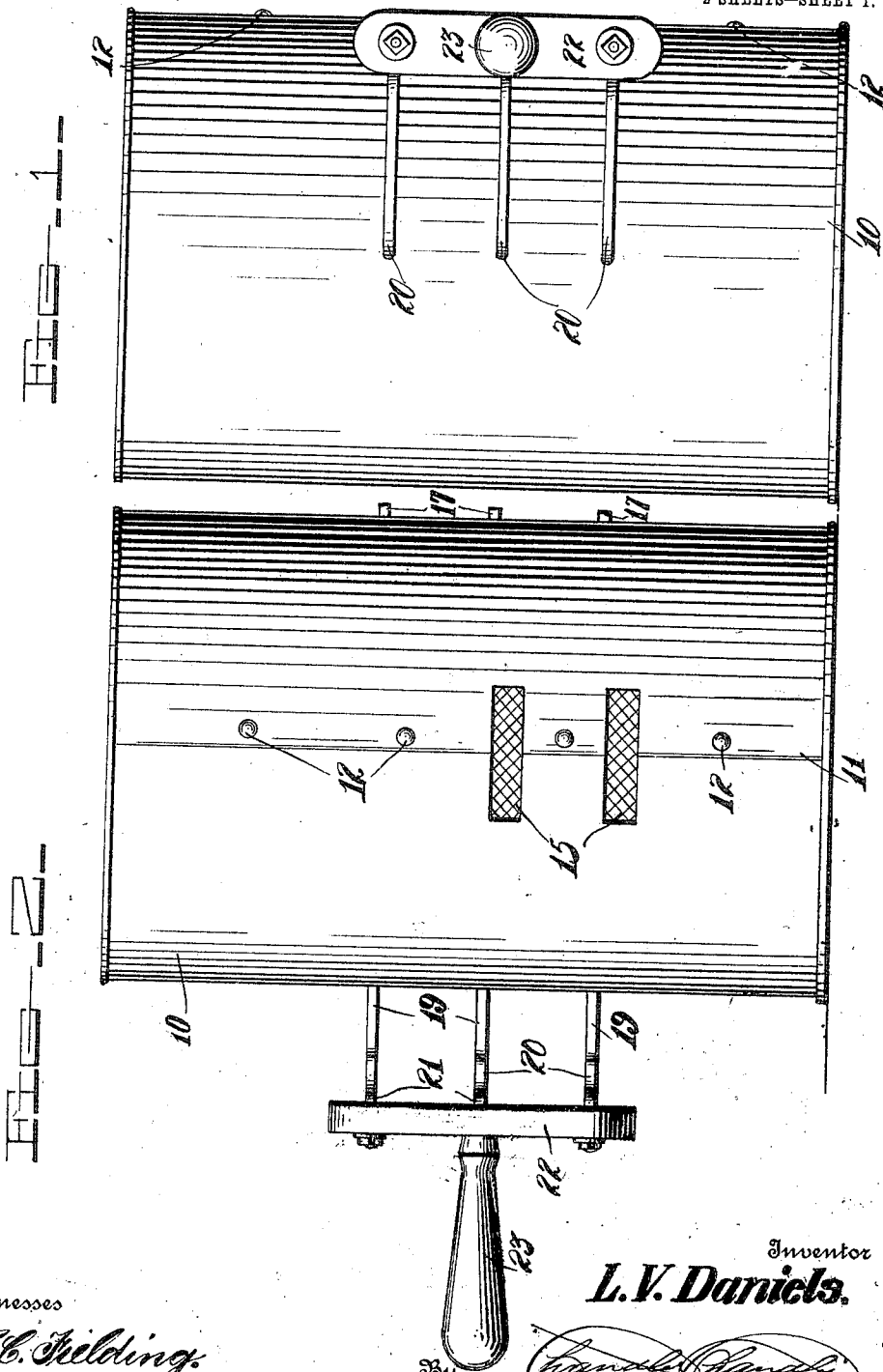


1,036,974.

L. V. DANIELS.
FLOUR SIFTER.
APPLICATION FILED JUNE 1, 1911.

Patented Aug. 27, 1912.

2 SHEETS—SHEET 1.



Witnesses

M. C. Fielding.
J. W. Burch.

Inventor

L. V. Daniels.

Charles Daniels

Attorneys

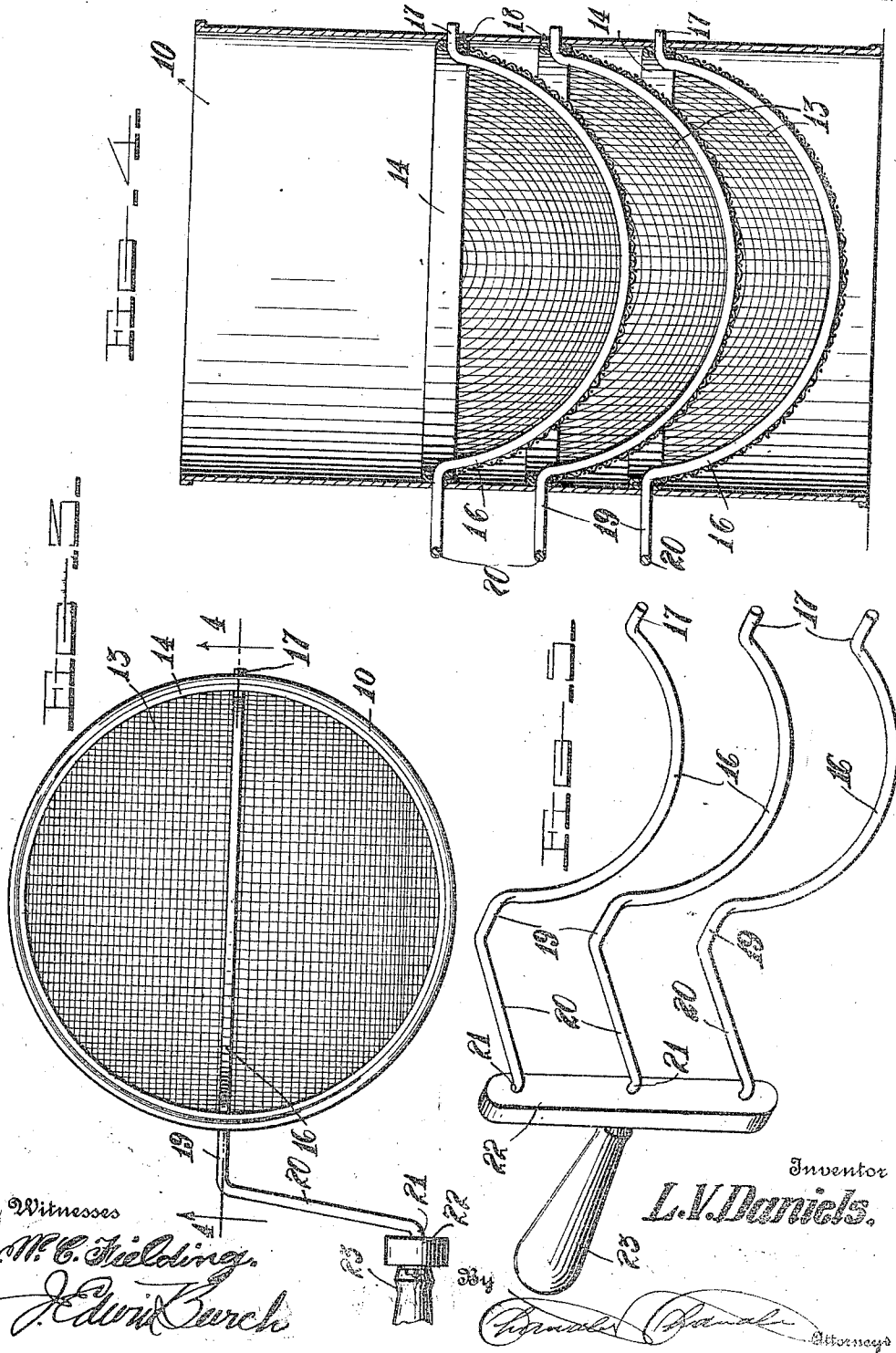
L. V. DANIELS.
FLOUR SIFTER.

APPLICATION FILED JUNE 1, 1911.

Patented Aug. 27, 1912.

2 SHEETS—SHEET 2.

1,036,974.



Witnesses
M. C. Fielding.
J. Edwin Burch

Inventor
L. V. Daniels.

Attorneys

UNITED STATES PATENT OFFICE.

LEANNA V. DANIELS, OF ELKTON, SOUTH DAKOTA.

FLOUR-SIFTER.

1,036,974.

Specification of Letters Patent.

Patented Aug. 27, 1912.

Application filed June 1, 1911. Serial No. 630,606.

To all whom it may concern:

Be it known that I, LEANNA V. DANIELS, a citizen of the United States, residing at Elkton, in the county of Brookings, State of South Dakota, have invented certain new and useful Improvements in Flour-Sifters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to sifters and more especially to an improved sifter for use in sifting flour and the object of the invention is to provide a sifter having a body with a series of superimposed semi-spherical sieves and a plurality of simultaneously actuated agitators movable therein so that a complete and thorough sifting of the flour may be obtained by a single operation or passage of the flour through the sifter.

Another object of the invention is to provide agitators for each of the sieves, said agitators being connected in a novel manner to an operating handle for simultaneous operation with the least possible resistance and furthermore, to provide independent outlets for each sifter whereby the unsifted particles may be readily emptied therefrom.

With these and other objects in view the invention consists of certain other combinations and arrangements of parts as will be hereinafter more fully described and claimed, it being a still further object to provide a device which will not be likely to get out of working order.

In the drawings:—Figure 1 is a front elevation of my improved sifter. Fig. 2 is a side elevation thereof to more particularly disclose the independent outlets for the lowermost sieves whereby the unsifted particles may be readily emptied therefrom. Fig. 3 is a top plan view of the sifter. Fig. 4 is a central longitudinal sectional view taken on the line 4—4 of Fig. 3 and looking in the direction indicated by the arrows. Fig. 5 is a detail perspective view of the agitating members and operating handle connected thereto, the same being detached from the sifter.

Referring to the drawings there is shown my improved sifter which comprises a cylindrical body 10, preferably constructed of sheet metal and having open upper and lower ends, the overlapped portions 11 of the section of metal forming the body being

secured, together in any suitable manner such as by means of rivets 12 vertically of its height.

Arranged in the body 10 are a series of semi-spherical sieves 13 having the metallic reinforcing rims 14, said sieves being arranged in superimposed relation or spaced vertically one above the other within the body 10 above its lower end and the body 10 is further provided with a pair or series of openings 15 upon one side thereof and in vertical alinement, said openings being disposed in close proximity to the upper edges of the respective lowermost sieves adjacent their reinforcing rims. These openings are adapted to permit the discharge of the unsifted particles of the flour or material sifted after the operation has been carried out thereby insuring that the screens will be thoroughly cleaned of any particles which do not pass through the screens of the sieves and thus prevent hindrance to the actuation of the agitators.

My improved agitator comprises a series of short lengths of wire having depending semi-circular portions 16 adapted to lie in a common plane and to extend into each of the sifters for contact with their inner surfaces and each of said wires forming an independent agitator for each sieve has its common end portions 17 extended through openings in one side of the body of the sifter as shown at 18 to form a pivot for each of said portions. These portions 17 are also extended through the metallic reinforcing rims 14 of each of the sieves to retain the same in position and the portions of the wires forming the agitators are similarly extended through diametrically opposite points of the rims and body and protrude therefrom as shown at 19. These portions 19 are bent at right angles and in a horizontal position as shown at 20 when the semi-circular portions 16 of the agitating mechanism are disposed in a depended position.

By the formation of the horizontal portions 20, a series of parallel cranks are formed, certain of which and in the present instance the upper and lower cranks or horizontal portions are formed with outwardly extending hooked extremities 21 which are connected to a vertical pivot bar 22, said hooks being extended through openings in said bar adjacent its upper and lower ends and adapted for pivotal movement

therein. The centralmost of the horizontal portions 20 is extended through the bar 22 in a similar manner but is extended outwardly at right angles for the attachment of a loosely mounted operating handle 23 which is adapted to be vertically reciprocated in the actuation of my improved agitator.

In the operation of the device, the material to be sifted is placed within the body and upon the upper sieve and owing to the condition thereof, certain of the material will fall through the remaining sieves but in order to thoroughly agitate the material to break up the lumps and to force the latter as well as the remaining material through the sieves, the handle is reciprocated vertically. In this action said handle describes an arc of a circle with the ends of the wires forming the agitators as pivots and the semi-circular portions 16 are thus reciprocated in contact with the inner surfaces of the sieves to thoroughly sift the material therethrough. By the provision of a series of superimposed sieves having simultaneously actuated agitators, the same can be operated by a single reciprocating handle and the sifting operation thus accomplished in one operation of the passage of the material through the sifter. By the provision of the openings 15, the unsifted particles may be readily emptied from each sieve and furthermore the particular manner of supporting the sieves through the medium of the agitating wires renders the

construction extremely simple, durable in use and economical in the manufacture. As will also be noted from the drawings, the uppermost sieves extend into the sieves therebeneath for a sufficient distance to permit a greater number of the said sieves to be placed within the body and also to form a discharge spout in effect, for each sieve in connection with the openings in the body to permit the proper emptying of the unsifted particles therefrom, and also to restrict the space between the respective sieves so that the material will be more quickly and thoroughly sifted.

I claim:—

In a flour sifter, a cylindrical body having open upper and lower ends, semi-spherical sieves arranged one above the other within the body, agitating wires having their ends mounted in diametrically opposite sides of the body to support the sieves and having semi-circular portions extending in contact with the sieves, common ends of the wires being bent at right angles and in parallel relation, a connecting member for the ends of said last mentioned portions and a handle for reciprocating the connecting member and simultaneously oscillating the agitators.

In testimony whereof, I affix my signature, in presence of two witnesses.

LEANNA V. DANIELS.

Witnesses:

E. R. ZALESKY,
R. S. BUSHNELL.