No. 875,868. PATENTED JAN. 7, 1908.

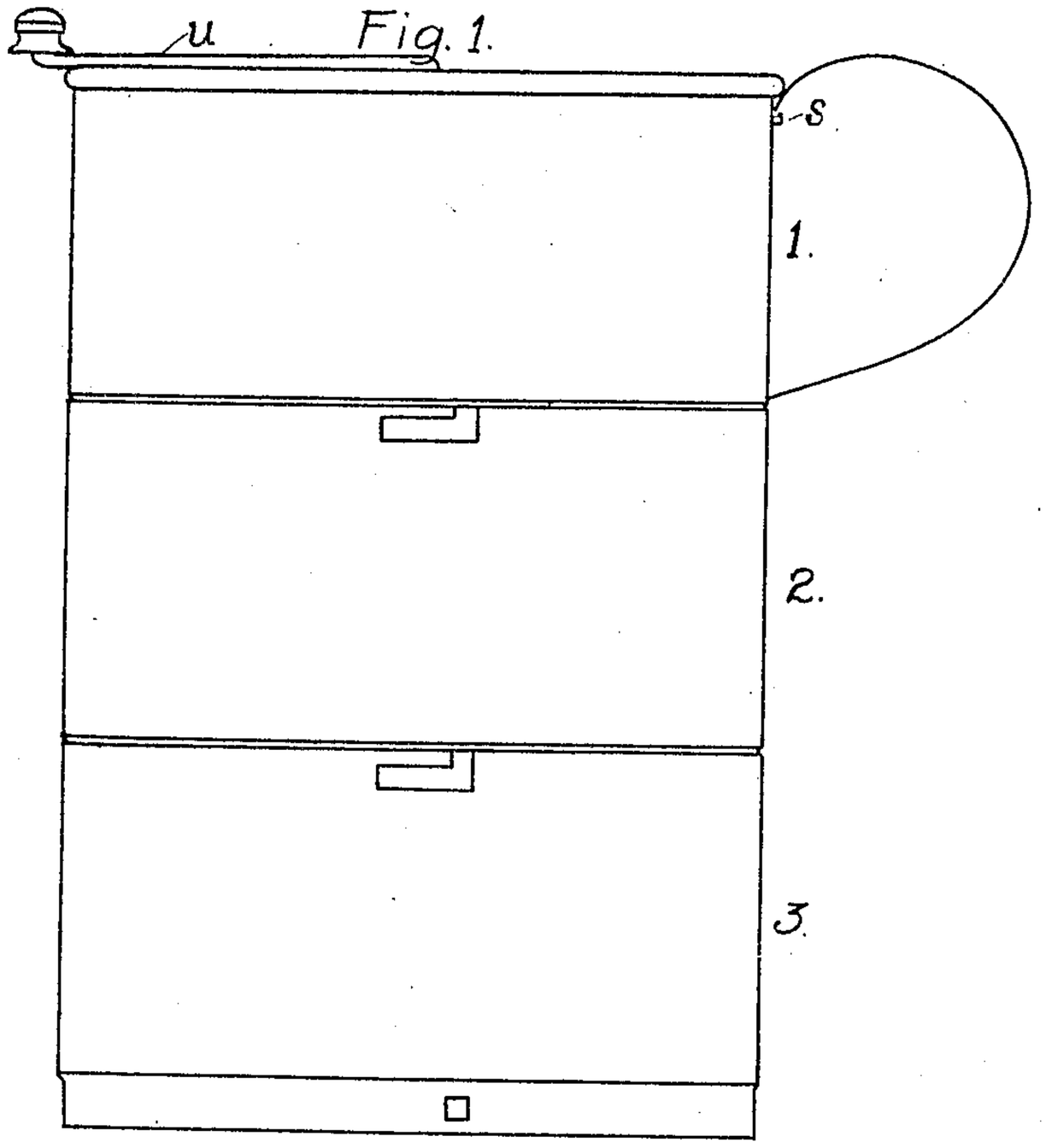
J. E. TRICE.

FLOUR SIFTER.

APPLICATION FILED JAN. 24, 1907.

2 SHEETS—SHEET 1.

Fig. 1.



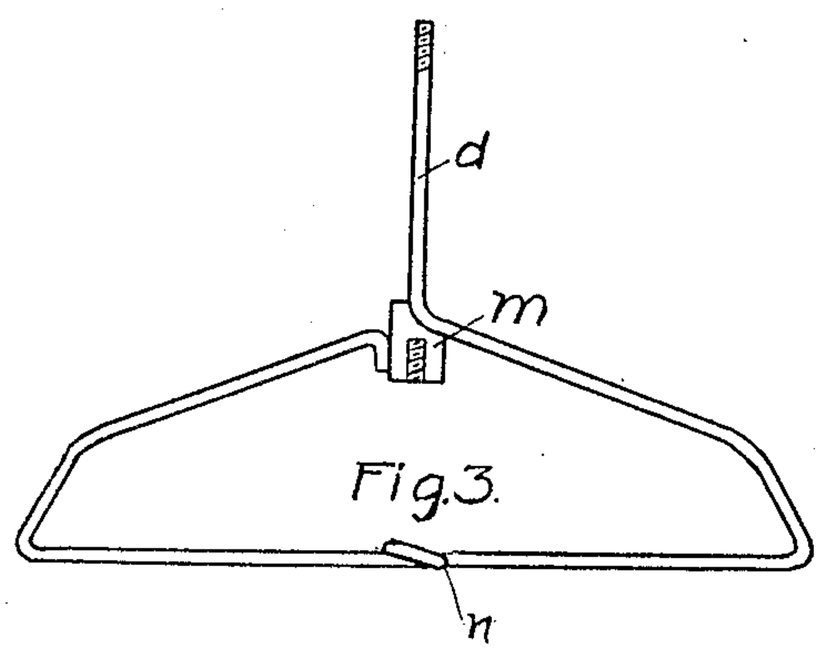


Fig. 3.

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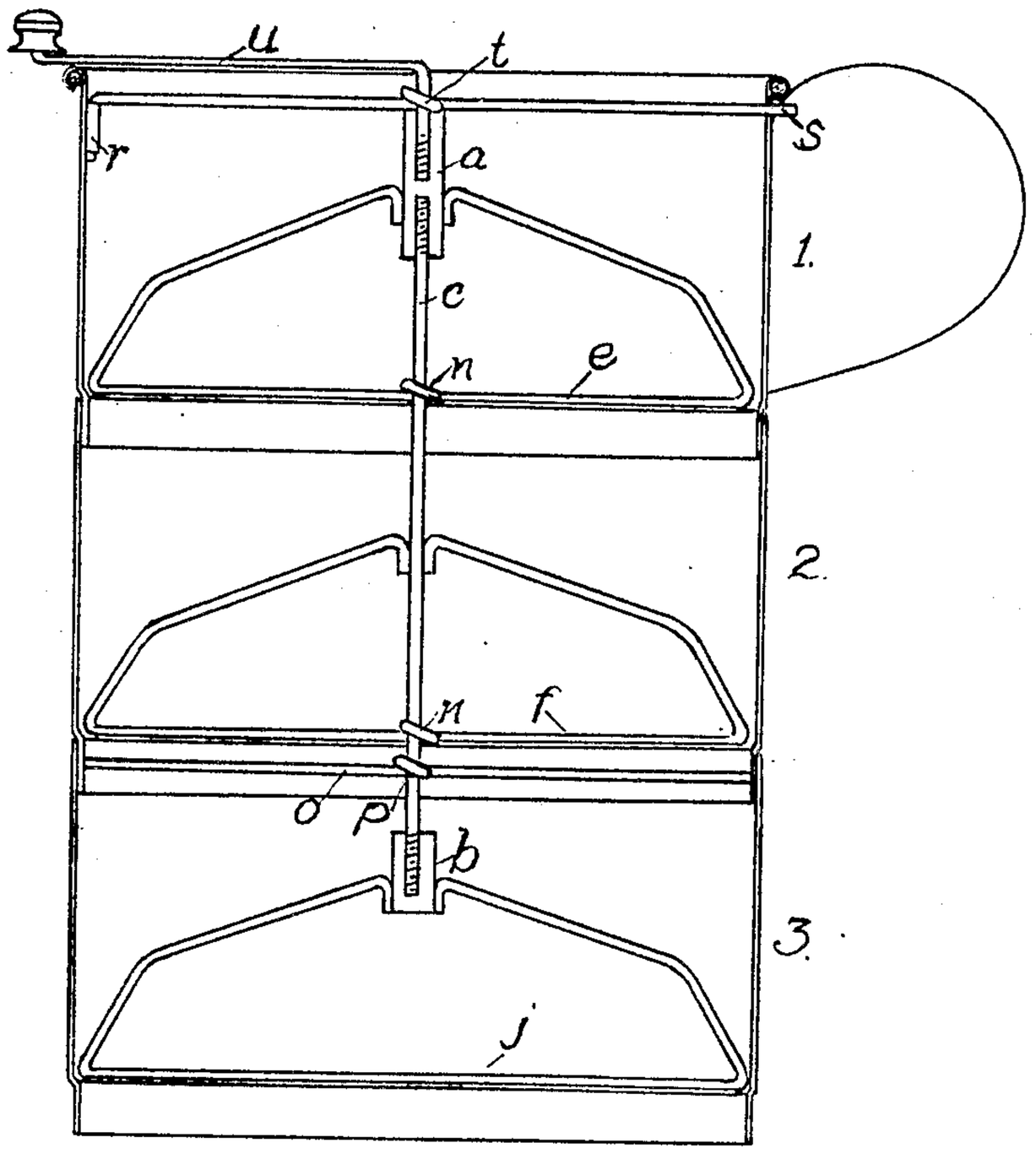
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2 SHEETS—SHEET 2.

Fig. 2.



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JERENA E. TRICE, OF CLAY CENTER, KANSAS.

FLOUR-SIFTER.

No. 875,868. Specification of Letters Patent. Patented Jan. 7, 1908.

Application filed January 24, 1907. Serial No. 353,792.

To all whom it may concern:

Be it known that I, JERENA E. TRICE, a citizen of the United States, residing at Clay Center, in the county of Clay and State of Kansas, have invented new and useful Improvements in Flour-Sifters, of which the following is a specification.

My invention relates to improvements in flour-sifters in which a revolving scraper or stirrer is connected with a vertical shaft having a handle or crank for operating the same; and the objects of my improvements are; first, to construct a sifter provided with detachable sections, each section having its own sieve and stirrer; second, a sectional shaft which may be easily and firmly connected together, whereby the several stirrers are all operated by one and the same movement; third, to provide a simple multiple-sifter which may be easily operated, its several sections easily separated, sections removed therefrom or other sections added thereto without limit; the whole enabling the operator to sift flour or other atoms or particles any desired number of times at one and the same operation. The same mechanical construction with the meshes of the sieves or screens graded in size as desired may be applied to the screening of coal and other products and separating them into the several sizes desired. I attain these objects by means of the mechanism hereinafter described and illustrated in the accompanying drawings, in which—

Figure 1 is an assembled view of my invention; Fig. 2, a vertical sectional view showing the internal mechanism; Fig. 3, a detail view of the shaft and stirrer in an intermediate section.

Similar letters and numerals of reference indicate like parts throughout the several views.

As illustrated, my invention consists of sections numbered 1, 2 and 3 with a separate view of the intermediate section. In the bottom of each section is secured a sieve and through the center of each sieve, excepting the bottom sieve, a hole is provided by means of the loop *n* for the passage of the shaft. Section numbered *l* is independent and may be used alone when only one sifting is desired and, in principle, is constructed in the usual manner of those now in general use; excepting that, in providing, for the attachment of other sections, the block *a* is tapped from the lower end upward to receive the shaft which passes down through the loop *n* in the stirrer and is attached by means of tapped-block *b* to and operates the lower stirrer *j*. This lower stirrer, however, may be constructed of a single piece of wire with the extension *d* forming the shaft with its upper end threaded and screwed into the block *a*.

A loop *n* is formed in the cross-section of the stirrer as in all of the others, excepting the bottom one, through which to pass another shaft from below and around which said stirrer rotates. Secured to the stirrer is the tapped-block *m* into which said other shaft is screwed when more than two siftings are desired. When, however, more than two sections are used, it is deemed advisable to construct the two bottom sections with the intermediate stirrer *f* firmly secured to the double-length shaft *c* approximately midway of its length. Across this section is also provided a brace *o* having loop *p* through which passes the lower end of said shaft *c*, thus serving to steady the shaft. It is only necessary that the casing of each lower section should be of sufficient depth to carry the stirrer; as, will be readily understood, the flour will pass through each section as rapidly as it comes from the section above. The top section, however, may be made of any desired capacity.

The casings are preferably made of sheet metal, one section overlapping the other and locked together in a well known manner by means of a swell or lug on one of the joined sections fitting into a groove, slit or depression extending vertically from the edge of the other section and thence at a right angle thereto for a short distance around the periphery. The top or first section is provided with the usual crank *u* screwed into the top of the block *a* and a brace *s* extending through a hole in the side of the casing is provided with loop *t* for the passage of said crank *u*, extends across said section, bent at its opposite end and dropped into the pocket *r* secured to the casing; said brace serving to steady the shaft when the sifter is in use.

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

A sifter, comprising a top section, a bottom section, and an intermediate section,

inter-engaging lugs and L-slots on said sections for holding them detachably connected, a screen at the bottom of each section, a stirrer for each section, a block tapped on two sides attached to the top stirrer, a tapped block attached to the bottom stirrer, a shaft engaging the threads at one side of said block attached to the top stirrer and also engaging the block on the bottom stirrer, and attached to the intermediate stirrer, and an operating crank engaging the threads at the other side of said top block.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JERENA E. TRICE.

Witnesses:
E. F. STACKPOLE,
HY. W. STACKPOLE.