

(No Model.)

A. H. SCARLES.  
GRATER.

No. 507,287.

Patented Oct. 24, 1893.

Fig. 1.

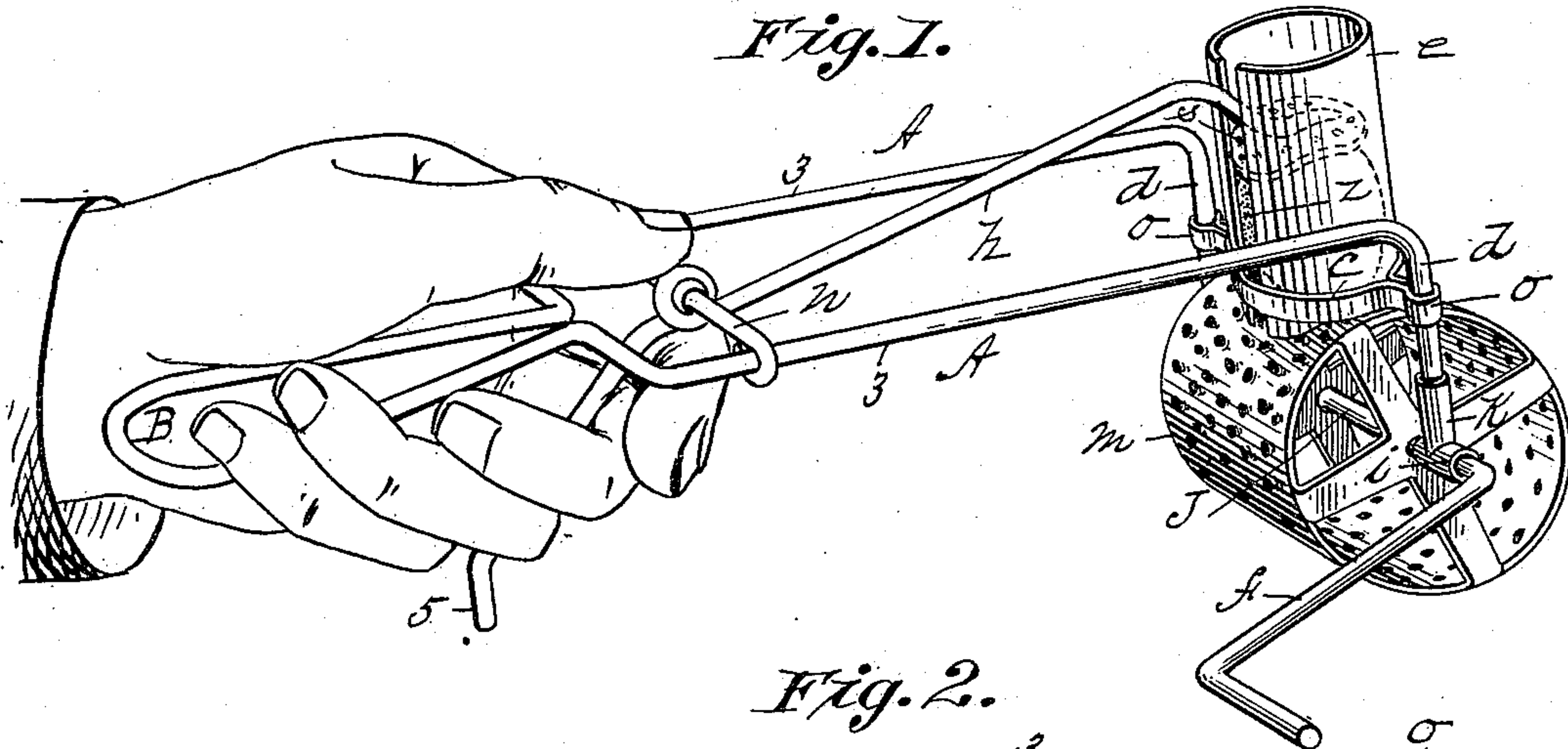


Fig. 2.

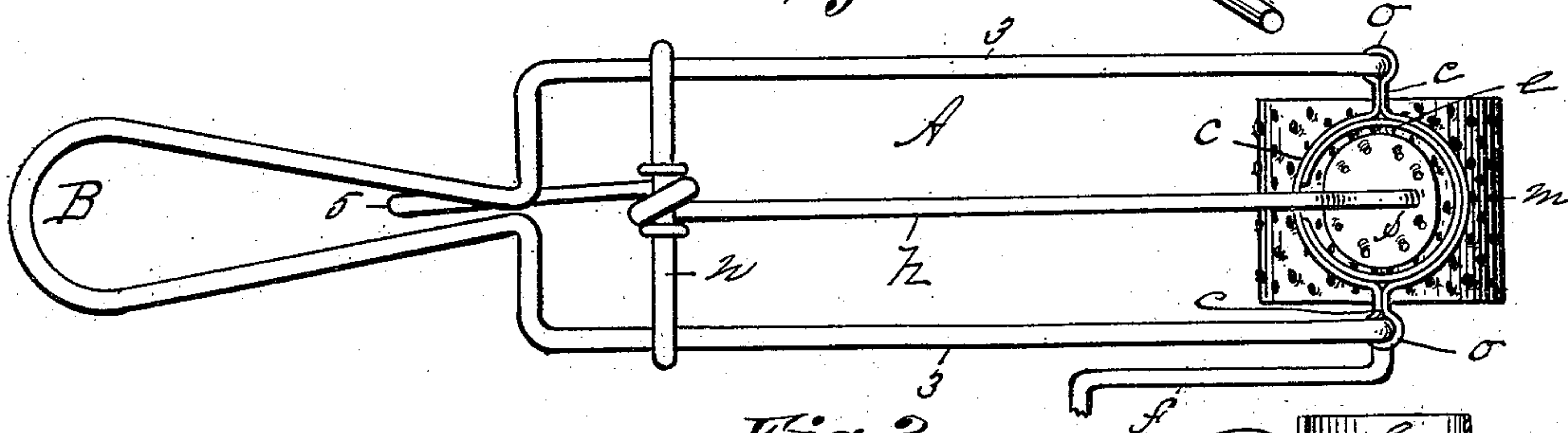


Fig. 3.

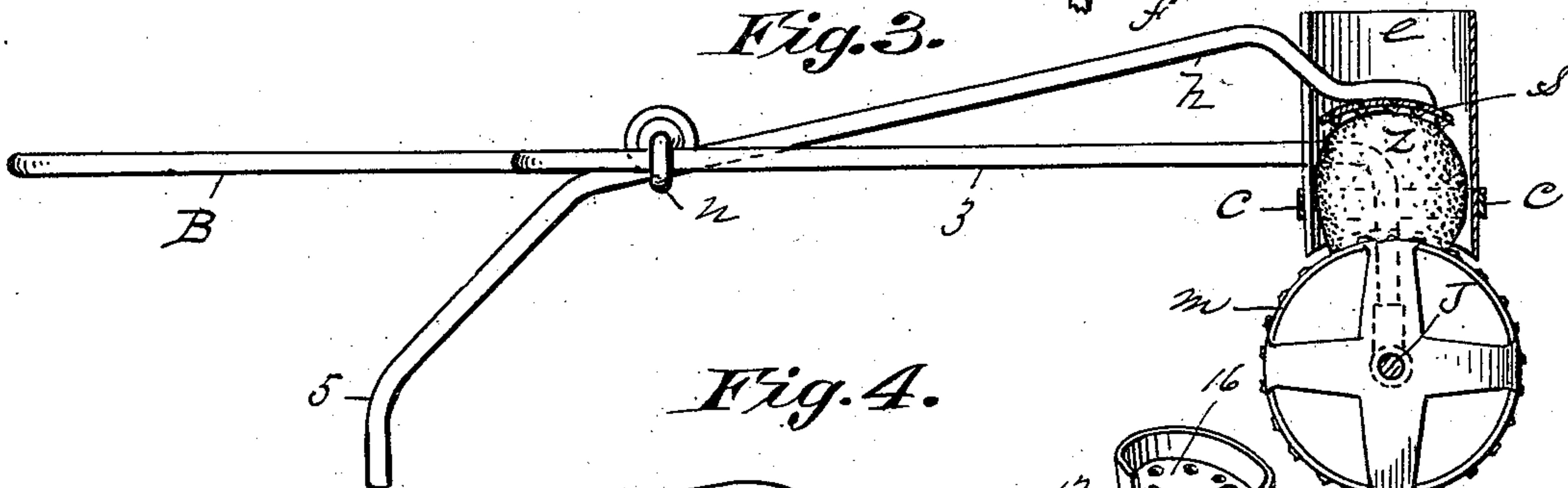
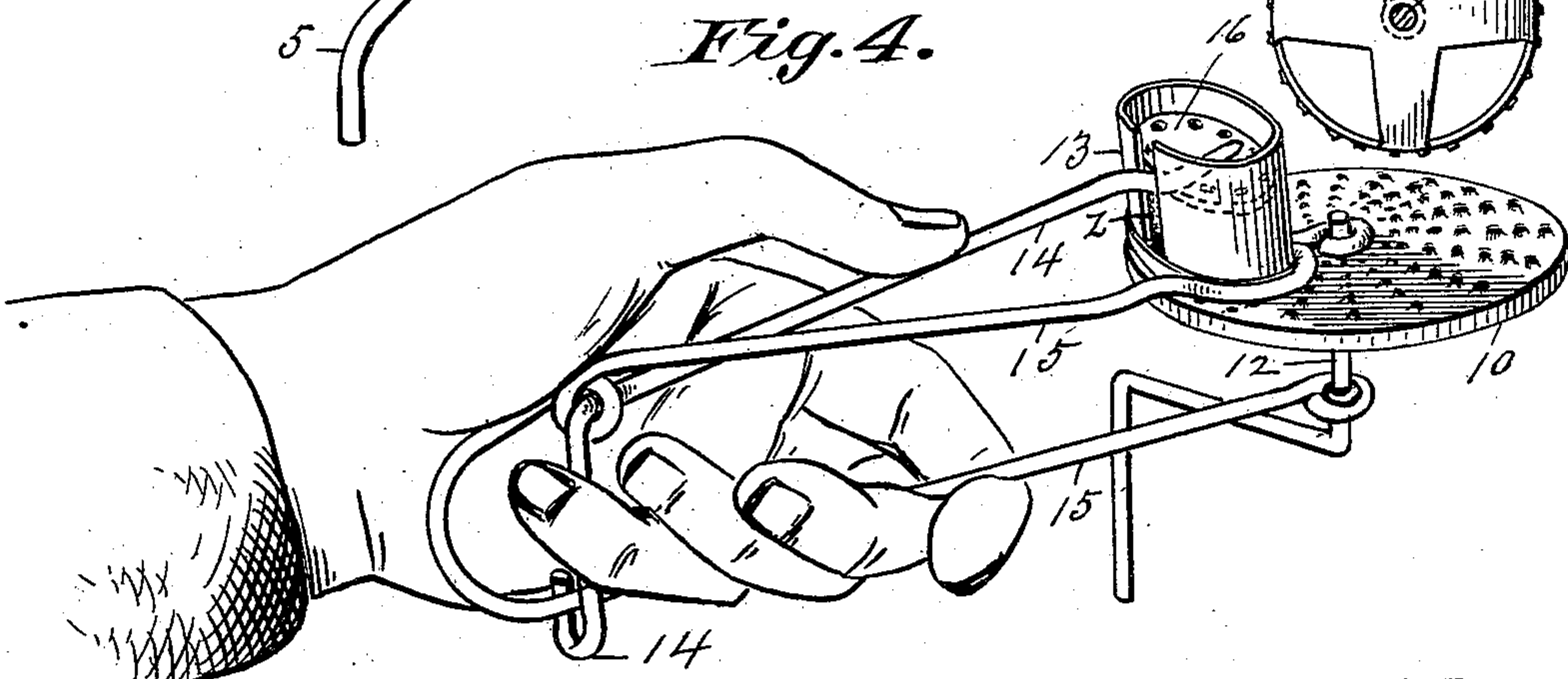


Fig. 4.



Witnesses:  
J. D. Goffield  
H. A. Clemons

Inventor:  
Alfred H. Scarles  
By *Chapman*  
Att'y



# UNITED STATES PATENT OFFICE.

ALFRED H. SCARLES, OF SPRINGFIELD, MASSACHUSETTS.

## GRATER.

SPECIFICATION forming part of Letters Patent No. 507,287, dated October 24, 1893.

Application filed January 5, 1893. Serial No. 457,352. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED H. SCARLES, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Graters, of which the following is a specification.

This invention relates to graters, the object being to provide an improved machine of this class, for holding and grating nutmegs and other similar substances, and the invention consists in the peculiar construction and arrangement of the several parts of the machine, all as hereinafter fully described, and more particularly pointed out in the claim.

In the drawings forming part of this specification, Figure 1 is a perspective view of a grater embodying my improvements, said figure illustrating the manner of holding the machine for operation. Fig. 2 is a top plan view. Fig. 3 is a longitudinal section. Fig. 4 illustrates a modified construction of that shown in the preceding figures.

In the drawings A is a metallic frame, preferably of wire, consisting of two parallel members, 3, 3, bent at one end to form a handle, B, and having the opposite extremities of said members bent at right angles to the said parallel parts, thereby forming two arms, *d*, and of a cross-bar, *n*, rigidly fixed to said parallel members, 3, 3. A tubular nut-case, *e*, or holder for nutmegs or other objects to be grated, preferably of metal and of cylindrical form, is attached to, and supported between, said arms, *d*, as clearly shown in Fig. 1. The preferable manner of attaching said case to said arms, is that shown in the drawings, and consists of a metallic strap, *c*, bent to the cylindrical form of, and inclosing said case, and soldered or otherwise suitably attached thereto, said strap having on opposite sides, two loops, *o*, which surround and are fixed to said arms, *d*, preferably by soldering. The said nut-case is longitudinally slotted at *x*, to permit the end of the pressing lever, *h*, to pass through the side of the said holder. To the extremity of each of said arms, *d*, is rigidly fixed a tubular T-connection, K. The horizontal portion, *i*, of said T-connections serve as bearings for the shaft, J, of the cylindrical grater, *m*, said shaft having a suitable crank,

*f*, on one end thereof. Said cylindrical grater, *m*, is made of suitable sheet or other metal, is punctured as usual, and provided with suitable heads, and is rigidly secured on said shaft, J. Said cross-bar, *n*, constitutes a support for the aforesaid pressure lever, *h*, the latter being hung on said bar in such a manner that it has a free vibratory movement thereon. The extremity of the long arm of said lever, *h*, enters said nut-case, *e*, as above mentioned, and has a metallic holding pad, *s*, fixed thereto, having roughened projections on its under side, or otherwise arranged to frictionally hold the nut or other thing which may be placed under it from moving, when the grater cylinder, *m*, is turned for grating said object. The short arm, 5, of said pressure-lever extends rearwardly and downward from said bar, *n*, on which it is hung, under the handle, B, and in convenient position to be grasped by certain fingers of the hand which hold the machine, as shown in Fig. 1.

The operation of the machine is as follows:—It is held by one hand, as shown. The lever, *h*, is swung to lift the pad, *s*, out of the case, *e*. The nutmeg *z* or other thing to be grated is placed in the latter. The lever, *h*, is operated to bring the pressure pad, *s*, to a bearing position against the object in the case, *e*, thereby forcing said object against the grating cylinder, *m*, and the latter is then turned by the crank, *f*, to effect the required grating.

The modified construction illustrated in Fig. 4, includes substantially the same operative elements as are shown in Figs. 1, 2, and 3, excepting that in Fig. 4, the grating element consists of a metallic disk, 10, instead of a cylinder, said disk being secured on a crank-shaft, 12. Said crank-shaft has its bearings on the frame-members, 15, 15, the nut-case, 13, is secured to one of said members, 15, and is otherwise substantially like that of Fig. 1. A pressure-lever, 14, has a pad, 16, on one end, and it is hung to vibrate on the frame as shown, and is operated by the thumb to press said pad against the object in said case, as shown.

What I claim as my invention is—

In a grater, the wire-frame, A, consisting of two parallel members, 3, 3, the handle, B, formed at one end of the frame and having an arm, *d*, bent at right angles on the extrem-

ity of each of said members, 3, 3, said frame  
parts being integrally formed from a single  
piece of wire, a shaft-bearing on the extrem-  
ity of each of said arms, a crank-shaft hung  
5 in said bearings, a rotatable grating element,  
*m*, fixed on said crank-shaft, a nut-case, *e*,  
supported between said arms, *d*, and a press-  
ing lever, *h*, hung on said frame having one

end entering said case, and its opposite end  
extending under the handle, *d*, combined and 10  
operating substantially as described.

ALFRED H. SCARLES.

Witnesses:

H. A. CHAPIN,

W. S. BELLOWS.