

No. 666,312.

Patented Jan. 22, 1901.

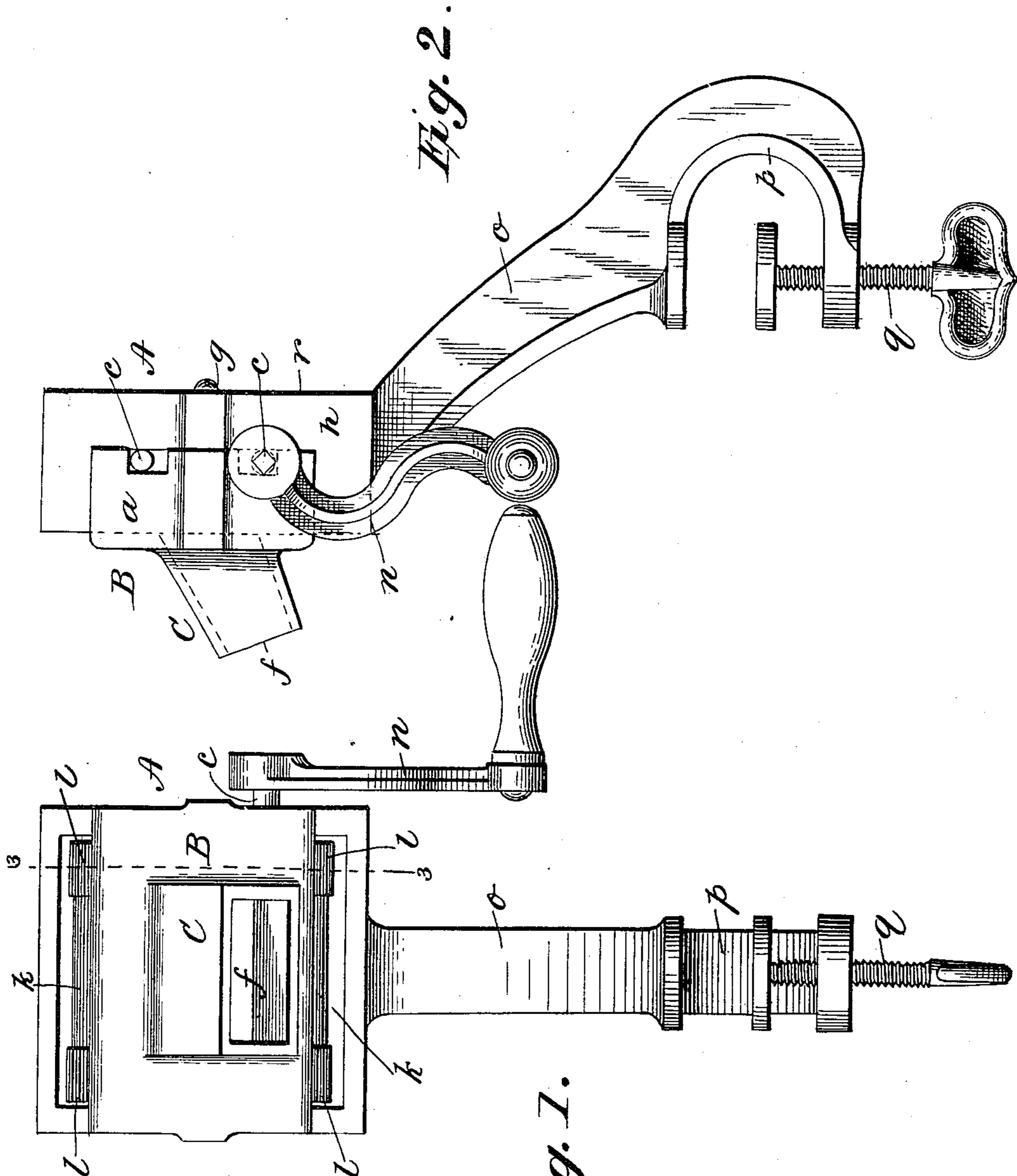
C. H. HOWLAND-SHERMAN & A. M. BENNETT.

PEA SHELLER.

(No Model.)

(Application filed Feb. 19, 1900.)

2 Sheets—Sheet 1.



WITNESSES:
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Fig. 1.

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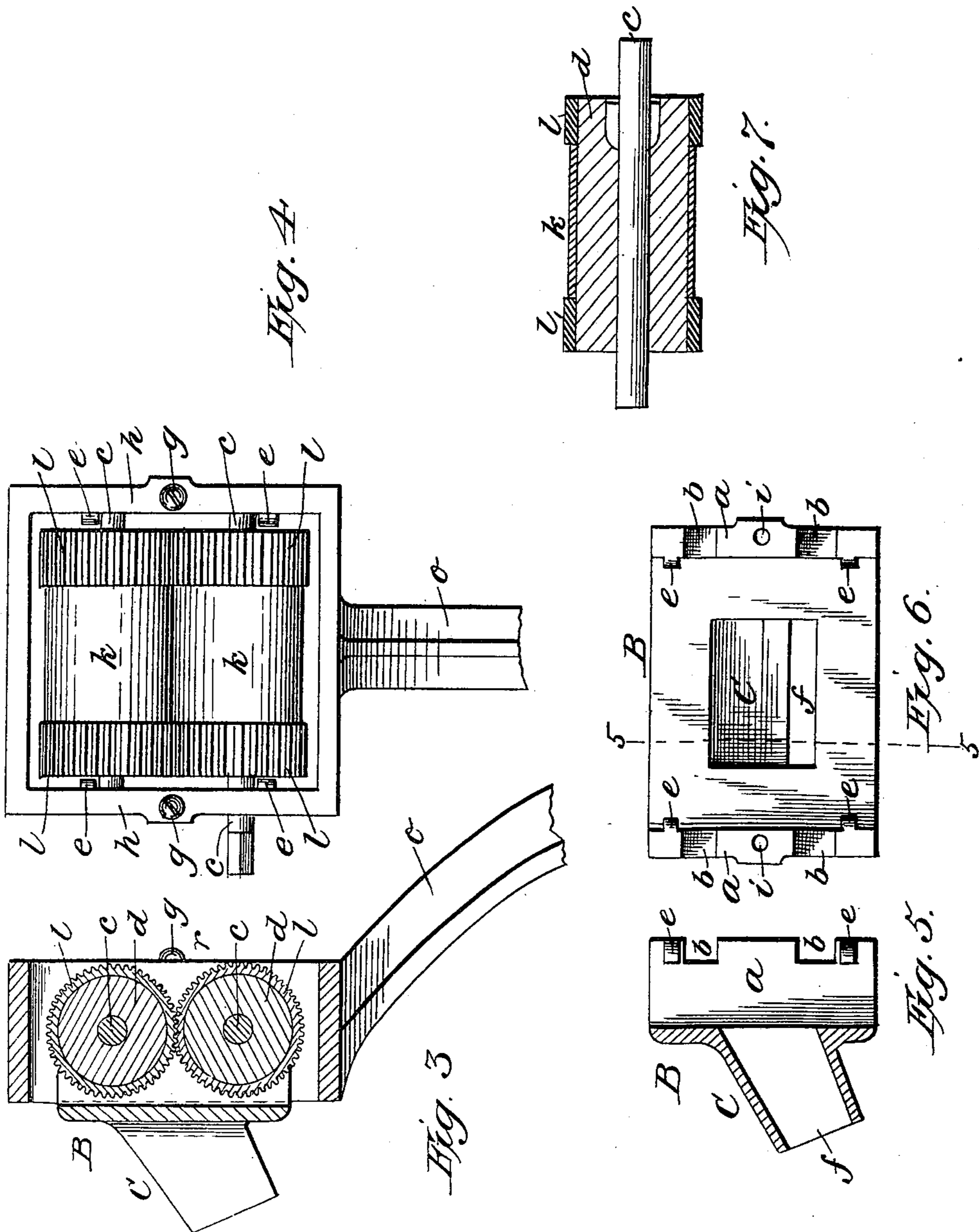
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UNITED STATES PATENT OFFICE.

CHARLES H. HOWLAND-SHERMAN AND ALAN M. BENNETT, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNORS OF THREE-FOURTHS TO AGNES S. ADAM, OF SAME PLACE.

PEA-SHELLER.

SPECIFICATION forming part of Letters Patent No. 666,312, dated January 22, 1901.

Application filed February 19, 1900. Serial No. 5,724. (No model.)

To all whom it may concern.

Be it known that we, CHARLES H. HOWLAND-SHERMAN and ALAN M. BENNETT, citizens of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Pea-Shellers; and we 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.

Our invention relates to pea-shellers, has for its object the production of a simple, efficient, and inexpensive article, and consists in certain improvements in construction, which will be fully disclosed in the following specification and claims.

In the accompanying drawings, which form part of this specification, Figure 1 represents a front elevation of our pea-sheller; Fig. 2, a side elevation of the same; Fig. 3, a vertical transverse section on the line 3 3, Fig. 1; Fig. 4, a rear elevation showing the compression of the enlarged ends of the cylinders; Fig. 5, a vertical section of the front of the machine on line 5 5, Fig. 6; Fig. 6, a rear elevation of the front of the machine detached and showing the inside thereof, and Fig. 7 a longitudinal section of one of the cylinders detached and showing the shaft in side elevation.

Reference being had to the drawings and the letters thereon, A indicates the body or frame of the machine, and B the detachable front, having inwardly-extended flanges *a a* on the ends thereof, which are provided with elongated and preferably rectangular bearings *b b*, open on one side for the shafts *c* of the cylinders *d*, and to avoid the expense of turning the customary collars on each end of the cylinders as a lateral bearing to clear the bodies of the cylinders from the frame or of inserting washers for the same purpose the cylinders are cut off square preferably from round merchantable wood-stock, and lateral projections *e e* on the inside of the flanges are substituted for said collars, being cast thereon in such position as to prevent excessive longitudinal play of the cylinders in the same manner as it would be prevented by collars or washers. The bearings *b b* for the shafts

of the cylinders *d* are cast in the flanges to avoid the necessity of drilling, boring, or otherwise machining the bearings and facilitate the assembling of the cylinders with the body A and the detachable front, as the rolls are simply placed in the front B, with the shafts *d* lying in the bearings *b b*, and the front secured to the body by screws *g*. The bearings as constructed reduce the superficial friction of the shaft to a minimum, the object being to avoid the cost of drilling bearings in the body or the flanges and driving the shafts through the cylinders in assembling in the usual manner and to afford ready means for renewing the cylinders of the machine. The front B is also provided with a mouthpiece C, closed on its upper side and having, primarily, the function of receiving the peas as fed to the rolls or cylinders and, secondarily, combining with that function the guidance out of the sheller of the peas as they are shelled. This mouthpiece is inclined downward and outward to prevent peas as they are expelled from the pod being projected away from the receptacle designed to collect them. The mouthpiece crosses the machine longitudinally and is provided with a rectangular opening *f* to simultaneously admit several pods abreast as they are fed to the machine by the hand of the operator, and the upper side of the mouthpiece deflects the peas downward as they are discharged.

The front is secured to the body of the machine by screws *g*, which pass through the sides *h h* and engage the holes *i i* in the flanges *a a*, as shown in Figs. 2, 4, and 6.

The cylinders *d* are preferably made of wood and provided with a covering *k* on the shelling part thereof and an enlarged covering *l l* at the ends, the central portion presenting a plain surface and the ends preferably a corrugated surface, with the corrugations of one cylinder meshing into the corrugations on the other cylinder under a degree of compression to produce an effective mesh, bite, or friction to cause the cylinders to be revolved synchronously, and whereby the parallelism, equal yield, and continuous engagement of the rolls are maintained. These coverings are all of a resilient material, such

as rubber, being preferably made of merchantable tubing—plain and corrugated—cut into proper lengths and cemented to the wooden cylinders, and the cylinders are held
 5 in proper relation to each other, with the enlarged ends compressed and the central portions preferably just in engagement or slightly separated by the shafts *c* of the cylinders engaging the outer ends of the elongated bearings *b b* in the flanges *a a* of the
 10 front B, as shown in Fig. 2.

One of the shafts *c* is provided with a crank *n*, by which the cylinders *d* are revolved to shell peas as they are supplied to the machine, and the machine is provided with a
 15 bracket *o*, having a jaw *p* and a thumb-screw *q*, by which it is secured to a table or other suitable support.

In the operation of the machine peas fed
 20 through the mouthpiece C are caught between the central parts of the cylinders *d*, the air in the pods compressed, the pods burst, and the peas expelled from the pod and discharged through the mouthpiece, while the
 25 pod travels on through between the cylinders and is discharged at the rear open and unobstructed end *r* of the machine.

The open and unobstructed rear end of the machine affords ready access to the cylinders
 30 and also affords ready inspection thereof to ascertain their condition.

The coverings of the cylinders *d* may be readily renewed at a very slight expense when they become worn, as the rubber tubing of which they are made may be found for
 35 sale in any well-equipped store dealing in rubber goods.

Having thus fully described our invention, what we claim is—

40 1. In a pea-sheller, the combination of two cylinders, each enlarged at both ends and each having its enlarged end fluted or corrugated; the said rolls being normally held with

their ends in compressed relation, whereby the parallelism, equal yield and continuous
 45 engagement of the rolls are maintained.

2. A pea-sheller provided with cylinders having resilient surfaces enlarged at their ends, in combination with a frame and a detachable front having side flanges provided
 50 with bearings for supporting said cylinders with their ends in compressed relation to each other, and a feeding and discharge mouthpiece crossing the sheller longitudinally.

3. A pea-sheller provided with cylinders
 55 having resilient surfaces; in combination with a frame, and a detachable front having end flanges provided with bearings open on one side for the shafts of the cylinders.

4. A pea-sheller provided with cylinders
 60 having resilient surfaces, enlarged at their ends; in combination with a frame, and a detachable front having end flanges provided with bearings open on one side for the shafts
 65 of the cylinders.

5. A pea-sheller provided with cylinders having resilient surfaces, enlarged at their ends; in combination with a frame, and a detachable front having end flanges provided
 70 with bearings for the shafts of the cylinders constructed to support the cylinders and secure said ends of the cylinders in compressed relation to each other.

6. A pea-sheller provided with cylinders having resilient surfaces; in combination with
 75 a frame, and a detachable front having end flanges provided with bearings open on one side for the shafts of the cylinders and lateral projections on the inside of said flanges.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES H. HOWLAND-SHERMAN.

ALAN M. BENNETT.

Witnesses:

D. C. REINOHL,

W. PARKER REINOHL.