

I. Goodspeed Cork Machine,

N^o 32,497.

Patented June 4, 1861.

Fig. 3.

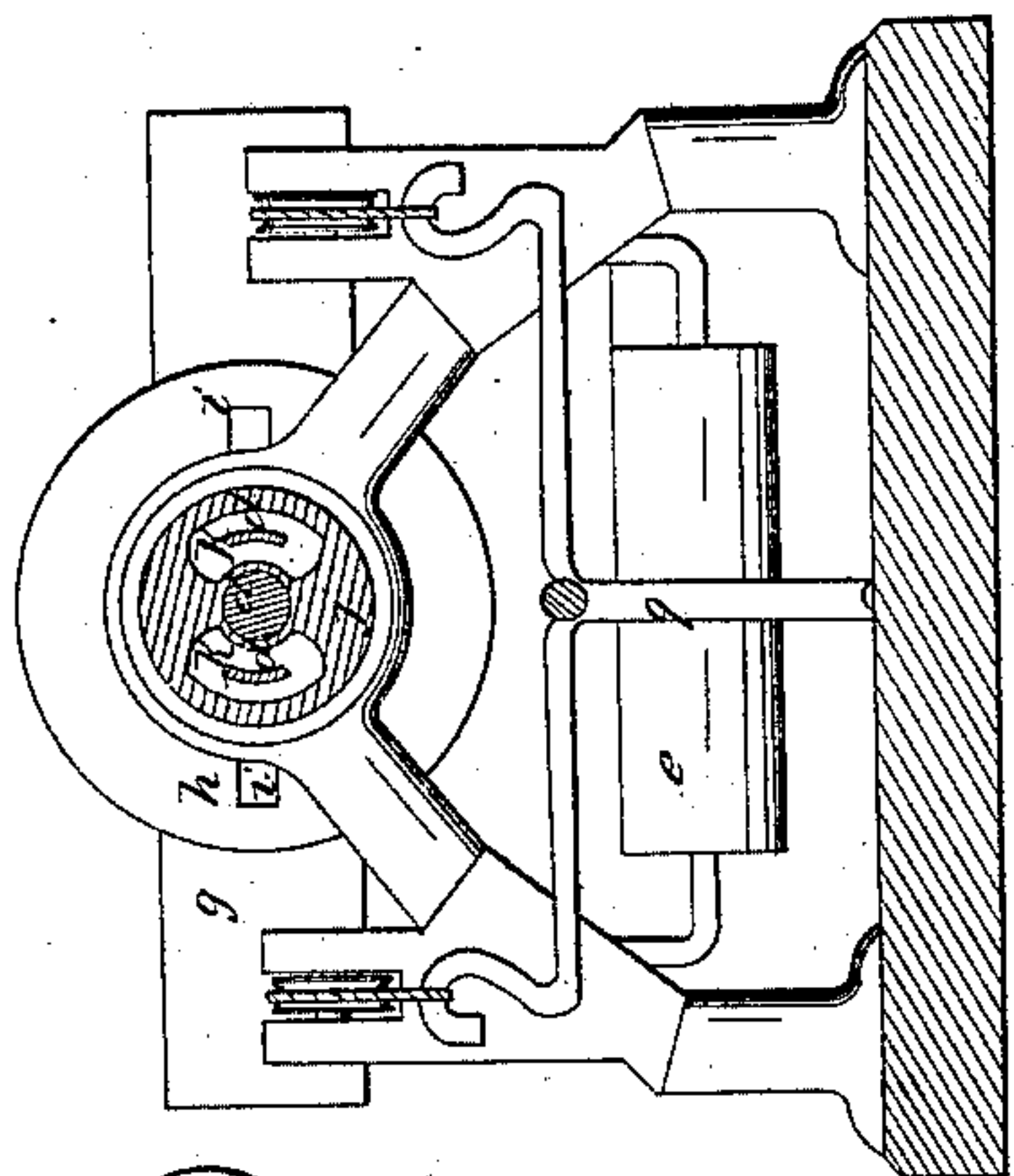


Fig. 4.

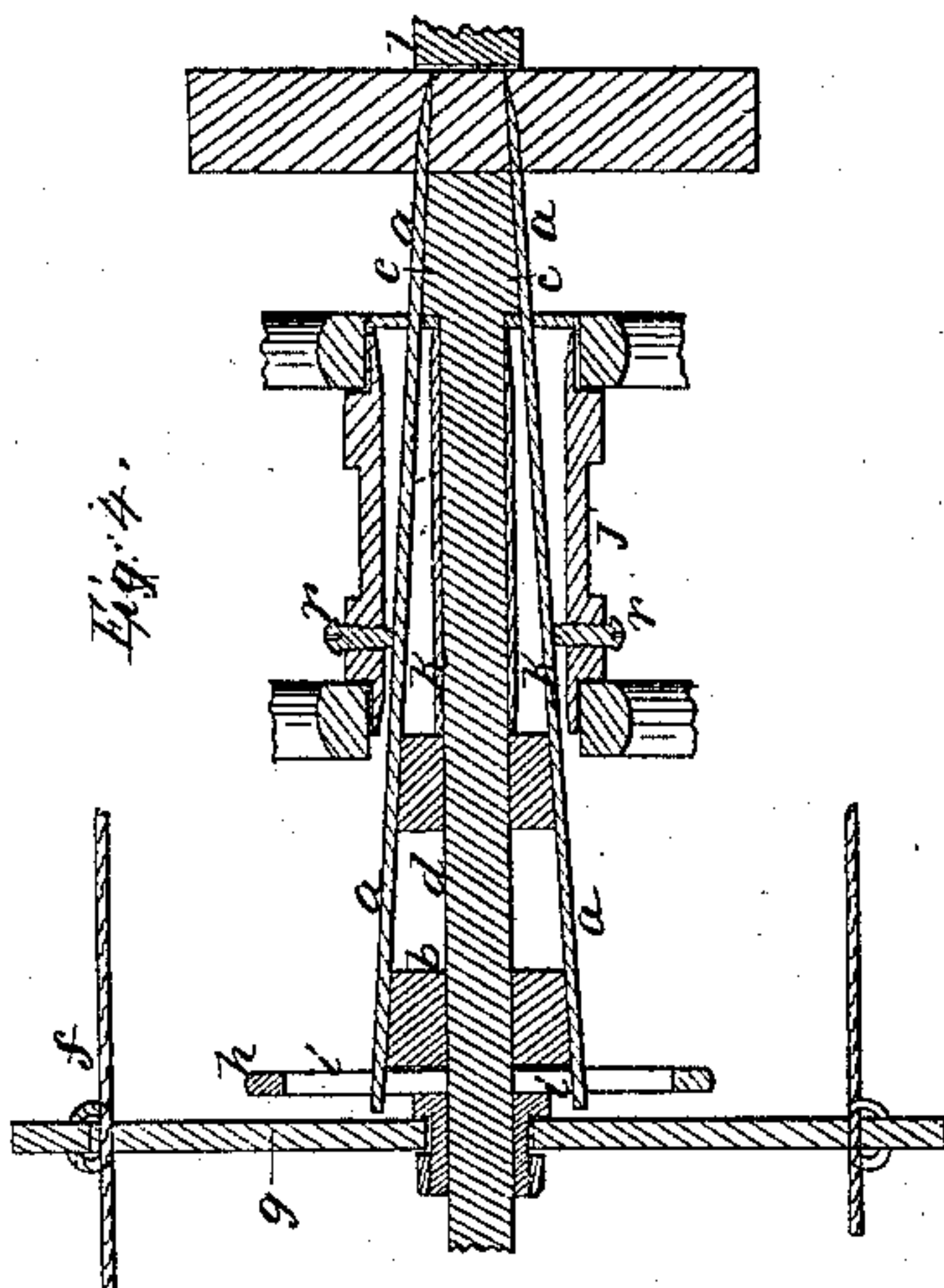


Fig. 1.

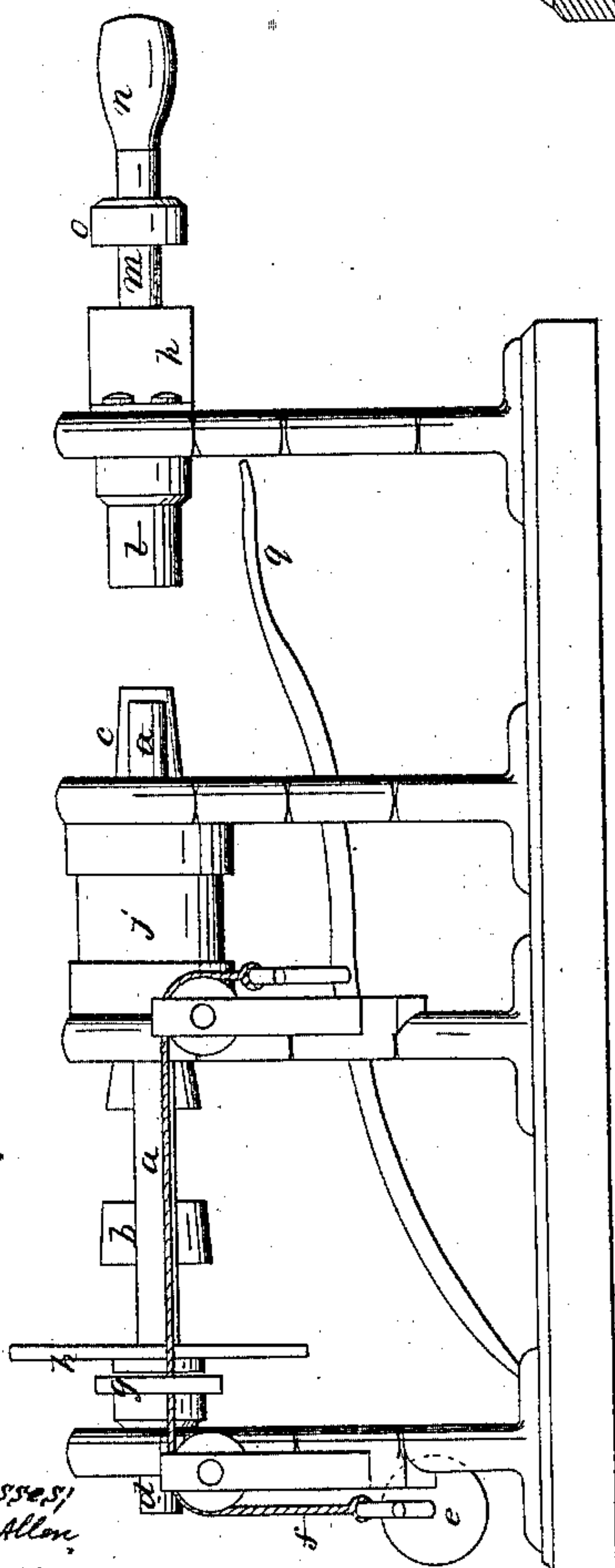
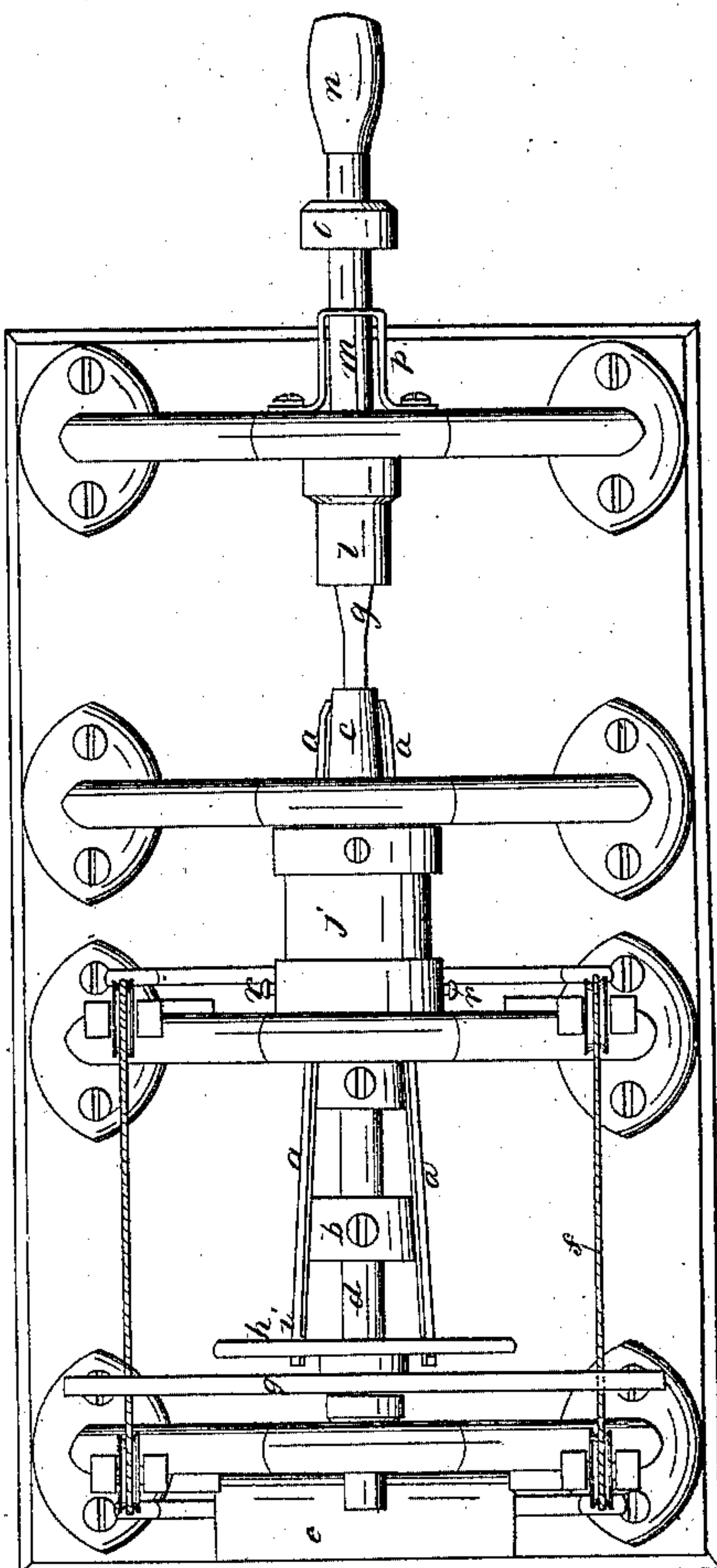


Fig. 2.



Witnesses,
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UNITED STATES PATENT OFFICE.

ISAAC GOODSPEED, OF NORWICH, CONNECTICUT, ASSIGNOR TO HIMSELF AND A. A. GOODSPEED, OF PUTNAM, CONNECTICUT, AND E. S. STEBBINS, OF WORCESTER, MASSACHUSETTS.

CORK-MACHINE.

Specification of Letters Patent No. 32,497, dated June 4, 1861.

To all whom it may concern:

Be it known that I, ISAAC GOODSPEED, of Norwich, county of New London, and State of Connecticut, mechanic, have invented certain new and useful Improvements in Machinery for Cutting Cork Stoppers, and that the following description, with the accompanying drawings, forms a full, clear, and exact specification thereof.

The method of cutting out cork stoppers by a revolving cylindrical cutter, is in common use and operates well for straight cylindrical corks. Some years since this machine was attempted to be modified to cut conical or tapering corks by making several slits in the cutting end of the cylinder, which being made thin and of a spring temper, and the cutting edge being in sharpening, beveled like a chisel on the outside. It was supposed that the effect of the bevel on the outside of the cutter, and of the spring temper combined, would be such as to converge the points of the cutters in passing through the slab of the cork, and thus cut a conical form. In practice the entire machine was found to be a failure—and in the cork manufacture, conical corks are still cut out in a straight cylindrical form, and afterward tapered, (at an additional expense) in a supplementary machine, somewhat analogous to a turning lathe.

My present invention is practically adapted to cut out corks of any required taper, as I have fully tested by experiments with a full sized machine.

The accompanying drawings represent my improved machine.

Similar letters represent similar parts in all the views.

Figure 1, is a side view. Fig. 2, is a top view. Fig. 3, is a vertical cross section, on line A, B, taken through the driving pulley. Fig. 4, is a horizontal section on line C, D, of the rotary cutters, and the adjacent parts of the machine, and in this view the cutters are shown extended, as they appear immediately after having cut through the slab or block of cork, while in the other views the machine is represented as it appears ready for action before the slab is placed in the machine.

(a,) represents the revolving knives or cutters, which may be one, two, or more—these are set in the machine as represented,

and are set at any desired taper by the form of the conical patterns (b, and c,) affixed to the shaft (d,) of which, there may be a number of pairs or sets, belonging to the same machine, adapted to cutting corks of different sizes and tapers.

When the machine is at rest—the cutters, (a,) do not project beyond the end of the shaft (d,) and are so retained by the weight (e,) upon the cords (f,) which are attached to the crossbar (g,) to which, is fixed the revolving wheel (h,) into radiating slots, in which (i) the heels of the cutters are fixed in such a manner as to allow of their expansion in conformity with the various sized patterns or forms (b,) and (c,) used in the machine.

(j,) is the pulley to which the driving belt is applied. This pulley is perforated longitudinally, by the passages or slots (k,) so, as, to allow the free sliding motion through it of the knives or cutters.

The slab of cork, being placed against the wooden bunter (l,) which is fixed on the sliding shaft (m,) the hand of the operator is then applied to the handle (n,) and the shaft advanced until the hub, or stop (o,) brings up against the standard (p,) and ordinarily so coincides with the thickness of the slab or block of cork, that the opposite side of the slab comes against the end of the shaft (d,) the cutters being in revolution the foot of the operator is now placed upon the foot lever (q,) and by the connections apparent in the drawings, the cutters are at once advanced beyond the end of the shaft (d,) and gradually cut their way through the slab of cork on the taper or inclination given to them by the conical patterns (b,) and (c.) After the cork is thus cut the feeding bunter (l,) is thrown back by hand, and the foot of the operator being withdrawn from the foot lever (q,) the action of the weight immediately draws back the cutters, while the cork pressing against the end of the shaft (d,) is prevented from following and is thus forced from the embrace of the cutters and drops down, and the machine is ready to cut another cork as before.

(r,) are a couple of adjustable screws, set in the pulley (j,) the office of which is to press the cutters (a,) gently down to their loose or sliding fit upon the various sized

patterns (*b*,) and (*c*,) that are used in the machine.

Having thus described my improved machine as conveniently adapted for cutting
5 conical corks of various sizes and tapers, what I claim as my invention, and desire to secure by Letters Patent is—

1. The changeable conical patterns (*b*)

and (*c*) arranged in the machine substantially as described.

2. The adjustable screws (*r*) or their equivalent for the purposes set forth.

ISAAC GOODSPEED.

Witnesses:

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10