H. Kellish.

Gage Lathe.

No 63,414. Patented Apr. 2. 1867.

Fig: 1

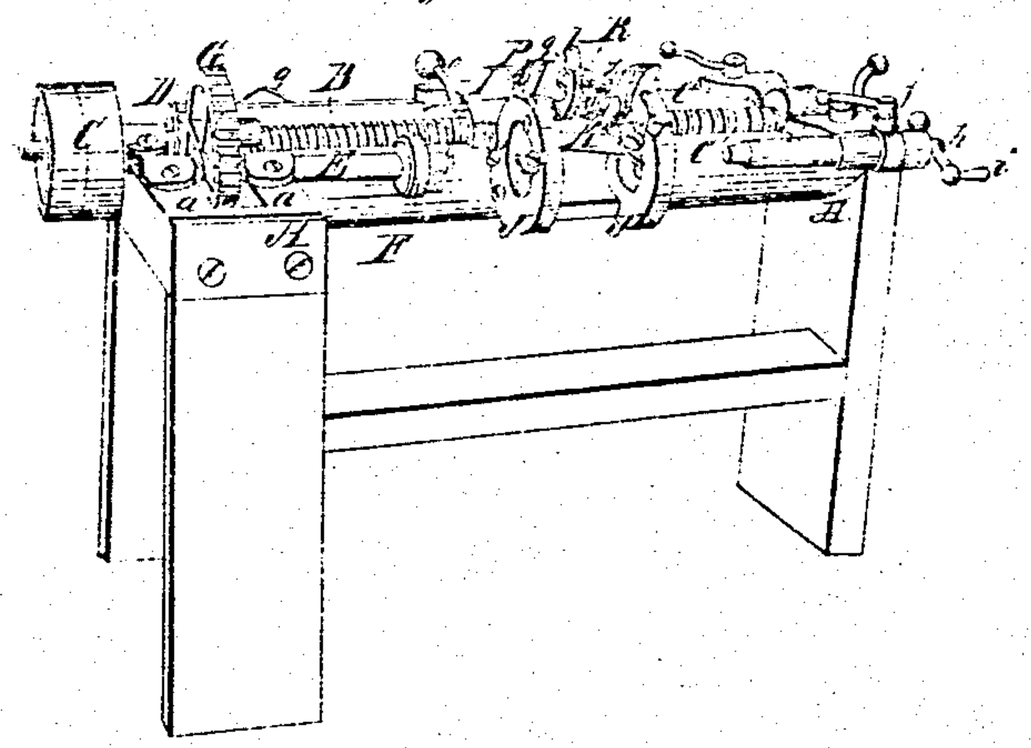

Fig: 2.

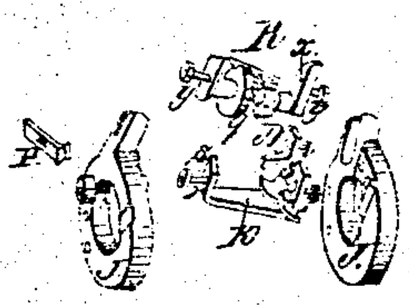

Fig: 3.

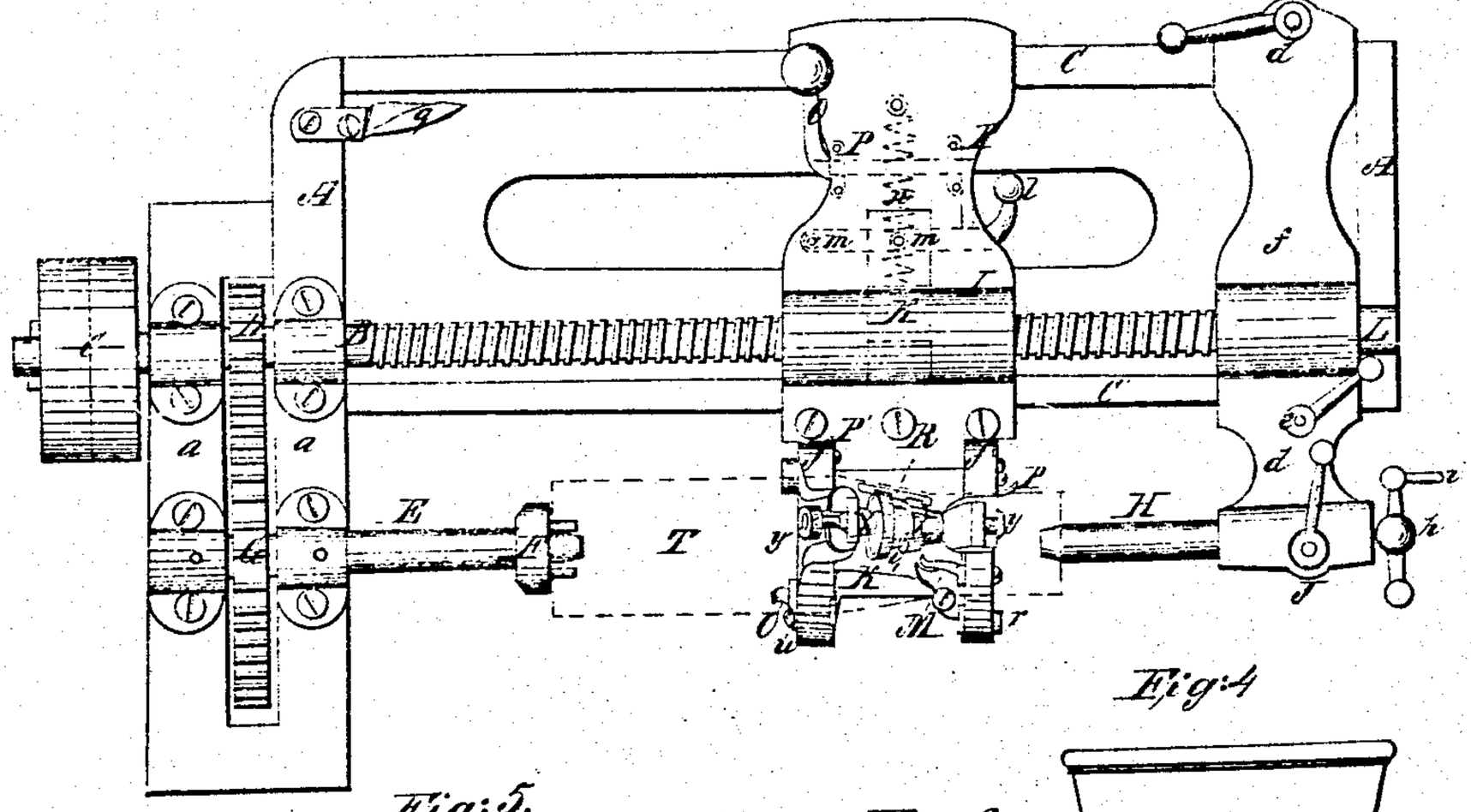

Fig: 4

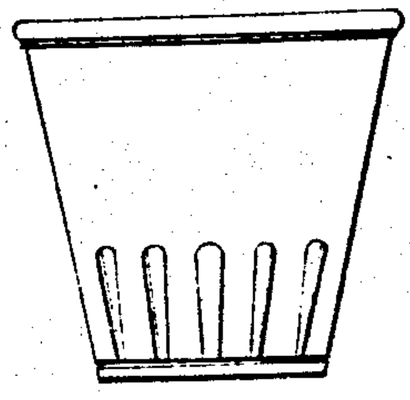

Fig: 5.

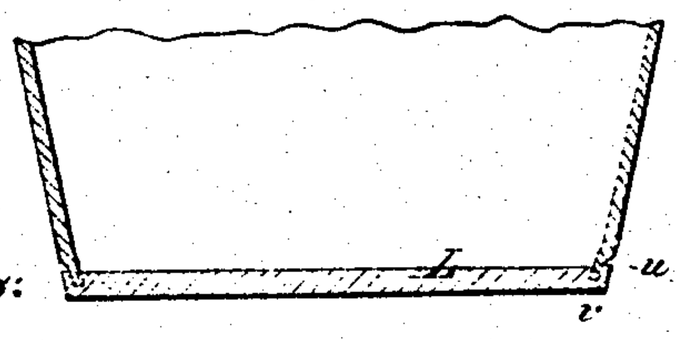

Fig: 6.

Witnesses:

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Inventor:

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United States Patent Office.

HENRY MELLISH, OF WALPOLE, NEW HAMPSHIRE, ASSIGNOR TO DAVID LYMAN, WASHINGTON WHITNEY, AND GILMAN WAITE.

Letters Patent No. 63,414, *dated April* 2, 1867.

IMPROVEMENT IN MACHINES FOR CUTTING OUT THE BODIES OF FRUIT-BASKETS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, HENRY MELLISH, of Walpole, in the county of Cheshire, and State of New Hampshire, have invented certain new and useful Machinery for Making Bodies of Fruit-Baskets; and I do hereby declare that the following is a full and exact description thereof, reference being had to the annexed drawings.

I will first describe which I consider the best mode of carrying out my invention, and afterwards point out the features which are new.

Figure 1 is a perspective view of the machine.

Figure 2 is a view of the cutters, and also of the rings and other apparatus that are attached to them; they being detached from the machine so as to show their forms more distinctly.

Figure 3 is a plan view of the machine with a log in place.

Figure 4 is a side view of a fruit-basket, such as my machine aids in making.

Figure 5 is a vertical section of the lower portion of such basket on a larger scale.

Figure 6 is a cross-section through a portion of the side of such basket on a still larger scale, showing the upper edge only.

Similar letters of reference indicate like parts in all the figures.

Reference being had to the drawings, A A is the frame of the machine, B the driving-arbor and feeding-screw to which the driving-pulley C and pinion D are attached. This arbor and the head centre arbor E, to which the pare-plate on chuck F and the main driving-gear G are attached, are arranged to turn in boxes in cross-rails *a a* at one end of the machine, the screw portion of the arbor B extending to a bearing, *b*, at the opposite end of the machine. C^1 C^2 are rails or ways on which are fitted the tail centre H and the sliding-rest I to hold and move the rings J J′, to which the cutting apparatus is attached, so as to traverse securely on the ways. The tail centre rest *f* may be made fast at any point on the ways by turning down the nuts *e e* of the bolts *d d*, which pass up through the rest hooking on to the under edges of the ways. This rest projects in front of the way C^2 to receive and hold the tail centre H in line with the head centre E. The tail centre may be moved forward and back in the head of the rest with the screw *h*, which works into it by turning the screw-handle *i*, and may be made fast with the set-screw *j*. The sliding-rest I has an opening or slot in it, which has one-half of a female-screw box, *k*, fitted to slide in it, so as to connect with the feeding-screw B by pulling forward the lever *l*, which crosses the rest on the under side, as indicated by the dotted red lines, and is attached to the box and the rest with the screws *m m*. There is a helical spring, *n*, on the under side of the rest, having one end fastened to the female-box, and the other to the rest I for the purpose of disconnecting the box from the screw B, and moving the lever back. *o* is a weighted lever so bent as to cross the under side of the sliding-rest and to catch against the lever *l* when drawn forward, and to hold the box in connection with the feeding-screw. This lever turns in the caps *p p* on the under side of the rest. There is a wedge or inclined plane, *q*, to lift the weighted end of the lever *o*, and liberate its opposite end from its hold upon the lever *l*, when the spring will move the box back from the screw and the slide rest will stop, and may then be shoved back upon the ways. J J′ are stout rings fixed to the slide rest and receive the log within them, and they also hold the cutting apparatus firmly and present the cutters at such points on the log as may be required. K is the main cutter, and is mounted adjustably on such ring, so that by slackening the bolts *r r*, which extend through the slots *s s*, in its ends, (see fig. 2,) I can shift either end inward or outward to change the plane of the knife or cutter K. This knife is to pare the shaving or body of the basket from the log, and its edge should be made crooked to correspond with the inside surface of the lower end of the same, so as to lock into the groove in the bottom, L, of the basket, (see fig. 5.) This knife has a supplementary knife, M, attached to it, of proper form to cut the rebate *u*, (see fig. 5,) at the lower edge and on the outer surface of the shaving to receive the annular ring on the outside of the groove *v* in the bottom of the basket. N is an adjustable cutter attached in the ring J′, (see its form, fig. 2,) which acts on the log in advance of the main cutter and squares the lower edge of the shaving. O is a crooked adjustable cutter in a recess in the ring J, fastened by a bolt, *w*, its use being to pare the log in advance of entering the ring, (see fig. 3.) P is a corresponding cutter attached in a recess in ring J′, for the purpose of fitting the core after cutting a tier of shavings from the log for a smaller-sized ware. P′,

(see fig. 2,) is a cutter attached to the ring J for the purpose of forming the exterior surface of the head of the basket. *q* is a wheel or skeleton, conical in form, and carried in adjustable boxes *x x* in the projections of the rings J J′, and is made fast with the bolts and nuts *y y*, and is adapted to roll on the surface of the log by the friction produced by their contact. This wheel carries a rigid knife, R, which, at each revolution of the wheel, is sunk into the surface of the log in advance of the knife or main cutter K, to a depth equal to the thickness of the shaving to be cut off; by which means a longitudinal division is made in the shaving, and as soon as the wood at this point has reached the main cutter the shaving is completely divided and falls from the machine. For making baskets to contain fruit requiring ventilation, I produce holes near the bottom with the U-shaped cutters Z, which cut into the log through the thickness of the shaving to be pared off, so that when the main cutter pares off the shaving the wood within the scores drops out. The condition of the shaving in this respect, when made up into a basket, is represented in fig. 4. It will be understood that different-sized logs may be cut in the same manner by attaching different-sized rings and cutting apparatus to the sliding rest of the same machine.

Operation.

Having suspended a properly steamed log, T, between the head and tail centres, and applying power to the pulley C, and having connected the box in the slide rest to the feeding-screw B, and by pulling forward the lever *l*, it will be seen that the log will revolve, whilst the rings holding the cutting apparatus will be drawn forward gradually over the log from the tail centre to the head centre, and that the cutters made stationary on the rings will give form to and pare off a shaving of proper form by helically cutting around the log from one end to the other, whilst it will at the same time be divided into proper lengths by the rigid knife R, and scored by the U-shaped cutters Z to produce ventilation; so that the shavings by slightly springing from a helical to a direct circular form, and properly fastening them at the top, will produce or constitute conical ventilated basket bodies, such as my machine makes, and such as is represented in fig. 4. where it is represented with the bottom on. To produce tobacco covers the same operation of the machine is requisite, as a tobacco cover is nothing more or less than the body of a basket cut and fastened at the top with a clasp, as if to be used for a basket body without the ventilating openings at the bottom.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows:

1. I claim the two parallel rings J J′, enclosing the log and traversed along as the work proceeds, and carrying the cutting apparatus, substantially in the manner herein set forth.

2. I claim, in combination with a machine cutting conical spiral shavings, the knife R carried on a rolling device as represented, and adapted to measure off and cut uniform length of such shaving, as herein specified.

3. I claim cutting holes or slots in the bodies of baskets made from shavings, by means of the cutters Z, or their equivalents, arranged and operating as specified.

4. I claim the supplementary cutters M and N, arranged and operating as and for the purpose herein specified.

In testimony whereof I have hereunto set my name in presence of two subscribing witnesses.

HENRY MELLISH.

Witnesses:

FREDERICK VOSE,

JAS. W. MELLISH.