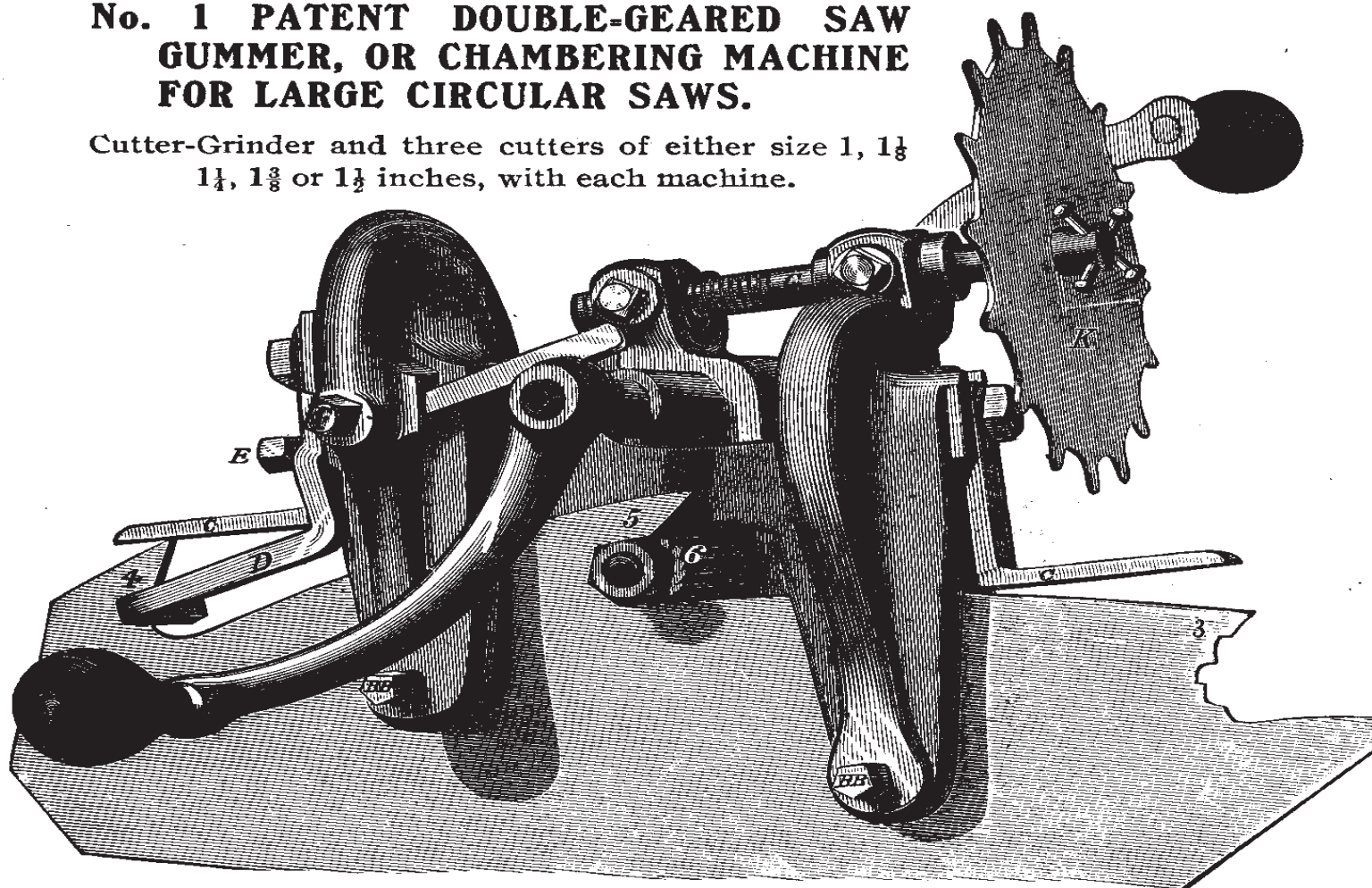


No. 1 PATENT DOUBLE-GEARED SAW GUMMER, OR CHAMBERING MACHINE FOR LARGE CIRCULAR SAWS.

Cutter-Grinder and three cutters of either size 1, 1½, 1¾ or 1½ inches, with each machine.



DIRECTIONS FOR USING.

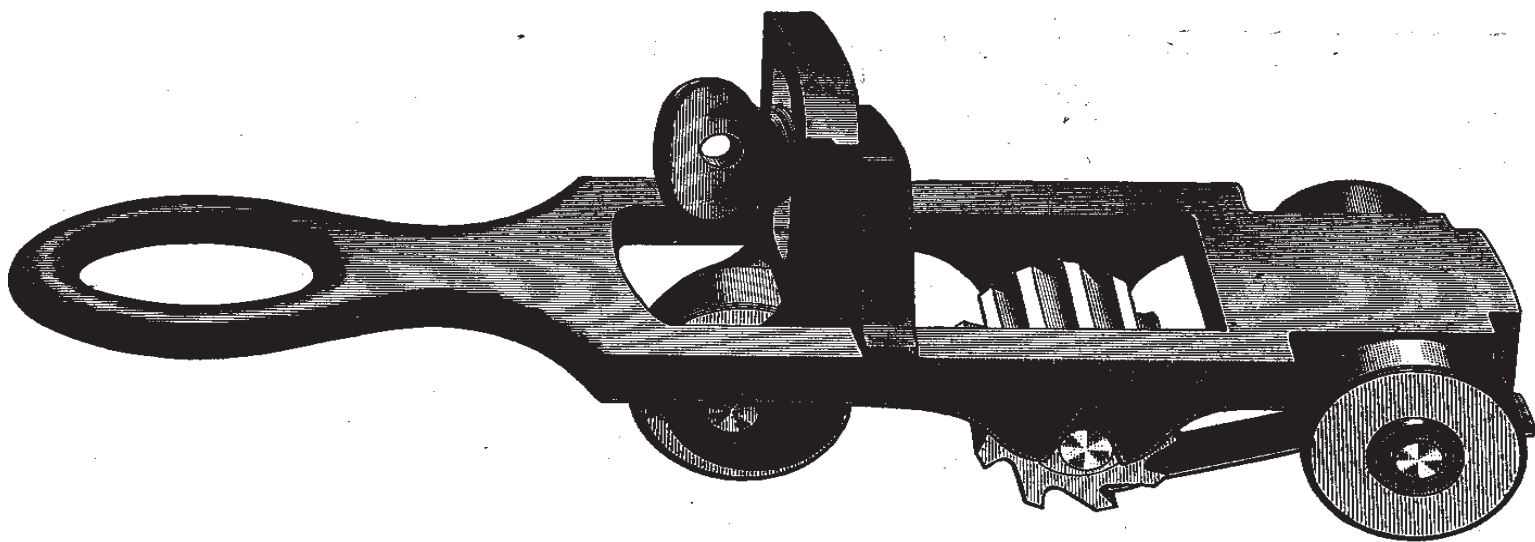
Before using the gummer see that the oil holes are clear. A few drops of oil will be sufficient for from three to five hours' use. After using the gummer remove the chips or turnings that accumulate back of the cutter. If allowed to remain they will cause trouble by getting into the working parts of the machine. Run the cutter back by means of screw *G* as far as necessary. Then place the machine on the saw, with the cutter close up in the chamber of the tooth to be gummed.

If the teeth are regular and the same distance apart, start the cutter in any chamber; but if they are irregular, make them even by commencing in the smallest tooth. After gumming the saw a few times the teeth must become regular. *E* is a set screw to regulate the depth of gullet. Fasten the machine to the saw by means of the screw *BB*, and proceed to gum the first tooth, one of the points of the star being struck at each revolution by a projection on the handle the cutter is steadily fed in until arrested by set screw *E*. Remove the machine to the next tooth, after having run the cutter back and proceed as before until all the teeth are gummed. Should the gullet or chamber be worn smooth, and the cutter fail to bite, rough the gullet with a file. The cutter is so arranged as to slide on its axis, and when one portion becomes dull, by removing a washer from back to front, a new sharp cutting surface will be presented, so continuing to change the washers until the whole face of the cutter becomes dull.

To take the cutter off the shaft, put the pin, hanging to the gummer, in the hole in the ratchet wheel, to keep the shaft from turning while unscrewing the nut, which has a left-hand thread. The hand wheel on end of feed screw, outside of the star, is to allow the operator to feed easily and gently with the hand when starting in to cut rough gullets, until the cutter gets a bearing, when by tightening the jam-nut on opposite side of star, the machine is made self-feeding. The ratchet by which the cutter is moved, effectually prevents any back motion, which has hitherto been a serious objection.

This gummer is a most invaluable machine, and should be in the hands of every mill-man. It saves power, files and time, and is so simple in its mode of operation that any one of ordinary intelligence can be taught to use it. We pronounce this the best gummer ever manufactured.

CUTTER GRINDER FOR HOLDING THE CUTTER OF CHAMBERING MACHINE IN POSITION DURING PROCESS OF SHARPENING.



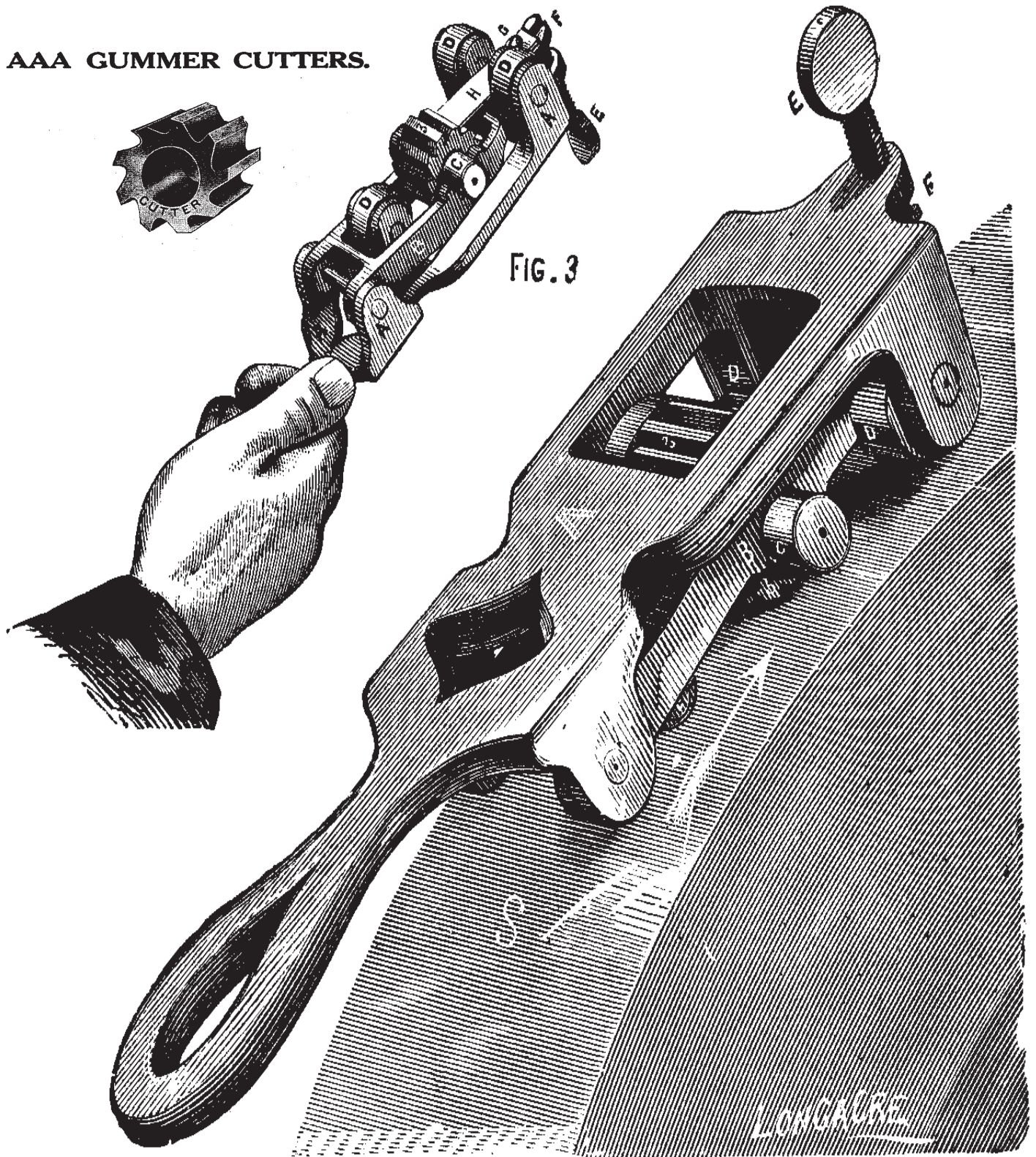
TO GRIND THE CUTTERS

the stone should have a perfectly straight face and turn from the operator. Lower the adjustable frame of grinder until the cutter touches the stone, then adjust spring in proper position. When properly adjusted, the backs of teeth of cutters can be ground so the cutting edge will be a little the highest and the cutters round and sharp.

Furnished with either No. 1, 2 or 3 (Pin) shaft..

DEVICE FOR HOLDING THE CUTTER OF CHAMBERING MACHINE IN POSITION DURING THE PROCESS OF SHARPENING.

AAA GUMMER CUTTERS.



A is the main frame; D, the rollers; B, the adjustable frame; 3, the cutter; C, the cutter shaft; E, F, the screw for regulating the adjustable frame B; G, the screw for tightening spring H, which holds the cutter 3 in a proper position while grinding; S is the grindstone. The stone should have a perfect straight face and run through in the direction of the arrow. In using this machine care should be taken to hold it in line with stone. Screw the adjustable frame (which can be adjusted to any pitch) down till the cutter touches the stone; then see if the cutter is in its proper position; if not, it can be adjusted by spring H, by moving the spring either backward or forward.