C. B. SPRAGUE.

SAWMILL HOG.

APPLICATION FILED JUNE 13, 1922.

1,436,208.

Patented Nov. 21, 1922.

FIG. 1

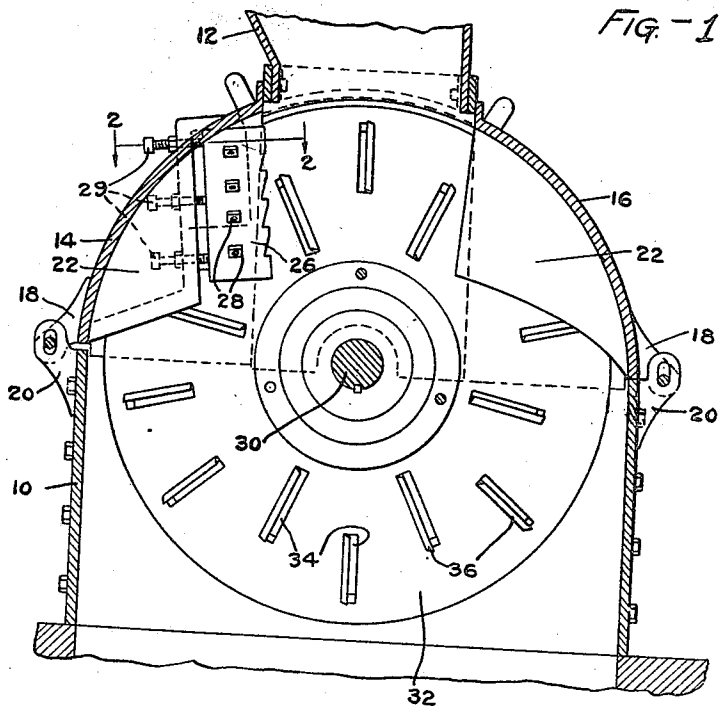
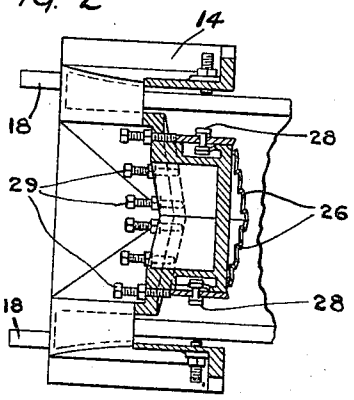


FIG. 2



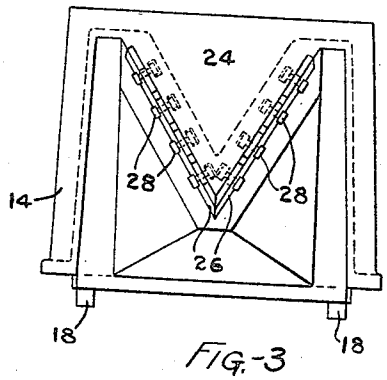


FIG. 3

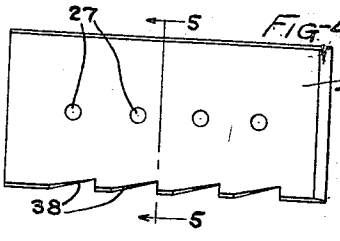


FIG. 4

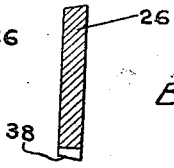


FIG. 5

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UNITED STATES PATENT OFFICE.

CHARLES B. SPRAGUE, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR TO DIAMOND IRON WORKS, OF MINNEAPOLIS, MINNESOTA, A CORPORATION.

SAWMILL HOG.

Application filed June 13, 1922. Serial No. 567,915.

To all whom it may concern:

Be it known that I, CHARLES B. SPRAGUE, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Sawmill Hogs, of which the following is a specification.

My invention relates to saw mill hogs, and an object is to improve the machine shown and described in Letters Patent of the United States No. 777,779, issued December 20, 1904. An object in particular is to provide a machine which will cut material, such as refuse lumber, into chips without the production of slivers or long pieces.

The full objects and advantages of my invention will appear in connection with the detailed description, and the novel features embodied in my inventive idea will be particularly pointed out in the claims.

In the accompanying drawings, Fig. 1 is a vertical longitudinal sectional view of the machine. Fig. 2 is a view in horizontal section on the line 2—2 of Fig. 1. Fig. 3 is a detail view in elevation. Fig. 4 is a face view of one of the knives. Fig. 5 is a view in section on the line 5—5 of Fig. 4.

As shown in the drawings, I provide a casing 10 for the machine, the sides of which extend upwardly and support a feed hopper 12. The front and rear of the casing are provided with segmental doors 14 and 16 having ears 18 on their lower sides which are hingedly attached to lugs 20 on the casing, thus permitting the doors to be opened. Both of the doors 14 and 16 are bulged laterally inward at their intermediate portions as indicated at 22 and the door 14 is provided with an upwardly diverging V-shaped anvil block 24 which projects into the casing of the machine. A pair of divergently positioned anvil knives 26 are adjustably secured to the diverging faces of the anvil block by means of bolts 28 which pass through holes 27 in the knives. These knives are engaged at their rear edges by adjusting screws 29 which hold the knives projected beyond the anvil block any desired distance and by means of which wear of the knives may be conpensated. As will be seen by reference to Figs. 1 and 2 the screws 29 screw through threaded openings in web portions of the anvil door 14. A shaft 30 extends transversely through the casing of the machine and secured to this shaft is a cutter head consisting of a pair of similar disks 32 which are so disposed as to diverge from each other as they extend away from the shaft in the manner shown in Patent No. 777,779 previously referred to. These disks constitute a cutter head having a V-shaped or outwardly diverging channel into which the stock or refuse will be delivered from the feed hopper 12. The anvil block 24 and the knives 26 carried thereby project into said V-shaped channel and the cutter edges of said knives when properly adjusted lie close to the diverging surfaces of the disks 32. These disks are provided with a plurality of radial slots 34 preferably arranged in staggered relation and through which project the cutting edges of knives 36 which are secured to the disks in the manner disclosed in the aforementioned patent. The cutting edges of the knives 26 are provided with lateral beveled and longitudinally inclined teeth 38 which constitute an essential feature of the invention. In the use of the machine when a piece of wood is caught between the teeth 38 and one of the knives 36 on the rotating disks the cutting is performed gradually with a drawing action, thus producing a clean cut and avoiding the production of slivers or long pieces. The fact that the inclined teeth result in the production of shoulders causes the wood to be cut cleanly before it is given an opportunity to pass below the lower ends of the anvil knives.

I claim:

1. A saw mill hog comprising a casing, a V-shaped anvil block in said casing, a pair of divergently positioned knives secured to said anvil block, said knives having laterally beveled longitudinally inclined cutting

teeth, and a cutter head rotatably mounted in said casing, and carrying knives cooperating with said anvil knives.

2. A saw mill hog comprising a casing, a door for said casing, a V-shaped anvil block carried by said door, a pair of divergently positioned knives secured to said anvil block, means for adjusting said knives in the planes thereof, said knives having laterally beveled longitudinally inclined cutting teeth, and a cutter head rotatably mounted in said casing and carrying knives cooperating with said anvil blocks.

In testimony whereof I hereunto affix my signature.

CHARLES B. SPRAGUE.