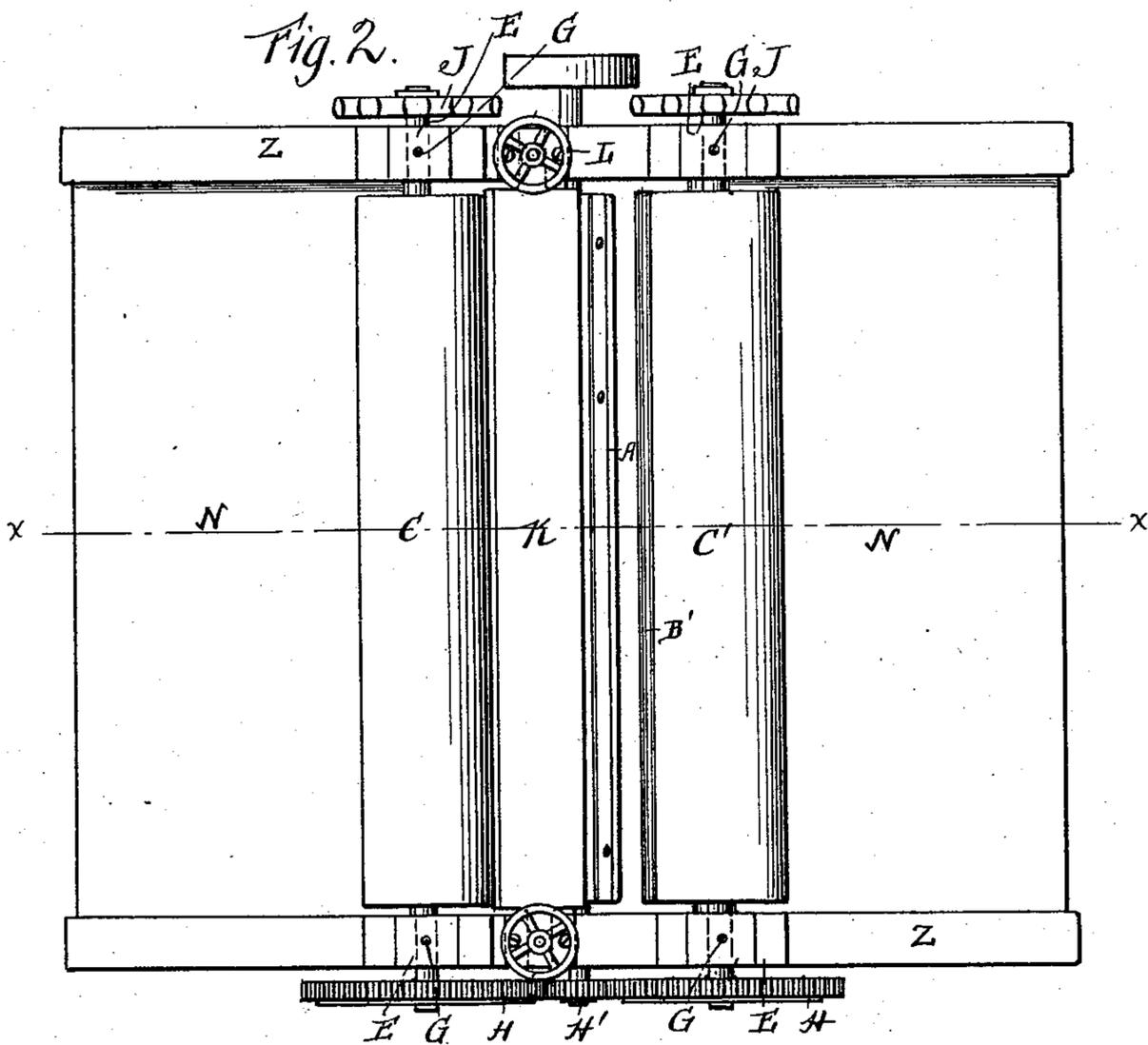
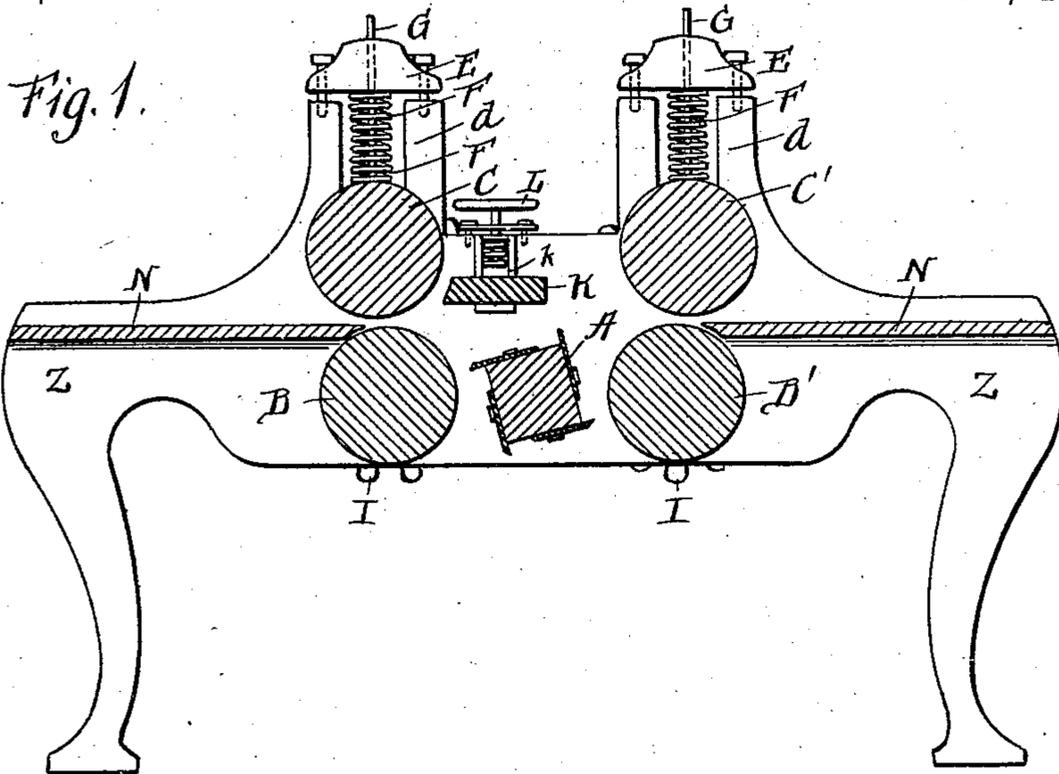


W. J. PUGH.
SHINGLE PLANING MACHINE.

No. 534,173.

Patented Feb. 12, 1895.



WITNESSES:

Geo. M. Anderson
Philip Masini

INVENTOR:

W. J. Pugh,
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Fig. 3.

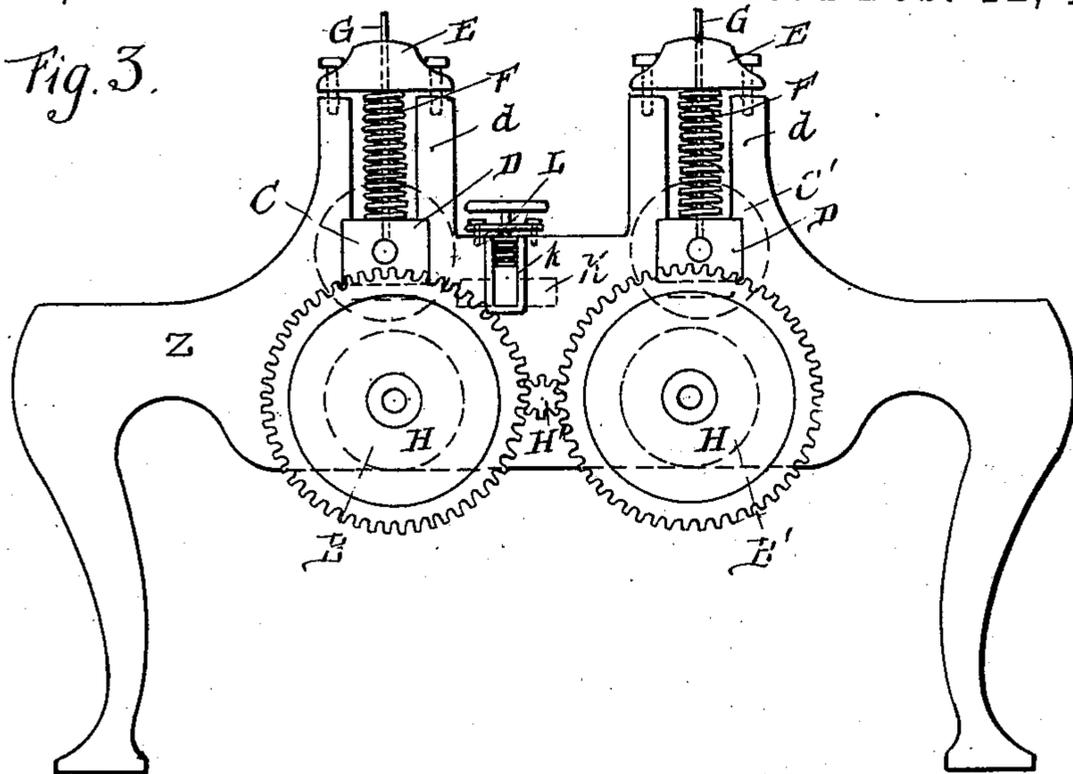
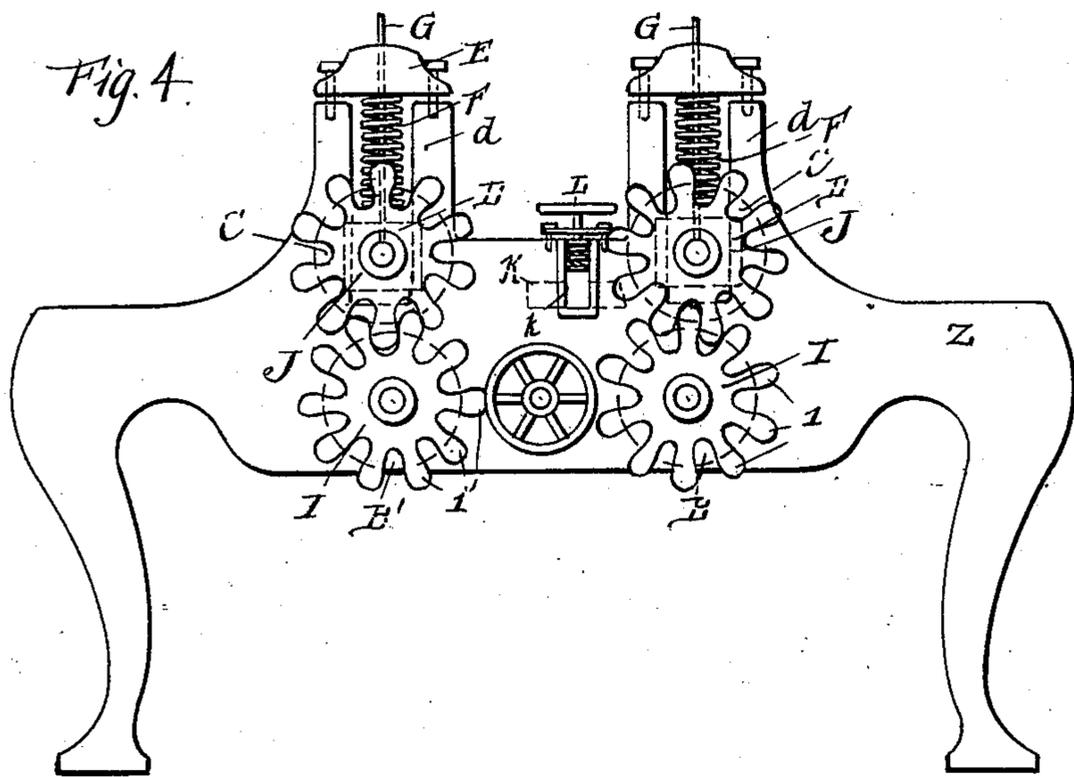


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM J. PUGH, OF KINROSS, IOWA.

SHINGLE-PLANING MACHINE.

SPECIFICATION forming part of Letters Patent No. 534,173, dated February 12, 1895.

Application filed June 27, 1894. Serial No. 515,851. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. PUGH, a citizen of the United States, and a resident of Kinross, in the county of Keokuk and State of Iowa, have invented certain new and useful Improvements in Shingle-Planing Machines; and I do 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a section on line $x-x$, Fig. 2. Fig. 2 is a plan view of the invention. Fig. 3 is an elevation of one end of machine. Fig. 4 is an elevation of opposite end of machine.

This invention has relation to certain new and useful improvements in shingle planing machines, and it consists in the novel construction and combination of parts, all as hereinafter described and pointed out in the appended claim.

The object of the invention is to provide a machine for planing shingles, simple in construction, and having feed devices arranged to adjust themselves to the thickness of the shingle, and provided with means for guiding the shingles to the proper movement as they pass to and from the planing cylinder, all as hereinafter set forth.

Referring to the accompanying drawings, the letter Z indicates the frame-work of the machine, at the central portion of which is journaled a transverse planing cylinder A, which is of the usual construction. Journaled parallel with said cylinder A, and in the same horizontal plane, one upon each side, are lower feed rolls or cylinders B B', whose diameters are substantially equal to the diameter of the circle described by the rotation of the planers.

Above each of the rolls B B', is a parallel roller C or C', the axis of the roller C being a little forward of the axis of the roller B, and the axis of the roller C' a little behind the axis of the roller B', the difference in each case being usually about equal to the diameter of the roller shafts, but which may vary somewhat from such arrangement.

The shafts of the upper rollers C, C' are each journaled in boxes D which are vertically

slidable in slotted arms d of the frame, said slots being usually closed at the top by removable caps E, between which and the boxes, and bearing upon the latter, are seated spiral springs F. Oil feed pipes G are usually provided which extend down through the caps, springs, and boxes, to the bearings. Upon one end of the shaft of each of the lower rollers B, B', is a large gear wheel H, both of these wheels being in mesh with a pinion H' on the end of the power shaft.

On the opposite end of each roller B B' is a gear wheel I formed with deep teeth or cogs, and which meshes with a corresponding wheel J, one of which is carried by each of the rollers C, C'. The depth and form of the teeth or cogs on these wheels I and J should be sufficient to permit the rollers C, C' to be raised at least three-fourths of an inch without destroying the driving connection.

K designates a guard plate which is designed to hold the butt ends of the shingles as they pass to the planer, and prevent their rising or throwing up after they leave the roller C. The ends of said plate are provided with tongues which rest in vertical slots k in the end portions of the frame, the vertical adjustment being effected by means of screws L.

As the shingles are fed along the table N they are caught by the rollers C and B, and are carried to the planer, the roller C yielding to the increasing thickness of the shingle. The roller C being in front of the roller B, as above described, prevents the shingle tilting down between the roller B and the planing cylinder. After passing the planer, the point of the shingle is caught between the rollers B', C', the latter roll being back of the former, as above described, which holds the butt of the shingle from tilting down into the planer. The two pairs of rollers are of course at such a distance from each other that the point of the shingle is caught by the rear pair before the butt is released by the first pair.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a shingle planing machine, the combination with the planing cylinder A, journaled below the table, of the forward feed rolls C and B, the roll C being journaled over, but slightly forward of the roll B, the back feed

rolls C', B', the roll C' being journaled over
but slightly back of the roll B', the vertically
adjustable spring-pressed bearings for said
rolls C, C', gear for positively driving all of
5 said rolls, and the transverse broad yieldable
guard K supported over said cylinder between
the lower portions of the rolls C, C', and
nearer the roll C than the roll C', and means

for adjusting the position and tension of said
guard, substantially as specified. 10

In testimony whereof I affix my signature
in presence of two witnesses.

WILLIAM J. PUGH.

Witnesses:

S. MORITZ,

E. G. WILSON.