No. 707,219. Patented Aug. 19, 1902.

W. F. EPPERSON.

GLUING MACHINE.

(Application filed Nov. 19, 1901.)

(No Model.)

Fig. 1.

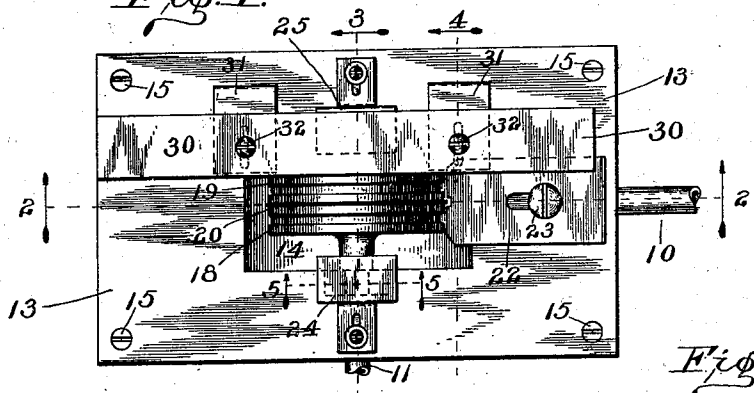


Fig. 2.

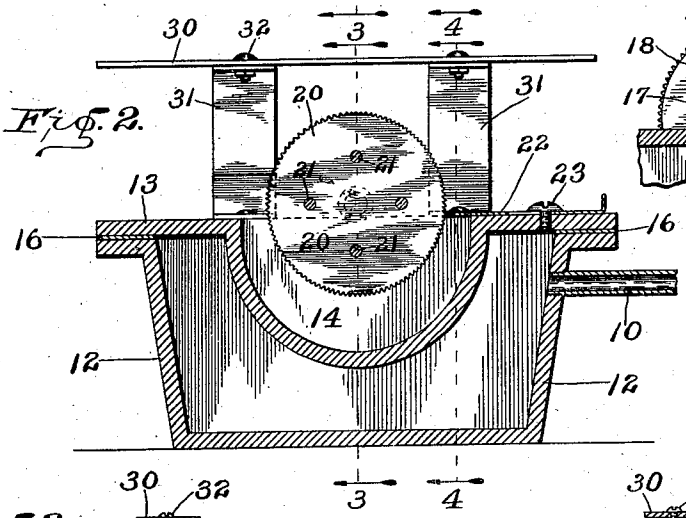


Fig. 5.

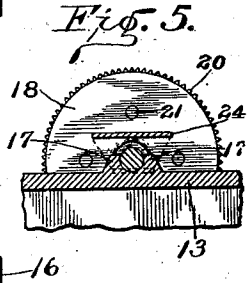


Fig. 3.

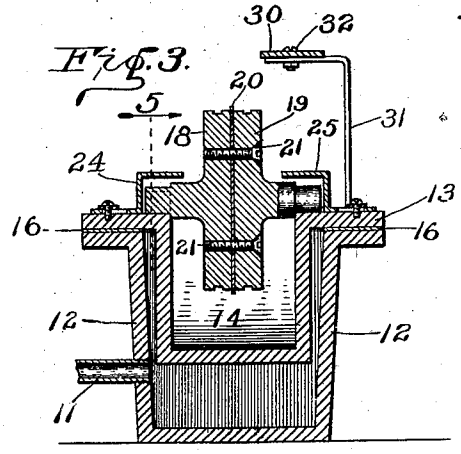
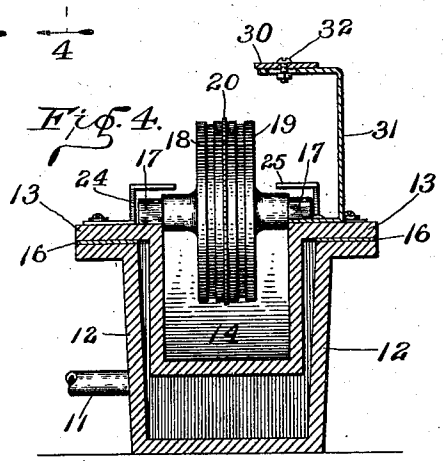


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIS F. EPPERSON, OF LADOGA, INDIANA.

GLUING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 707,219, dated August 19, 1902.

Application filed November 19, 1901. Serial No. 82,881. (No model.)

To all whom it may concern:

Be it known that I, WILLIS F. EPPERSON, a citizen of the United States, residing at Ladoga, in the county of Montgomery and State of Indiana, have invented certain new and useful Improvements in Gluing-Machines, of which the following is a specification.

The object of my said invention is to provide a simple and inexpensive gluing-machine by means of which glue may be rapidly, efficiently, and economically applied to the sides or edges of pieces which are to be glued together.

A machine embodying my said invention will be first fully described, and the novel features thereof then pointed out in claims.

Referring to the accompanying drawings, which are made a part hereof, and on which similar reference characters indicate similar parts, Figure 1 is a top or plan view of a gluing-machine embodying my said invention; Fig. 2, a longitudinal vertical sectional view of the same as seen when looking in the direction indicated by the arrows from the dotted line 2 2 in Fig. 1; Figs. 3 and 4, transverse vertical sectional views as seen when looking in the direction indicated by the arrows from the dotted lines 3 3 and 4 4, respectively, in Figs. 1 and 2; and Fig. 5, a detail vertical sectional view through one of the bearings of the gluing-wheel as seen from the dotted line 5 5 in Fig. 1.

My improved gluing-machine consists of a suitable receptacle for hot water, steam, or the like by means of which the glue is kept in a liquid condition to which steam or hot-water pipes 10 and 11 are preferably connected and which is composed of an outer shell 12 and a top 13, the latter of which contains a chamber 14 for the glue. The two parts 12 and 13 are secured together, preferably by screws 15, and a gasket or packing-strip 16 is interposed for the purpose of making a fluid-tight joint.

Resting on the top part 13 between suitable lugs 17 are the journals of the glue-applying wheel, which wheel is composed of the parts 18, 19, and 20. The two parts 18 and 19 are alike, each being a disk with a groove in its periphery, while the part 20 is preferably a thin plate of sheet metal, slightly larger in diameter than the parts 18 and 19, with its edge which projects beyond said parts toothed or serrated, and thus composed of or provided with a large number of fine sharp points. The three parts composing the wheel are secured together in any suitable manner, as by the machine-screws 21. This construction of this gluing-wheel I have found by practical use to be of very great importance. When the edge of a piece of lumber (or other part to be glued) is run over the edge of this gluing-wheel the fine teeth or points formed on the periphery of the part 20 enter said part sufficiently to prevent slipping and insure that the two surfaces—that of the wheel and that of the part being glued—shall move in unison, which insures the even application of the glue over the surface of the part being glued. The remaining portion of the surface of the gluing-wheel is smooth and true except that small peripheral grooves are formed therein, which as the lower edge of the wheel revolves in the body of liquid glue become filled therewith, thus bringing up a greater quantity of the glue than a perfectly-smooth-surfaced wheel would and insuring a sufficient supply to thoroughly unite the edges of the parts over which it is spread by means of this machine. An adjustable scraper 22 is provided by means of which any excess of glue is scraped off and forced back into the receptacle. This is shown as secured to the top 13 by means of a screw 23, which passes through a slot in the scraper and engages with a threaded hole in said top. Suitable shields 24 and 25 are secured to the top 13 near the ends of the gudgeons to the wheel and serve to keep the same from being accidentally thrown out of their bearings and also protect them from dirt.

At a suitable point above and to one side of the gluing-wheel I provide a guide 30, which is carried on standards 31. The upper ends of these standards (to which the guide is immediately secured) are slotted, and the guide is thus adjustable in relation to the wheel, accommodating the use thereof to parts having greater or less thickness or width, the adjustment being effected by suitable manipulation of the bolts 32.

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

1. The combination, in a gluing-machine,

of a suitable receptacle for the glue, and a gluing-wheel mounted to revolve in said receptacle and composed of disks, one of which is of slightly-greater diameter than the others and has a serrated edge, the points or teeth whereof are adapted to engage with the article being glued as the same passes over the wheel, whereby the surfaces are caused to move in unison, the periphery of said wheel being otherwise free of parts extending above its bearing-face, all substantially as set forth.

2. The combination, in a gluing-machine, of a suitable receptacle for the glue, and a gluing-wheel mounted to revolve in said receptacle and composed of three disks, the two side disks having circumferential grooves in their periphery but being otherwise smooth, and the central disk being of somewhat greater diameter than the side disks and having a serrated edge the points or teeth whereof are adapted to engage with the article being glued as the same passes over the wheel, whereby the surfaces are caused to move in unison, while a suitable supply of glue is distributed over said article on both sides of the point where thus engaged.

In witness whereof I have hereunto set my hand and seal at Indianapolis, Indiana, this 16th day of November, A. D. 1901.

WILLIS F. EPPERSON. [L. S.]

Witnesses:
C. S. FRYE,
ALBERT F. ZEARING.