

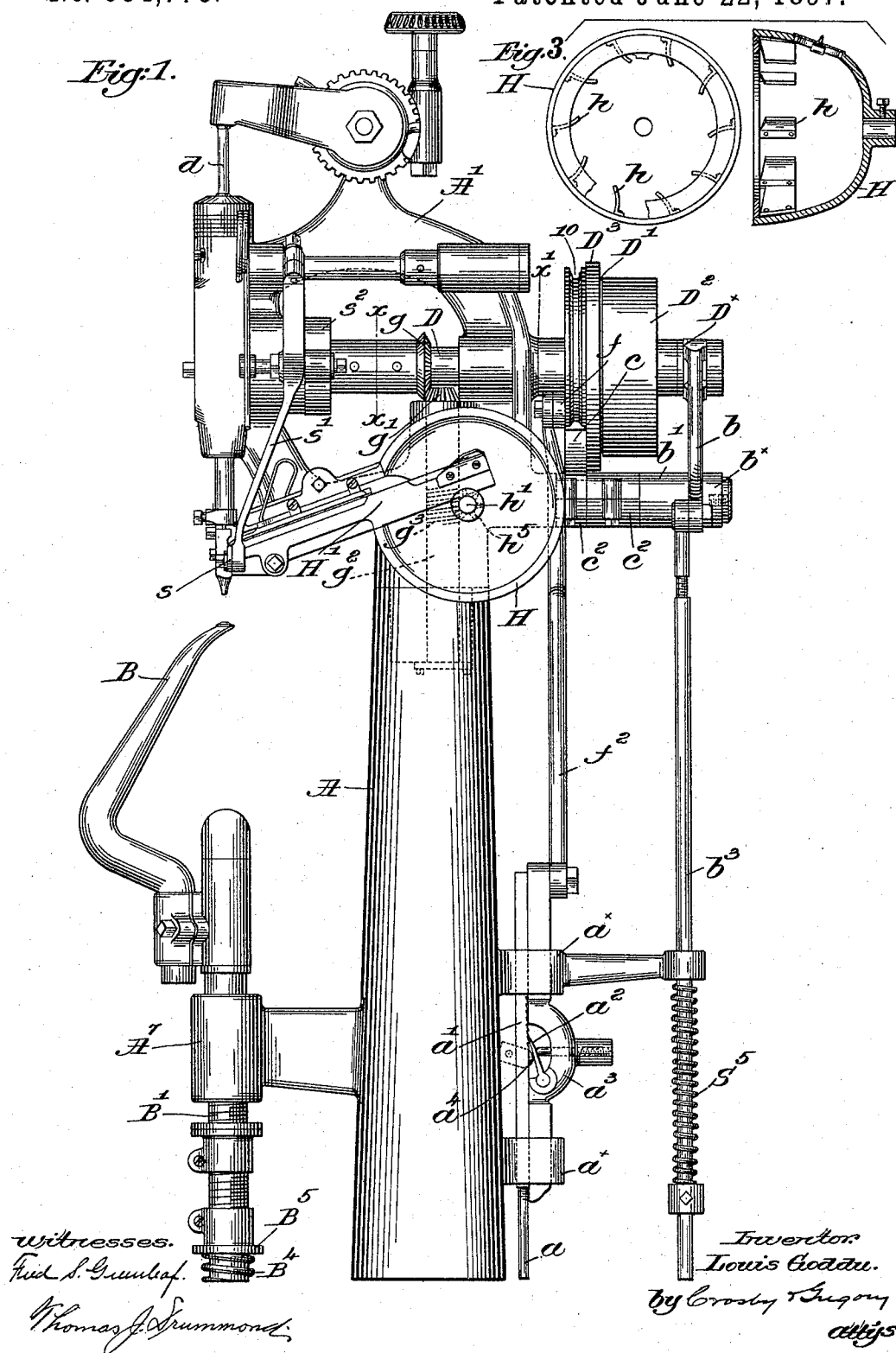
(No Model.)

2 Sheets—Sheet 1.

L. GODDU.
NAILING MACHINE.

No. 584,775.

Patented June 22, 1897.



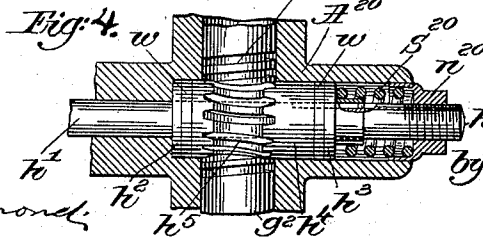
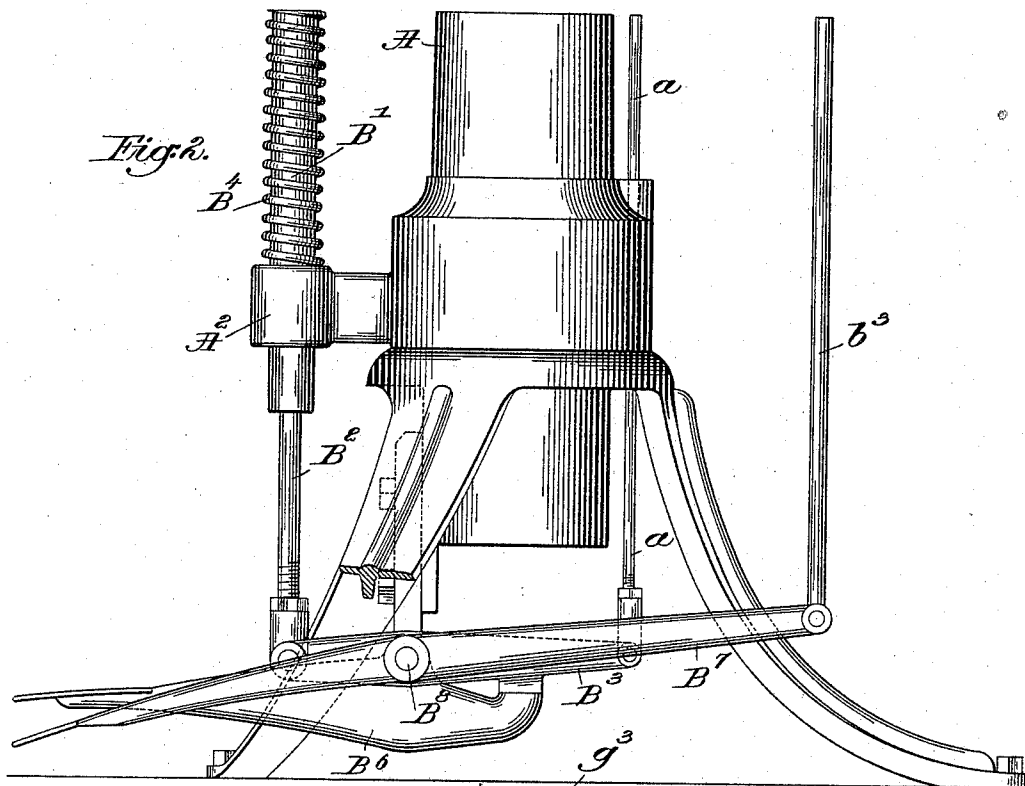
(No Model.)

2 Sheets—Sheet 2.

L. GODDU.
NAILING MACHINE.

No. 584,775.

Patented June 22, 1897.



witnesses.

Frederick S. Grummond.

Thomas J. Drummond.

Inventor
L. Louis Goddu.

by George S. Langdon

attys.

UNITED STATES PATENT OFFICE.

LOUIS GODDU, OF WINCHESTER, MASSACHUSETTS, ASSIGNOR TO JAMES W. BROOKS, OF PETERSHAM, AND FRANK F. STANLEY, OF SWAMPSCOTT, MASSACHUSETTS, TRUSTEES.

NAILING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 584,775, dated June 22, 1897.

Application filed December 18, 1895. Serial No. 572,573. (No model.)

To all whom it may concern:

Be it known that I, LOUIS GODDU, of Winchester, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Nailing-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention relates to that class of nailing-machines wherein the work is held upon a suitable horn and loose nails or fastenings are driven into the work by suitable nail-driving devices forming no part of this invention.

15 I have provided novel means for preventing breakage of the rotatable nail-hopper or its actuating mechanism should the hopper for any reason become jammed and its rotation stopped.

20 Figure 1 is a side elevation of the head and the upper part of the column or standard of a nailing-machine with my present invention applied thereto. Fig. 2 is a similar elevation of the base of the column and its attached mechanism for transmitting vertical movement to the horn. Fig. 3 is a front view with the cover removed and an axial sectional view of the hopper; and Fig. 4 is an enlarged detail view, partially in section, of the friction-coupling between the main driving-shaft and hopper-shaft.

25 The column or standard A, having mounted thereon a head A' of suitable shape to provide bearings for the operative parts, the main driving-shaft D, driver-bar $\bar{d}$, elevated thereby and spring-depressed, the separator-actuating arm s' therefor, controlled by a cam s^2 on the driving-shaft, and the horn or work-support B are all of well-known construction in nailing-machines, forming no part of this present invention.

30 The horn-shaft B' is prolonged by a rod B², jointed to a lever B³ and surrounded by a spiral spring B⁴, bearing at its lower end against a bearing A² on the column and at its upper end against an adjustable nut B⁵,

screwed on the rod B², supporting the horn in a yielding manner and lifting it toward the nose of the nailing mechanism when permitted to do so, as will be described.

35 The rear end of the lever B³ has jointed thereto a rod a , the upper part of which has formed thereon a rack a' , longitudinally movable in guides a^x on the column, the rack being engaged by a pawl a^2 on a pawl-carrier a^3 , which is maintained lifted throughout the greater part of every revolution of the main driving-shaft D, as will be described, to thereby, through rod a and lever B³, depress the horn B against the action of its lifting-spring B⁴ and maintain it depressed, the rack-and-pawl connection being as shown in United States Patent No. 265,227, to which reference may be had.

40 When the pawl-carrier a^3 is depressed, a cam-block a^4 disengages the pawl a^2 from the rack a' , releasing or permitting the spring B⁴ to act and raise the horn against the under side of the stock, pressing the latter against the nose of the nailing mechanism.

45 The operator can at any time depress the horn independently by means of a treadle B⁶, its rear end resting against the lever B³ back of its fulcrum, the horn-shaft B' being held in a bearing A⁷ on the column.

50 The driving-shaft D has fast thereon a cam-hub D', forming one member of a friction-clutch; the other clutch member D² being loose on the shaft and longitudinally movable thereon by a wedge D^x of well-known construction, the member D² being rotated continuously by a belt from any suitable source of power. (Not shown.)

55 The hopper H, having internal wings h , Fig. 3, to lift the nails or other fastenings and deposit them on the raceway H', is secured to a rotatable hopper-shaft h' .

60 Referring to Fig. 4, the hopper-shaft h' is shown as provided with a fixed collar or annular enlargement h^2 and a longitudinally-movable collar h^3 , splined to the shaft, and between the collars a sleeve h^4 , having worm-teeth h^5 , is mounted loosely on the shaft.

Between the ends of the sleeve h^4 and the two collars are interposed leather or other suitable friction-washers w , the shaft h' and parts mounted thereon having a bearing in a boss A^{20} of the head A' .

A cupped nut n^{20} is screwed onto the end of the hopper-shaft, and a strong spring S^{20} is interposed between the inner side of the nut and the collar h^3 , pressing it against the adjacent washer w , so that the sleeve h^4 is connected to the hopper-shaft by a friction-coupling to normally rotate therewith.

The main shaft D is provided with a bevel-gear g , in mesh with a similar gear g' on a worm-shaft g^2 , having a worm g^3 thereon in mesh with and to rotate the worm-sleeve h^4 .

Should the nails or fastenings in the hopper H jam or stop rotation thereof in any manner, the sleeve h^4 will rotate on the hopper-shaft, held from rotation, overcoming the force of the spring S^{20} , and there will be no breakage of the parts, as would be the case

if the worm-shaft g^2 were geared directly to the hopper-shaft.

The mechanism hereinbefore described is simple and effective and operates rapidly and accurately to perform the desired result.

I claim—

In a nailing-machine, an actuating-shaft, a worm-shaft geared thereto, a rotatable hopper, a hopper-shaft having a collar fast thereon, a spring-controlled collar loose on said shaft, and a worm-gear sleeved on the hopper-shaft between the fast and loose collars, in mesh with the worm-shaft and to normally rotate the hopper-shaft, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LOUIS GODDU.

Witnesses:

GEO. W. GREGORY,
EMMA J. BENNETT.