

No. 839,359.

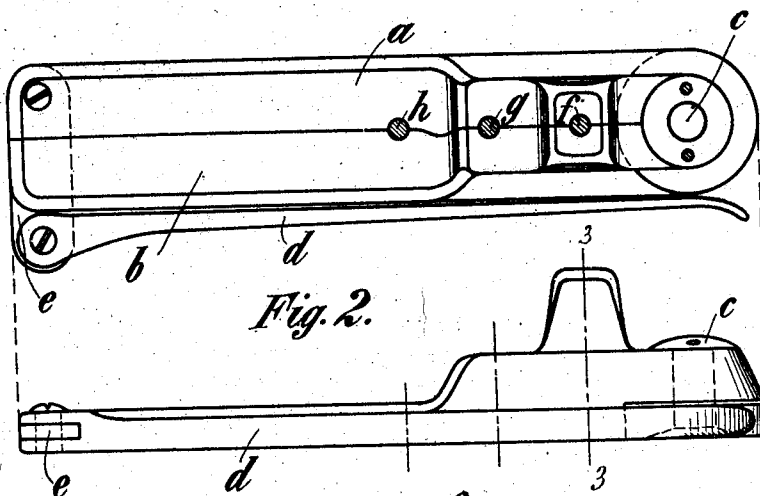
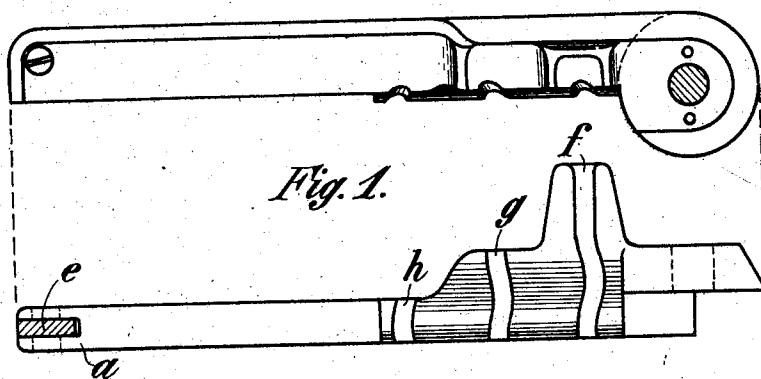
PATENTED DEC. 25, 1906.

M. ALEXANDRESCU.

IMPLEMENT FOR DRIVING NAILS ON A HELICAL LINE.

APPLICATION FILED DEC. 21, 1905.

2 SHEETS—SHEET 1.



Witnesses:
William Schuly.
Arthur Gump.

Inventor:
Michail Alexandrescu
by his attorney Hanko & Biesen

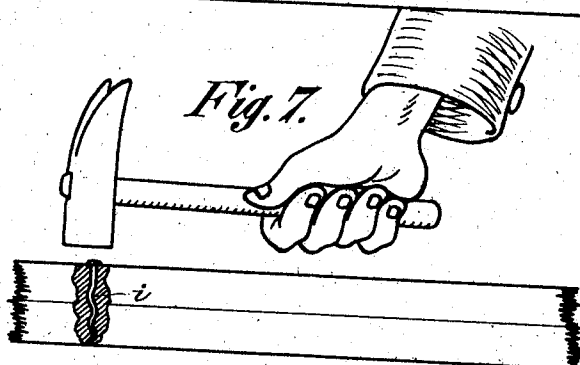
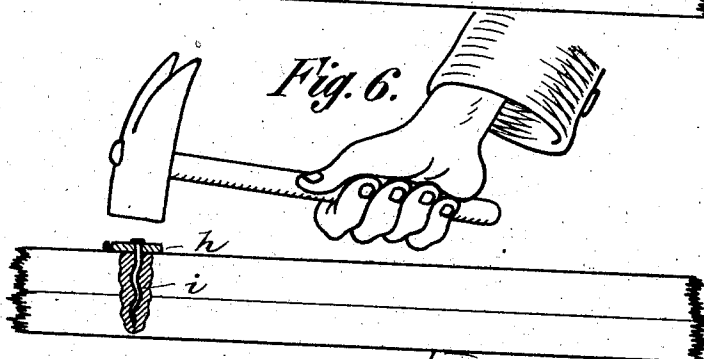
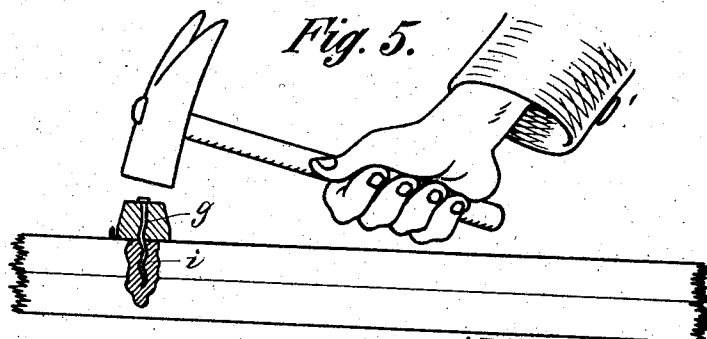
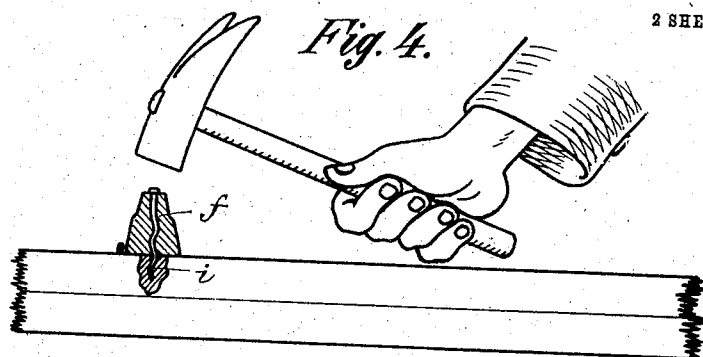
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2 SHEETS—SHEET 2.



Witnesses:
William Schuch
Adolph Munn

Inventor:
Michail Alexandrescu
by his attorney, Hans R. Biesse

UNITED STATES PATENT OFFICE.

MICHAIL ALEXANDRESCU, OF BUCHAREST, ROUMANIA.

IMPLEMENT FOR DRIVING NAILS ON A HELICAL LINE.

No. 839,359.

Specification of Letters Patent.

Patented Dec. 25, 1906.

Application filed December 21, 1905. Serial No. 292,881.

To all whom it may concern:

Be it known that I, MICHAIL ALEXANDRESCU, a subject of the King of Roumania, residing in the city of Bucharest, in the Kingdom of Roumania, have invented a certain new and useful Implement for Driving Nails on a Helical Line, of which the following is a specification.

This invention refers to an implement by means of which nails may be driven into wood in such a manner that they assume the shape of a helical line within the material, by which means a particularly solid and reliable union of the pieces to be united is obtained.

Upon the accompanying drawings the subject-matter of the invention is shown in Figure 1 in section, in Fig. 2 in plan view, and in Fig. 3 as a section on the line 3 3 of Fig. 2. Figs. 4, 5, 6, and 7 are elevations, partly in section, showing consecutive positions of the nail.

The implement presents substantially the form of a pair of tongs or pincers which comprise the two sections *a* and *b*. Both legs or sections are pivotally connected by a pin *c* and may be forced firmly against each other by means of the cam-lever *d* and by the latch *e*. Upon each of the legs there is mounted at *f* *g* and at *h* one section of a screw-like guide the bore of which is equal to the thickness of the nail which is to be driven in. As will be evident from Figs. 4-6 the two half-sections of, for instance, semicircular cross-section will unite to constitute screw-threads of full cross-section when the tongs are closed. The height of the pieces in which the said guides are provided is progressively decreasing, while their number is of course not limited.

When in use, the pair of tongs or pincers are laid upon the piece of work which it is desired to nail, and they are then forced together by means of the cam-lever *d* and then a nail *i* is driven into the longest guide *f*, Fig. 4. The nail is thus compelled to follow the convolutions of the guide and enters the wood on a helix or screw line. As soon as the head of the nail has reached the upper edge of the guide *f* the tongs are opened by releasing the cam-lever and swinging the latch *e* open, and then the tongs are secured in position, while the guide *g* surrounds the

nail, which is driven in as far as the guide will allow, Fig. 5. Then the last guide *h* is put around the nail, Fig. 6, and after the head of the nail has reached the guide the tongs are opened completely and the short end yet projecting from the piece of work is then driven home completely, Fig. 7. The nails which have been driven in in the manner described cannot be pulled out from the wood, and they can only be removed by screwing out by means of special tools, so that they are particularly adapted for unions which are intended to remain solid once for all. The screw-nails are superior to the ordinary nails the action of which is based on friction alone, as well as to the wood-screws and studs, which do not constitute any absolutely reliable union and which can be easily loosened by unauthorized persons. Experience has shown that when such nails are driven into a fissure they will contract the fissure. Hence they are applicable, for instance, in the case of board walls and partitions in place of the union by tongs and grooves and for railroad-sleepers in place of the *o*-shaped fillers heretofore employed for the purpose of preventing splitting of the sleepers.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. A nail-driving tool provided with a helical nail-guide, substantially as specified.

2. A nail-driving tool composed of a pair of jaws provided with complementary sections of a helical nail-guide, substantially as specified.

3. In a nail-driving tool, a pair of pivoted jaws provided with complementary sections of a helical nail-guide, combined with means for closing the jaws, substantially as specified.

4. A nail-driving tool composed of a pair of jaws each provided with a section of a sinuous nail-guide, substantially as specified.

5. A nail-driving tool composed of a pair of jaws each provided with a series of sections of sinuous nail-guides, said sections being of different heights, substantially as specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

M. ALEXANDRESCU.

Witnesses:

J. W. RIDDLE,
M. GROMAR.