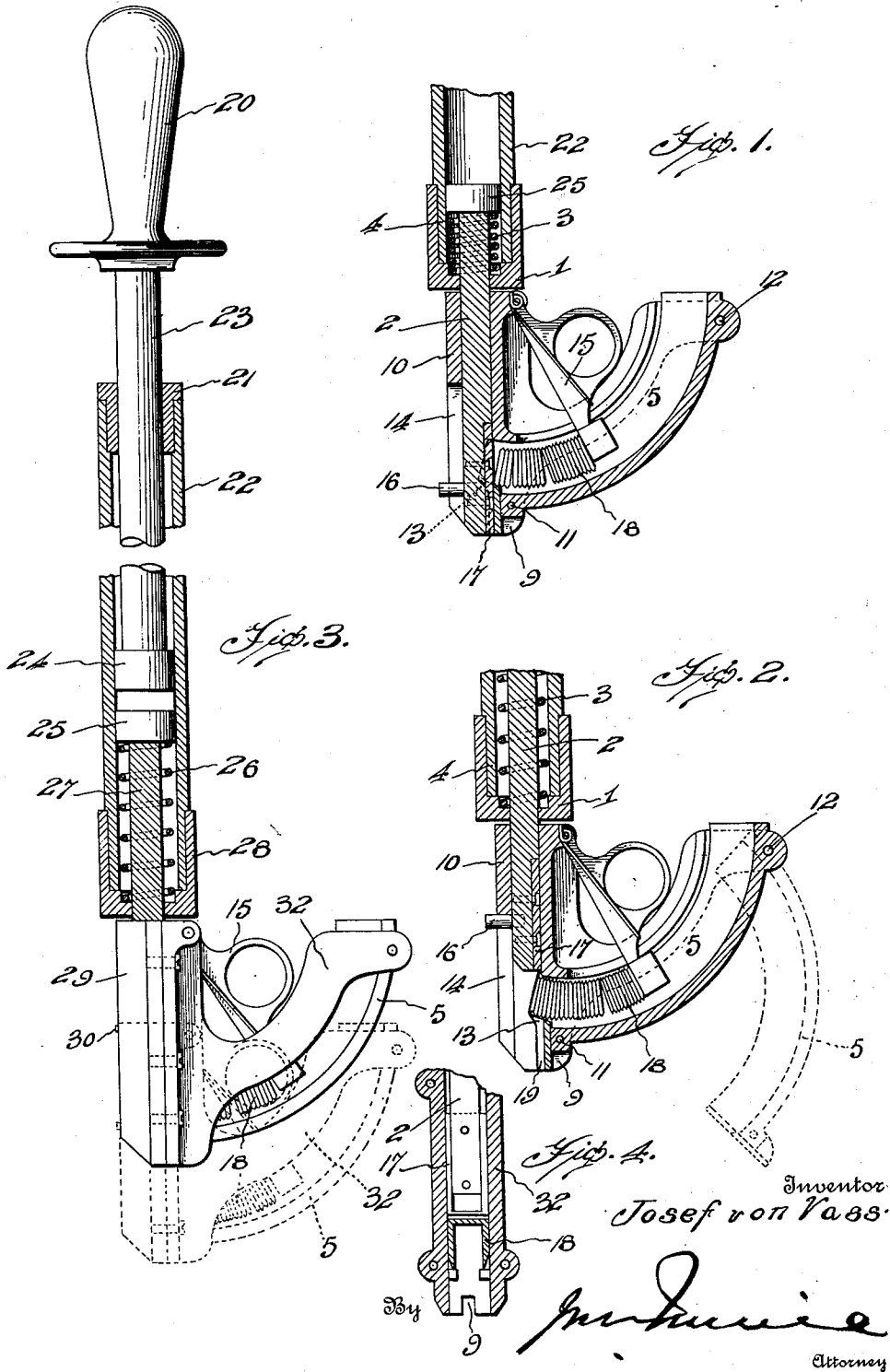


J. VON VASS.
 NAILING APPARATUS.
 APPLICATION FILED JUNE 21, 1915.

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JOSEF VON VASS, OF CHARLOTTENBURG, GERMANY, ASSIGNOR TO GARRETT D. COOPER,
OF NEW YORK, N. Y.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEF VON VASS, a subject of the King of Hungary, and resident of Charlottenburg, Germany, have invented certain new and useful Improvements in Nailing Apparatus with Automatically Working and Controlled Feeding Device, of which the following is a specification.

The present invention relates to a nailing apparatus and more particularly to that kind of apparatus intended for instance for connecting together the free ends of a belt with the object of making the latter endless, for nailing facings or the like ornamental bodies on walls, ceilings and the like and the novelty of the improved apparatus consists in that the feeding of the fixing devices, as for instance wire staples, from the supply chamber, is automatic and controlled by a particular feed controlling mechanism, and in that the staples are arranged within the supply chamber in such a manner that the position of any staple cannot be changed with respect to that of the remaining staples, whereby the apparatus may work indifferently in an upward, downward or in any lateral direction.

A further improvement of the apparatus according to the present invention consists in that the striking member is not rigidly connected with the apparatus proper, whereby no staple can be operated involuntarily by the striking member, so that the operator is not exposed to injury.

A still further improvement of the apparatus according to the invention consists in that the staple supply chamber is of curved shape, whereby the apparatus is able to work in any corner and may be opened and cleaned by withdrawing one single pin.

Another improvement in the nailing apparatus according to the present invention consists in providing the wall of the guiding duct, through which the staple is expelled, with a doubly beveled hollow just in front of the supply chamber, whereby the entrance of the staple into said guiding duct and the severing of the same staple from the remaining staples are secured.

Finally, a still further improvement consists in that, at the base part of the apparatus, which is applied and pressed against the facing or body to be nailed, is provided a notch, or groove. When a lat-

tice work, for instance, is to be nailed by means of the apparatus, the latter is applied against the lattice in such a manner that the wire of the lattice engages the said groove, whereby any slipping of the apparatus is prevented and a positive working is secured.

My invention is illustrated in the accompanying drawings, in which:

Figure 1 is an axial section of the apparatus, the working member being shown in its lowered position. Fig. 2 is a similar section, the working member being in its raised position, at the instant a staple enters the guiding duct. Fig. 3 shows the same apparatus provided with a percussion device. Fig. 4 is a sectional view at an enlarged scale of the lower end portion of the apparatus, with an inserted staple.

The various juxtaposed staples or the like fastening means 18 are conveniently soldered together by their top parts and disposed upon a guiding bar 5. A continuous pressure is exerted on the staples, engaged in a duct 19, by means of a spring actuated lever 15, in such a manner that the first staple is pressed outward and beneath the pushing member 2 and that only one staple assumes such position. On the pushing member 2 is secured a cutting blade 17, by means of which the soldering material connecting the various staples, is cut during the downward stroke of the member 2.

As shown in Fig. 2, a coil spring 3 forces the pushing member 2 upward after each operation, thereby permitting the spring actuated lever 15 to push the first of the staples 18, engaged on the guiding bar 5, beneath the cutting blade 17 of the member 2 slidably mounted within the sleeve 10. A pin 16, operating in a slotted portion 14 of the sleeve 10, assists in guiding the member 2.

The staple supporting bar 5 is of curved shape and the staples supported on said bar, when entering the guiding duct 19, should assume an inclined position, whereby the free ends of same should project into the said duct and strike the wall of the guiding sleeve 10. The upper back or bridge part of the staple cannot, in such conditions, assume the correct position just beneath the cutting edge 17 which is intended to sever the first staple from the juxtaposed staple. In such conditions the staple, during the downward stroke of member 2, would not

be severed nor driven into the body to be nailed, but the whole row of staples 18 would be shifted back within the channel 5. In order to avoid such a drawback and to secure a positive working, a notch 13, having an angular wall, is provided at the lower end of the guiding sleeve 10, as clearly shown in Figs. 1 and 2. The two prongs of the fork shaped staple freely enter said notch 13 whereby the staple is inclined with respect to the direction of the guiding duct 19. Now when the member 2, together with the blade 17, is pushed downward, the blade severs the staple placed in an aligned position within the notch 13, and, owing to the angular wall of said notch, the points of the staple slide on the lower inclined portion of the said wall until the staple is again in a vertical position and pursues its way through the guiding groove 19 under the action of the member 2 which forces the staple into the body to be nailed.

When a lattice work is to be nailed by means of the above described apparatus, the latter is conveniently engaged on the fastening wire of the lattice, by means of a groove 9 provided at the lower edge of the apparatus (Fig. 4). The wire being engaged into said groove, the apparatus may be applied against the lattice, whereby any slipping of the apparatus is prevented and a positive working is secured.

The above arrangement has a further advantage: Staples having prongs made from very slender wire may be driven into the body to be nailed without being exposed to bending.

In the constructive form shown in Fig. 3, a percussing or striking member is loosely connected with the lower portion of the apparatus. Owing to said percussing member, strong staples or the like fastening means may be applied, without the necessity of making use of engine power.

The apparatus works in the following manner: The operator grasps the sleeve 22 and applies the apparatus at the desired spot against the body to be nailed; he withdraws the rod 23 from the sleeve 22 by operating the handle 20 and throws it back against the piston or head 25 of the striking rod 27, whereby a staple is severed from the row of staples and driven into the body to be nailed. In this latter constructive form the percussing device is also loosely connected with the apparatus proper by means of a coil spring 26 interposed between piston 25 and apparatus 29. The sleeve 22 only serves as a guide for the piston 25 of the striking member and for the piston 24 of rod 23. For preventing the latter from falling off, the sleeve 22 is provided with a hollow cover 21 which limits the motion of piston 24.

The advantage of this form of the implement lies in the fact that in case the handle 20

is accidentally struck the only result will be a downward movement of the whole staple magazine and correlated parts, as shown in dotted lines in Fig. 1. If the handle were not indirectly connected to the member 27 through the medium of the sleeve 22, as now illustrated, an accidental blow upon the plunger 27, or a part directly connected thereto would cause the expulsion of a staple and perhaps cause injury to the workman. Thus it is obvious that the magazine and correlated parts must be held solidly as for instance against a board before a blow on the handle will succeed in driving a staple from the holder.

It is understood that the accompanying drawing is only given by way of example, for illustrating the invention, and that any other constructive form showing the above mentioned arrangements is included in the scope of the invention.

The supply chamber may be readily filled with staples by raising the member 15. The staples are not loosely engaged on the bar 5, but they form a rigid whole and the relative position of same cannot be varied. Owing to such feature, the apparatus may be used in any position and is able to work, whatever may be its position. No previous apparatus shows such feature and for this reason they are of no practical use. Furthermore the apparatus may be readily opened and cleaned. The pin 11 is removed and the arm 5 is rotated around the hinge bolt 12, as shown in dotted lines in Fig. 2, after which the dust and the like may be removed readily and quickly, without the use of any particular tool.

Having now fully described my said invention, what I claim and desire to secure by Letters Patent, is:

1. An implement of the character described including a body member which is provided with a channel, a magazine for holding a plurality of connected staples and for directing a staple into the channel, and a driving member operating in the channel, said body member having disposed opposite the delivery end of the magazine an inclined face, to receive the tines of the initial staple and hold the same in a position which is slightly inclined with respect to the plane of the channel, and a second inclined face on the body member for leading the tines of the staple back to the plane of the channel while the staple is being driven home.

2. An implement of the character described including a staple driving member, a magazine for holding a plurality of connected staples, and a staple positioning member located adjacent the delivery end of the magazine, said positioning member being provided with an inclined portion for receiving the tines of the initial staple in a position which is slightly inclined with re-

spect to the direction of movement of the driving member, said positioning member having an inwardly inclined face for directing the tines of the staple back toward a plane which is coincident with the plane of movement of the staple driving member.

3. An implement of the character described including a body member which is provided with a magazine and with means for positioning a staple so that it may be driven from said body member, a driving element having an anvil head and slidably mounted in said body member, a cylindrical member in which said anvil head is arranged to slide, a cap on the end of the cylindrical member adjacent the body mem-

ber, said cap having an opening through which the shank of the driving element passes, a resilient member within the cylindrical member and disposed between said cap and the anvil head, a rod slidably mounted in the cylindrical member and provided with a hammer head adapted to engage the anvil head, and a handle on the end of the rod.

In testimony whereof I have hereunto set my hand in presence of two witnesses.

JOSEF von VASS.

Witnesses:

WOLDEMAR HAUPT,
HENRY HASPER.