

(11) EP 2 039 478 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:

25.03.2009 Bulletin 2009/13

(51) Int Cl.: **B25C** 1/02^(2006.01)

(21) Application number: 08380274.4

(22) Date of filing: 19.09.2008

(84) Designated Contracting States:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated Extension States:

AL BA MK RS

(30) Priority: 20.09.2007 ES 200701914 U

(71) Applicants:

- Campo Fuentes, Manuel 36680 A Estrada, Pontevedra (ES)
- Rey Folgar, Manuel 36680 A Estrada, Pontevedra (ES)

 Rey Gamallo, José Ramon 36680 A Estrada, Pontevedra (ES)

(72) Inventors:

- Campo Fuentes, Manuel 36680 A Estrada, Pontevedra (ES)
- Rey Folgar, Manuel 36680 A Estrada, Pontevedra (ES)
- Rey Gamallo, José Ramon 36680 A Estrada, Pontevedra (ES)
- (74) Representative: Carvajal y Urquijo, Isabel et al Clarke, Modet & Co.Goya 11 28001 Madrid (ES)

(54) Manual nailing hammer

(57) The present invention relates to a tool which facilitates driving several types of nails into surfaces of different materials and with different resistances, which is manually operated by means of intermittent strikes made by the operator or worker.

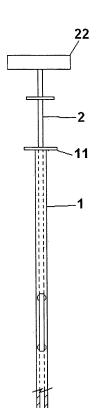


Fig. 2

EP 2 039 478 A1

10

20

Object of the Invention

[0001] The present invention relates to a tool which facilitates driving several types of nails into surfaces of different materials and with different resistances, which is manually operated by means of intermittent strikes made by the operator or worker.

1

Background of the Invention

[0002] On certain occasions, driving a nail is a more complicated operation than is initially imagined, on some occasions because the nails are bent, either because the hammer does not strike in a completely straight manner, or due to the hardness of the material into which they are driven, which offers more resistance than usual. Pneumatic or automatically operated nailing devices partially solve the problem with regard to facilitating the work of the operator, however they also have the problem that the nails are bent when the surface is too hard.

[0003] Both manual hammers and automatic nailing machines have a problem with regard to the accessibility to certain areas in which there is not enough space to move the hammer or to introduce the head of the nailing devices.

Description of the Invention

[0004] The nailing device object of this model favorably solves this accessibility problem, since it can be used in very limited spaces, even in spaces that could not be reached with a hand and work can be carried out with it at a great distance, therefore virtually any type of circumstance in which it is necessary to drive a nail or another object with similar features that is driven in this way are solved.

[0005] This tool comprises a hollow elongated body like a barrel, with a uniform section, provided at midheight with a window through which the nails are manually loaded, one at a time, therein, and a sheath with a length equivalent to the barrel and a uniform section according to its inner hollow, provided with an end handle with the aid of which it is introduced and struck until achieving driving it into a straight position on the surface on which it is supported.

[0006] This nailing hammer has, both in the barrel and the sheath, a ring-shaped base that is respectively located at the end opposite to the outlet of the nail, and a ring-shaped stop striking against it when the nail has been completely introduced, both of them for the purpose of protecting the hand of the user during the nailing operation.

[0007] The length of the sheath and of the bayonet depends on the application and on the size of the nail, and can be from a few centimeters to more than one meter in order to gain access to remote places. The size

of the handle acting as a hammer depends on the size of the nail to be driven.

Description of the Drawings

[0008] To complement the description which is being made and with the aim of facilitating the understanding of the features of the invention, a set of drawings is attached to this specification, in which the following has been shown with an illustrative and non-limiting character:

[0009] Figure 1 shows an elevational view of the nailing hammer with the two parts forming it in an extended or separated position; whereas Figure 2 shows the same view with both parts introduced into one other, in a work position or in an arrangement of driving a nail (3).

Preferred Embodiment of the Invention

[0010] As can be observed in the referenced figures, it is a very simple tool without any type of maintenance which consists of only 2 parts which can have any section or length, depending on the use thereof or on the professional to whom it is aimed.

[0011] The sheath (1) has a preferably cylindrical, elongated and hollow body, which is provided at midheight with a window (12) through which the nail (3) is introduced, with the tip facing downwards.

[0012] The bayonet (2) is also an elongated element with a section equivalent to the hollow of the sheath (1) through which it is introduced to drive the nail (3), which at the opposite end is provided with a handle (22) which allows handling it and striking the nail until it is completely driven onto the support surface of the sheath (1).

[0013] Both the sheath (1) and the bayonet (2) have respective ring-shaped bases (11) and (21), respectively, which determine the limit of penetration of said bayonet in the sheath (1), while at the same time they locate the handle (22) at all times above this area for the purpose of protecting the hand of the operator.

[0014] Having sufficiently described the nature of the invention, as well as a preferred embodiment, it is stated for the relevant purposes that the materials, shape, size and arrangement of the described elements can be modified, provided that this does not involve an alteration of the essential features of the invention which are claimed below:

O Claims

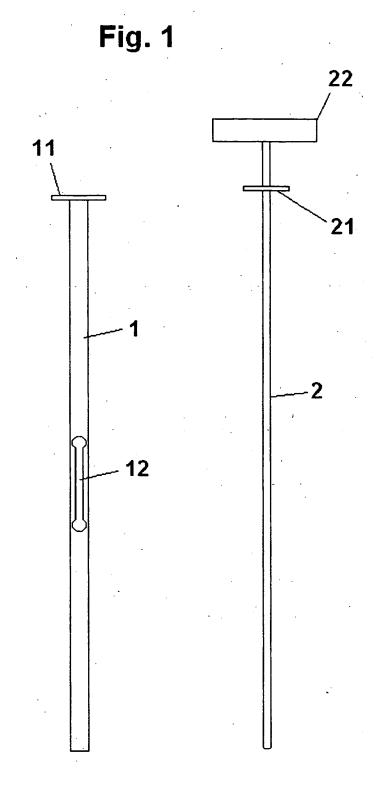
45

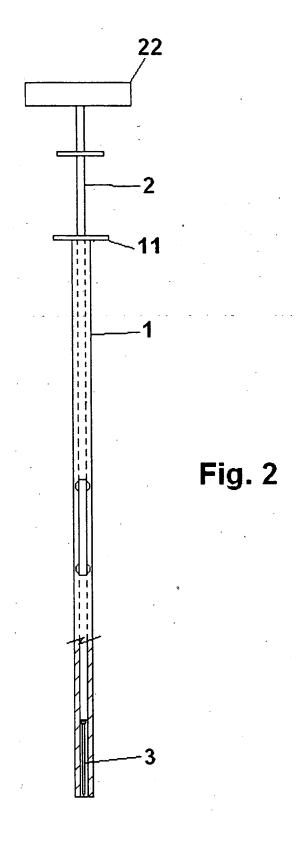
A manual nailing hammer, characterized in that it comprises a hollow elongated body like a barrel (1), with a uniform section, provided at mid-height with an intermediate window (12) through which the nails (3) are loaded manually inside its bore, and a sheath (2) with a length equivalent to the barrel (2) and a uniform section according to its inner hollow, provid-

55

ed with an end handle (22) with the aid of which the nail located inside the barrel is introduced and struck until achieving driving it into a straight position on the surface on which it is supported.

2. The manual nailing hammer according to the previous claim, **characterized in that** both the barrel (1) and the sheath (2) respectively have a ring-shaped base (11) which is located at the end opposite to the outlet of the corresponding nail (3), and a ring-shaped stop (21) striking against it when the nail has been completely introduced, which protect the hand of the user during the nailing operation.







EUROPEAN SEARCH REPORT

Application Number EP 08 38 0274

Category		ndication, where appropriate,	Releva		CLASSIFICATION OF THE
- alogoly	of relevant pass	ages	to clair	n	APPLICATION (IPC)
X	26 September 2002 (FORSE SCOTT E [US]) 2002-09-26) - paragraph [0030] *	1,2		INV. B25C1/02
X	US 4 085 882 A (STA 25 April 1978 (1978 * column 2, line 25 * figures 1,2a-2e *	3-04-25) 5 - column 5, line 2 *	1,2		
X	JP 03 001774 U (UNK 9 January 1991 (199 * figures 1-8 *	(NOWN) 11-01-09)	1		
A	US 4 483 475 A (WHI 20 November 1984 (1 * the whole documer		1,2		
A	US 3 147 484 A (NEL 8 September 1964 (1 * column 1, line 43		1,2		TECHNICAL FIELDS SEARCHED (IPC)
Α	LTD; DONALD LÈONARD 6 July 1960 (1960-0		1		B25D B25C
А	CH 104 853 A (PERRI 2 June 1924 (1924-6 * the whole documer	06-02)	1,2		
	The present search report has	oeen drawn up for all claims	1		
	Place of search	Date of completion of the search	1		Examiner
	The Hague	2 December 2008		Mio	c, Marius
X : part Y : part	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if oombined with anot ument of the same category	T : theory or princip E : earlier patent do after the filing de	le underlying coument, but ite in the applica	the in	nvention

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 08 38 0274

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

02-12-2008

	Patent document ed in search report		Publication date		Patent family member(s)	Publication date
US	2002134812	A1	26-09-2002	NONE		•
US	4085882	Α	25-04-1978	NONE		
JP	3001774	U	09-01-1991	NONE		
US	4483475	Α	20-11-1984	NONE		
US	3147484	Α	08-09-1964	NONE		
GB	840454	Α	06-07-1960	FR	1202767 A	13-01-196
СН	104853	Α	02-06-1924	NONE		

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82