



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**26.10.2022 Bulletin 2022/43**

(51) International Patent Classification (IPC):  
**B27B 17/00** *(2006.01)* **B27B 17/08** *(2006.01)*  
**B25F 5/02** *(2006.01)*

(43) Date of publication A2:  
**27.07.2022 Bulletin 2022/30**

(52) Cooperative Patent Classification (CPC):  
**B27B 17/0008; B25F 5/027; B27B 17/086**

(21) Application number: **21217663.0**

(22) Date of filing: **23.12.2021**

(84) Designated Contracting States:  
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB  
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO  
PL PT RO RS SE SI SK SM TR**  
Designated Extension States:  
**BA ME**  
Designated Validation States:  
**KH MA MD TN**

(72) Inventors:  
• **LAM, Kwok Fan**  
**Kwai Chung (HK)**  
• **WONG, Kar Tat**  
**Kwai Chung (HK)**

(74) Representative: **Grünecker Patent- und  
Rechtsanwälte**  
**PartG mbB**  
**Leopoldstraße 4**  
**80802 München (DE)**

(30) Priority: **05.01.2021 CN 202120008909 U**

(71) Applicant: **Techtronic Cordless GP**  
**Anderson, SC 29621 (US)**

(54) **CHAIN SAW**

(57) A chain saw (100), comprising a housing (10), a drive unit accommodated in the housing (10) and a chain (20) driven by the drive unit, wherein the chain (20) is provided on a guide plate (21) extending from the housing (10) outward along a first axis (L1), and the drive unit rotates about a second axis (L2). The second axis (L2) is located on the plane where the guide plate (21) is located or parallel to the plane where the guide plate (21) is located. The chain saw (100) comprises a front handle (31), wherein one end (311) of the front handle (31) is

connected to the housing (10) and the other end (312) comprises a free end. The drive unit comprises a motor (50), which is located between the front handle (31) and a rear handle (30), and at least part of the motor (50) is at the same height as the front handle (31). A battery mounting portion (13) is formed on one side of the housing (10), and the motor (50) and the battery mounting portion (13) essentially overlap in the direction of the first axis (L1).

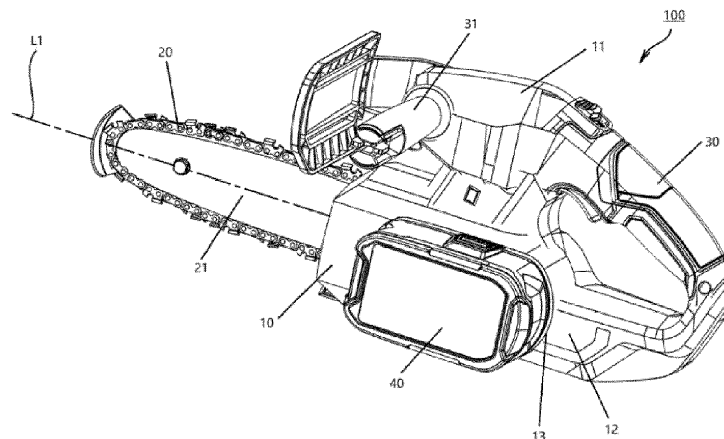


Fig. 1



## EUROPEAN SEARCH REPORT

Application Number

EP 21 21 7663

## DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
<b>X</b>	<b>US 2015/273722 A1 (MADSON DANE CURTIS [US]) 1 October 2015 (2015-10-01)</b>	<b>1-5, 11</b>	<b>INV.</b>
<b>A</b>	<b>* paragraph [0094] - paragraph [0100] *</b> <b>* figures 8-13 *</b> -----	<b>6</b>	<b>B27B17/00</b> <b>B27B17/08</b> <b>B25F5/02</b>
			<b>TECHNICAL FIELDS SEARCHED (IPC)</b>
			<b>B27B</b> <b>B23D</b> <b>B25F</b> <b>B25G</b> <b>B25H</b>
<del>The present search report has been drawn up for all claims</del>			
Place of search		Date of completion of the search	Examiner
<b>The Hague</b>		<b>19 May 2022</b>	<b>Rijks, Mark</b>
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document			

1  
EPO FORM 1503 03.82 (P04C01)



Application Number

EP 21 21 7663

5

10

15

20

25

30

35

40

45

50

55

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

**see sheet B**

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

**1-6, 11**

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

**LACK OF UNITY OF INVENTION  
SHEET B**

Application Number

EP 21 21 7663

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

**1. claims: 1-6, 11**

chain saw whereby the housing comprises an upper part and a lower part, wherein the front handle protrudes from the upper part, the guide plate protrudes from the lower part, the rear handle connects the upper part and the lower part, and at least part of the motor is located in the upper part

---

**2. claims: 7-10**

a battery mounting portion is formed on one side of the housing

---

**3. claims: 12, 13**

the inside of the front handle defines a space for accommodating a tool

---

**4. claims: 14, 15**

circuit board to control the drive unit

---

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

EP 21 21 7663

5 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.

19-05-2022

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
15	US 2015273722	A1	01-10-2015	NONE
20	-----			
25				
30				
35				
40				
45				
50				
55				

EPO FORM P0459

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