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• **Fuma, Tomohiro**
Mizuho-ku, Nagoya-shi, Aich 467 (JP)
• **Washizu, Takashi**
Mizuho-ku, Nagoya-shi, Aich 467 (JP)

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(71) Applicant: **NGK SPARK PLUG CO., LTD**
Mizuho-ku Nagoya-shi Aichi (JP)

(74) Representative: **Nicholls, Michael John**
J.A. KEMP & CO.
14, South Square
Gray's Inn
London WC1R 5JJ (GB)

(72) Inventors:
• **Inagaki, Hiroshi**
Mizuho-ku, Nagoya-shi, Aich 467 (JP)

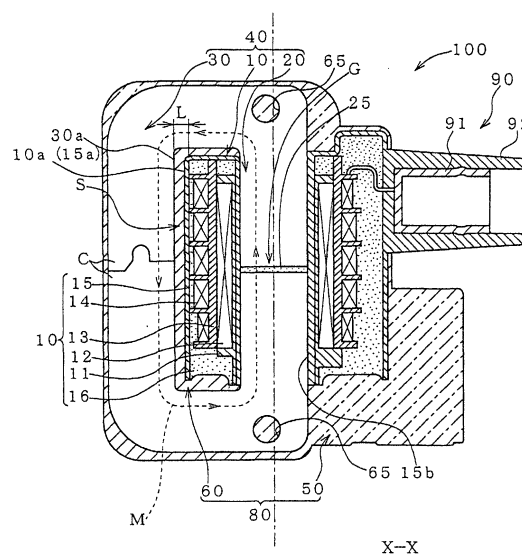
(54) **Ignition coil and ignition unit using the same**

(57) An ignition coil 100 includes a coil section 10—which in turn includes a coil case 15, a primary coil 12 and a secondary coil 14 accommodated within the coil case 15, and an insulating molded layer 16 filling the coil case 15—and a coil core C including a center core section 20 and a yoke section 30. The ignition coil 100 is mounted on an engine body EB such that the coil core C is insulated from the engine body EB, by means of a mounting section 70. The mounting section 70, together with an insulating filling section 60 filling at least partially a gap S formed between the coil section 10 and the coil core C, which face each other, is integrally formed of a polymeric material through integral injection molding. That is, the ignition coil 100 is mounted on the engine body EB by means of the mounting section 70, which, together with the insulating filling section 60 filling the gap S formed between the coil section 10 and the coil core C, which face each other, is integrally formed of a polymeric material through integral injection molding.

Consequently there is disclosed an ignition coil of excellent durability and reliability that is capable of suppressing occurrence of leakage between a secondary coil and a coil core and suppressing generation of corona discharge across a gap between a coil section and the coil core to thereby suppress erosion of, for example, a coil case, which accommodates the primary and

secondary coils, even when the maximum-voltage generation capability of the secondary coil is enhanced as a result of, for example, increase in discharge voltage of a spark plug, and the ignition coil is operated continuously for a long period of time, as well as to provide an ignition unit using the ignition coil.

Fig. 4





European Patent
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EUROPEAN SEARCH REPORT

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EP 01 30 6945

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A,D	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 04, 31 March 1998 (1998-03-31) & JP 9 312226 A (MITSUBISHI ELECTRIC CORP), 2 December 1997 (1997-12-02) * abstract *	1-13	TECHNICAL FIELDS SEARCHED (Int.Cl.7) F02P H01F H01T
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 28 June 2004	Examiner Parmentier, H
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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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
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