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## **EUROPEAN PATENT APPLICATION**

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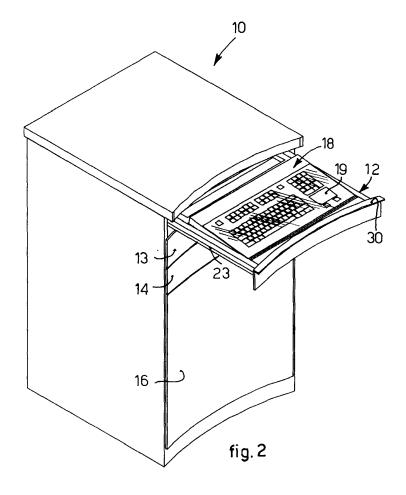
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#### (54) Item of furniture

(57) Item of furniture (10) comprising at least a drawer (12) that can be selectively removed from/inserted into the item of furniture (10). The latter also comprises an electronic data-insertion device (18, 19), which is inte-

grated into the drawer (12) and has a retracted position in the closed condition of the drawer (12), and at least a protective layer which covers the electronic device (18, 19).



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# FIELD OF THE INVENTION

**[0001]** The present invention concerns an item of furniture advantageously but not exclusively usable for example in a dental surgery, a dental technology laboratory, a veterinary surgery, or a beauty salon. The invention is also advantageously applied in places where liquid substances are employed or a determinate level of sterilization, cleanliness and hygiene is required.

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#### BACKGROUND OF THE INVENTION

**[0002]** In the medical field, for example in dental surgeries and dental technology laboratories, there is a very widespread use of electronic calculators which allow the staff to perform various operations, including the insertion, display and management of data relating to patients, or the management of correlated activities, such as making dental prostheses or other.

**[0003]** In order to facilitate the execution of these operations, the staff have a keyboard and a pointer device, for example a mouse, which are normally located on an item of furniture.

**[0004]** The item of furniture normally used is of the type comprising a removable shelf, on which the keyboard and possibly the mouse are disposed, and a work plane used by the staff for resting the instruments and materials needed to treat the patient.

**[0005]** However, despite the fact that the shelf is removable, the keyboard and the mouse are in any case exposed to the external atmospheric agents, such as dust, germs or microorganisms, and can also come into contact with biological material or liquids, thus making it necessary to perform complex operations to clean and sterilize the whole after each patient's appointment. Moreover, given that the keyboard is only resting on the shelf, dust or other material can deposit between it and the shelf, thus further complicating these operations, with the risk of possible infections.

**[0006]** One purpose of the present invention is to achieve an item of furniture that houses inside it an electronic data-insertion device, such as for example a keyboard and/or a pointer device, and which allows the selective removal of the electronic device to allow it to be used, guaranteeing, in every operating condition of the electronic device, that a determinate condition is maintained of cleanliness, sterilization and hygiene, even in places where liquid substances are used.

**[0007]** The Applicant has devised, tested and embodied the present invention to overcome the shortcomings of the state of the art and to obtain these and other purposes and advantages.

#### SUMMARY OF THE INVENTION

[0008] The present invention is set forth and charac-

terized in the main claim, while the dependent claims describe other characteristics of the invention or variants to the main inventive idea.

**[0009]** In accordance with the above purpose, an item of furniture according to the present invention comprises at least a drawer which can be selectively removed from/inserted into the item of furniture. The drawer, in its closed condition, has a substantial continuity of line with the front surface of the item of furniture, for example with other drawers or doors.

**[0010]** According to a characteristic of the present invention, the item of furniture also comprises an electronic data-insertion device which is located inside and is integrated into the drawer and which has a retracted position of non-interference when the drawer is in the closed condition.

**[0011]** According to one form of embodiment, the electronic device comprises, for example, a keyboard and/or a touch-sensitive screen, able to be connected to an electronic calculator. The electronic device also comprises, associated with the keyboard or screen, at least a touch-sensitive zone, also called touch-pad, and/or at least a pointer device.

**[0012]** According to the invention, the item of furniture also comprises protection means that covers the electronic data-insertion device and protects it at least against infiltrations of liquids.

**[0013]** In this way, the item of furniture according to the invention includes, integrated into its drawer, an electronic data-insertion device that is selectively made usable for the user simply by removing the drawer from the item of furniture. To be more exact, the electronic device, since it is covered by the protection means, is kept in a determinate condition of cleanliness and hygiene, under any condition of use, protected from dust, germs or microorganisms.

**[0014]** According to an advantageous embodiment of the invention, the protection means is selectively removable from the electronic data-insertion device so that it can be washed and sterilized. This characteristic is useful especially in the medical field, where strict conditions of hygiene and sterilization must be guaranteed.

**[0015]** According to another advantageous embodiment, the electronic device can be inclined with respect to the drawer by a determinate angle, variable as the user desires, so as to facilitate and make the use of the device more comfortable, for example during keying-in operations.

**[0016]** According to a variant, a guide means is provided, for example associated with the item of furniture, which cooperates with the electronic device so that its inclination is automatically varied by removing and inserting the drawer with respect to the item of furniture.

#### 55 BRIEF DESCRIPTION OF THE DRAWINGS

[0017] These and other characteristics of the present invention will become apparent from the following de-

scription of a preferential form of embodiment, given as a non-restrictive example with reference to the attached drawings wherein:

- fig. 1 is a three-dimensional view of an item of furniture according to the present invention, in a first operating condition;
- fig. 2 is a three-dimensional view of the item of furniture in fig. 1, in a second operating condition;
- fig. 3 is a three-dimensional view of a detail of the item of furniture in fig. 2;
- fig. 4 is a lateral section of a drawer in the item of furniture in fig. 1;
- fig. 5 is a lateral section of a drawer in the item of furniture in fig. 2.

# DETAILED DESCRIPTION OF A PREFERENTIAL FORM OF EMBODIMENT

**[0018]** With reference to fig. 1, an item of furniture 10 according to the present invention comprises three drawers respectively, from top to bottom a first 12, a second 13 and a fourth 14 which, in the closed position, have a substantial continuity of line with the front surface 16 of the item of furniture 10.

**[0019]** According to the invention, the item of furniture 10 comprises, integrated into the first drawer 12, a keyboard 18 (fig. 2) that can be connected to an electronic calculator and also comprising a zone sensitive to touch, or touch pad 19.

**[0020]** The keyboard 18 comprises a plurality of alphanumerical keys made on a single flexible surface, so as not to have grooves between one key and another. Moreover, the keyboard 18, in its entirety, advantageously has a level of protection equal to IP65. In this way, the required level of hygiene and cleanliness is further guaranteed.

**[0021]** The keyboard 18 is covered by a protective layer 21 (figs. 3, 4 and 5) of plastic material, at least partly transparent, which guarantees protection at least against infiltrations of liquid.

**[0022]** According to another variant, the keyboard 18 comprises not only the protective layer 21 but also another removable protective layer, which can be washed and/or sterilized for example in an autoclave.

**[0023]** The keyboard 18 comprises, disposed laterally and on opposite sides, two first pins 22 (figs. 4 and 5) in a front part and two second pins 23 in a central zone thereof.

[0024] To be more exact, the first pins 22 allow to pivot the keyboard 18 to the lateral walls 26 of the drawer 12, while the two second pins 23 are inserted in a respective guide 27 made on two sliding tracks 28 of the drawer 12. [0025] Each guide 27 comprises a first part substantially parallel to the direction of sliding of the drawer 12 and a second part inclined upwards with respect to the first part.

[0026] In this way, when the drawer 12 is closed, the

second pins 23 find themselves in the first part of the guide 27 (fig. 4), and the keyboard 18 is in a lowered position, substantially horizontal and non-interfering, while, when the drawer 12 is removed (fig. 5), the second pins 23 translate towards the second part of the guide 27 causing the rear part of the keyboard 18 to lift. The keyboard 18, being pivoted by means of the first pins 22 to the lateral walls 26, is thus inclined upwards, by an angle that can possibly be adjusted as desired. In this position, the keyboard 18 allows the user to use it easily. [0027] Likewise, by inserting the drawer 12 into the item of furniture 10, the second pins 23 travel in the opposite direction along the guide 27, returning the horizontal keyboard 18 to the previous position of non-interference.

**[0028]** On the front edge of the drawer 12 there is a shaped protrusion 30 on which the user can rest his forearms, particularly the wrists, while he is typing on the keyboard 18 or using the touch-pad 19, thus enabling him to discharge at least a part of the tension exerted on the backbone.

**[0029]** Moreover, the shaped protrusion 30 can also be used as a gripping element to remove and insert the drawer 12.

[6] [0030] It is clear that modifications and/or additions of parts may be made to the item of furniture 10 as described heretofore, without departing from the scope of the present invention.

**[0031]** It is also clear that, although the present invention has been described with reference to some specific examples, a person of skill in the art shall certainly be able to achieve many other equivalent forms of furniture, having the characteristics as set forth in the claims and hence all coming within the field of protection defined thereby.

#### **Claims**

- Item of furniture comprising at least a drawer (12) that can be selectively removed from/inserted into said item of furniture, characterized in that it also comprises an electronic data-insertion device (18, 19), integrated into said drawer (12), having a retracted position in the closed condition of said drawer (12), and a protection means (21) which covers said electronic device (18, 19).
  - 2. Item of furniture as in claim 1, characterized in that said protection means (21) protects said electronic device (18, 19) at least against infiltrations of liquid.
    - Item of furniture as in claim 1 or 2, characterized in that said protection means (21) is selectively removable from said electronic device (18, 19).
    - 4. Item of furniture as in claim 1, 2 or 3, characterized in that said protection means (21) comprises an at

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least partly transparent plastic film.

- 5. Item of furniture as in any claim hereinbefore, characterized in that said electronic device comprises at least a keyboard (18) and/or at least a screen sensitive to touch, able to be connected to an electronic calculator.
- 6. Item of furniture as in any claim hereinbefore, **characterized in that** said electronic device comprises at least a zone sensitive to the touch (19) and/or at least a pointer device.
- 7. Item of furniture as in any claim hereinbefore, **characterized in that** it also comprises a guide means (27) able to allow a selective inclination of said electronic device (18, 19) with respect to sad drawer (12).
- 8. Item of furniture as in claim 7, characterized in that said guide means (27) defines at least said retracted position in which said electronic device (18, 19) is in a position of non-interference, allowing to remove or insert said drawer from/into said item of furniture (10), and a position of use in which said electronic device (18, 19) is at least partly inclined and said drawer (12) is in the removed position.
- 9. Item of furniture as in any claim hereinbefore, **characterized in that** said drawer (12) defines, in the closed condition, a substantial continuity of line with a front surface (16) of said item of furniture (10).
- 10. Item of furniture as in any claim hereinbefore, characterized in that said drawer (12) comprises at the front part at least a shaped element (30) where the user can rest his forearm.

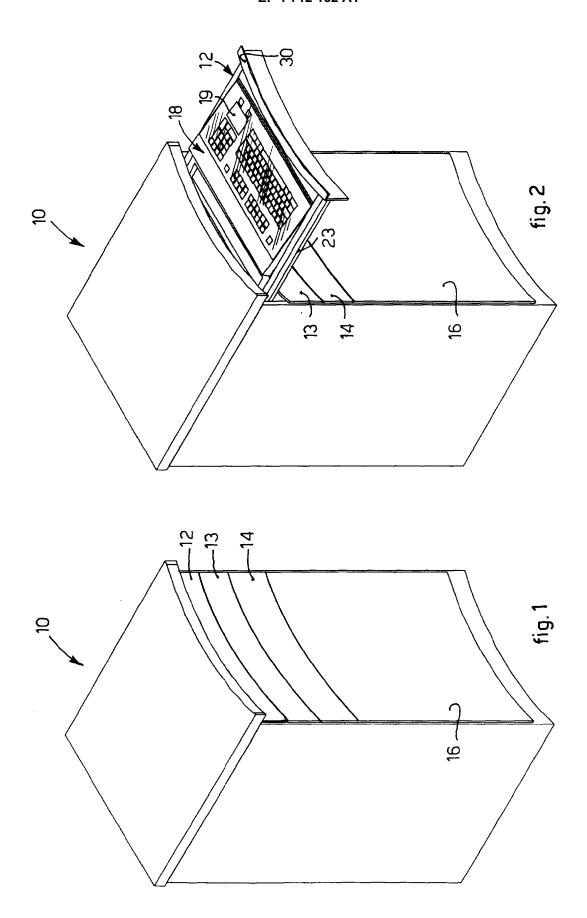
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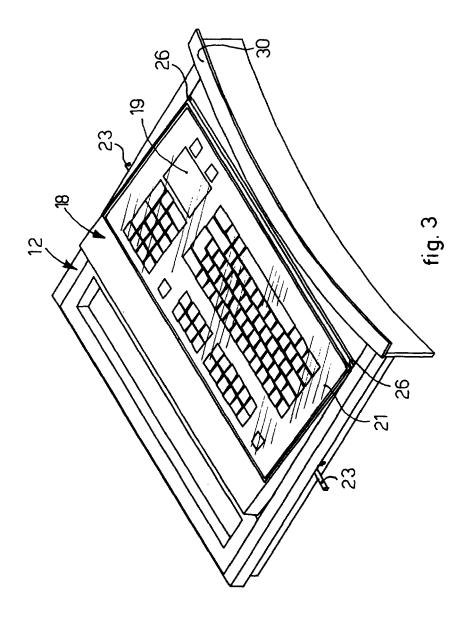
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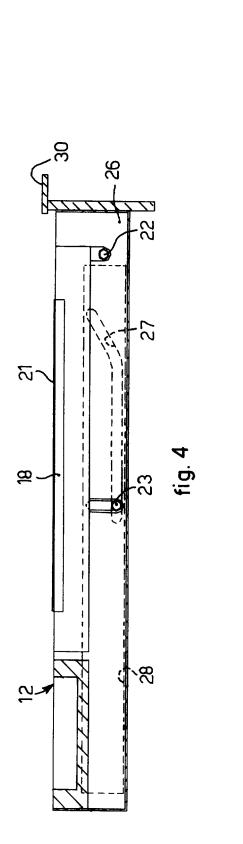
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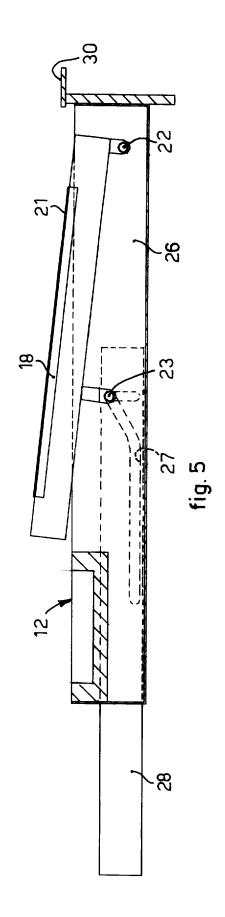
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Application Number EP 06 11 2449

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	The Hague	14 July 2006	Ha	ller, E-C
X : part Y : part docu A : tech O : non	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with anot iment of the same category inological background-written disclosure rmediate document	E : earlier pa after the f her D : documer L : documer	nt cited in the application t cited for other reasons of the same patent famil	ished on, or

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

EP 06 11 2449

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.

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