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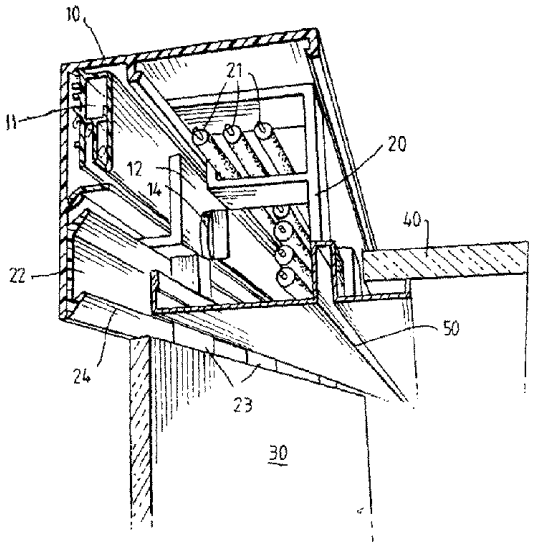
(54)【発明の名称】壁面コーニス装置

(57)【要約】
部屋の壁の周囲を少なくとも部分的に囲むように配置される壁面コーニス。このコーニスは配線および他の材料を収容して支えるように形成され、また、コーニス内の電源に接続可能で、前記電源の配線材料をコーニスからコーニスの下の壁上の必要位置までに延ばすことができ、それによって室内における固定された電源コンセントの必要を排除できるダクト手段を備えている。このためコーニスは、室内で必要とされるすべての電気配線およびケーブルを収容できる。



【特許請求の範囲】
【請求項１】
部屋の壁の周囲を少なくとも部分的に囲むように配置されている壁面コーニスであって、配線、ケーブル、ダクトおよび他の材料を収容して支えるように形成されており、また、前記コーニス内の電源を、前記コーニス下方の任意の所要位置に電力を送るようになっている給電手段に接続する手段を備えており、それによって室内における固定された電源コンセントの必要を無くす壁面コーニス。
【請求項２】
あらゆる形態の電気配線とケーブルおよび部屋に必要な他のダクトを前記コーニスの内部に収容でき、前記コーニスの下方の任意の所要位置に供給する、請求項１に記載の壁面コーニス。
【請求項３】
前記コーニス内の電源が電気母線である、請求項２に記載の壁面コーニス。
【請求項４】
室内で利用される電力を、前記コーニスの内に位置し、前記コーニスから必要とされる電力コンセントまで延びているダクト手段を通る電気母線から供給される、請求項３に記載の壁面コーニス。
【請求項５】
前記ダクト手段は、前記母線と連結しており、電気エネルギーを電源コンセントに送る給電手段で終端するアダプタを含んでいる、請求項４に記載の壁面コーニス。
【請求項６】
壁パネルを壁からある所定の距離をあけて吊り下げる手段を有する、請求項１～５のいずれか１項に記載の壁面コーニス。
【請求項７】
食器棚または他の調度品が吊り下げられた壁パネルと一体型に形成されている、請求項６に記載の壁面コーニス。
【請求項８】
前記壁面コーニスと係合するようになっているブラケットを有し、前記ブラケットは任意のケーブルまたは他のダクトを支持する手段を備えている、請求項１～７のいずれか１項に記載の壁面コーニス。
【請求項９】
天井支持部を形成する手段を有する、請求項１～８のいずれか１項に記載の壁面コーニス。
【請求項１０】
必要に応じて前記コーニスの内側に手を届かせることができるように前記コーニスと係合するようになっている、取り外し可能または蝶番式のカバープレートを有する、請求項１～９のいずれか１項に記載の壁面コーニス。
【請求項１１】
室内の任意の窓またはドアの上面の全体にわたって連続でき、それによってそのような窓およびドアの金具覆いを形成する請求項１０に記載の壁面コーニス。
【請求項１２】
前記コーニスが部屋の壁の上方周囲を連続的に囲んでいる、請求項１１に記載の壁面コーニス。
【発明の詳細な説明】
【０００１】
【技術分野】
本発明は、建築設計と建築様式に関し、特に、建物室内でケーブルおよび配線等をダクトに通すための、効果的で融通性のある手段を提供する技術分野に関する。
【０００２】
【発明の背景】

大多数の建築物、特にレンガまたはコンクリート製の建築物は、内側に間柱、外側に例えばブロックを使って建造されている。

【０００３】

内壁は、ケーブルを通すこともできる空洞を覆う石膏ボードを含んでいることもあるし、漆喰を塗り付けることができるブロックまたはコンクリートなどの固体面のこともある。後者の場合、電線等が漆喰より後退させられていることもあるが、そうでなければ電線等は、屋根から壁または壁に隣接する幅木の上に配置された電源コンセントに延びる電線管の中に封入されることが普通であるケーブルを幅木の後ろに走らせることも知られている。

【０００４】

これらの全ての状況において、ひとたび建物が完成してしまうと、必要に応じてそのようなケーブルを配置すること、特に新たな電源コンセントまたは他の引出口を形成することは難しい。したがって、電力とケーブルの両方を必要とし得るコンピュータおよびその他の装置などの新製品を人々が入手すると、そのような製品を設置するのが大変で、また、製品から電源コンセントまで床を横切る配線も急増する。

【０００５】

多数のコンピュータを有する企業では、便利なケーブル設置が特に必要とされており、建物内で照明または他の電源コンセントが要望されるどんな場所にも便利よく配置できることが一般に望ましい。

【０００６】

室内の電源コンセントの配置が変えられないということは問題であり、これは企業に限られたことではない。例えば、電源を必要とするその取得資産は変化するので、人々は電源コンセント位置について必ずしも同じ空間要件を有しない。

【０００７】

また、病院や老人介護施設では、部屋に居るさまざまな患者が異なるタイプの電気機器を必要とすることがある、それによって、電源コンセント等が不可変に配置されていると利用可能空間の有効利用が困難となる。例えば、ベッドおよび関連機器の位置は、特定の人間の障害に応じて変わり得る。

【０００８】

建物が分割されており、そのような分割を必要に応じて再配置することが要望される場合、電源コンセントおよびケーブル引出口を容易に再配置する何らかの手段を有することも望ましい。

【０００９】

【発明の概要】

本発明の目的は、コンピュータ、照明、および電源用のものを含む建物の室内に必要なケーブルおよび配線を目立たないように容易に使用する方法を提供することであり、

本発明は、部屋の壁の周囲を少なくとも部分的に囲むように配置されている壁面コーニスであって、このコーニスは、配線、ケーブル、ダクトおよび他の材料を収容して支えるように形成されており、また、コーニス内の電源を、コーニス下方の任意の所要位置に電力を送るようになっている給電手段に接続する手段を備えており、それによって室内における固定された電源コンセントの必要を無くす。

【００１０】

このコーニスはケーブルを支えるだけでなく、逓降変圧器を収容したり、電気母線を形成したり、天井の支持部としても使用できる。コーニスは、室内に必要な任意の配線をさらに支えることができる。しかしながら、室内において必要とされる全電力が、コーニス内の電気母線から供給されることが好ましい。

【００１１】

窓およびドア等の上方に金具覆いを形成するように、これらの物体に母線がかからないようにコーニスを使用することができ、それによって部屋の周囲に整合性のある外観を与えることも好ましい。

【００１２】
また、準備されるコーニスが壁の上縁部に隣接しており、室内で必要とされるすべての電気および他のケーブルを、このコーニスからどこでも必要な場所に配線できることが好ましい。
【００１３】
また、本発明のコーニスは、吊り下げ式の壁ユニットを支持する設備を有することも好ましいかもしれない。
【００１４】
本発明のコーニスは、固定されたすべての配線を住居および住宅等から排除するのを推進するものである。この思想により、住宅開発業者は、ここの居住者のニーズに合うように容易に整えることができる住宅構造を提供できる。これは、電力および照明に関するあらゆる要求事項を後から追加でき、また、建売の住宅建築物では許されない物品を後になって追加できるからである。
【００１５】
本発明の思想を使用すれば、台所用品を個々の顧客の要求に合わせてあちこちに動かしたり、変更させることさえ可能である。この種の融通性および提供され得る選択範囲は比類無きものであり、住宅開発業者が開発コストを抑える上で大きな利点となる。
【００１６】
本発明がもっと容易に理解されるよう、そのいくつかの実施態様を添付図面を参照しながら非限定的な例として説明する。
【００１７】
すべてのケーブルを処理するコーニス装置の第１の実施形態（図１）には、標準サイズのレースウェイが設けられている。コーニスの主押出成形品１０が壁の上方角部にはめ込まれ、その中に電力線または母線１１が図３に示されるように留められている。
【００１８】
アダプタ１２により、配線系統のコネクタを用いて母線から電力を取り出すことができる。標準的なそのようなシステムでそうであるように、回転式のつまみ１４によって導線を電力線に連結するが、出力位置が固定されているので、設置された設備や電源コンセント等に構成部品１５を介して電力を供給するための他の接点一式がアダプタ内に必要である。
【００１９】
それから、図５に示されるように多数のブラケット２０が押出成形品に留められ、照明用に調整したケーブル、電話ケーブル、カテゴリ５適合ケーブル、および電源用に調整した配線を含む配線２１が、「ケーブル・トレー」を形成するブラケット２０の上に置かれる。
【００２０】
次に鋼製の調度品吊りストリップ２２が押出成形品の下部に固定され、垂直吊り掛け部材２３が溝２５によって、縁端部２４に沿って調度品吊りストリップ２２から吊り下げられる。それからパネル３０が、溝付きの垂直吊り掛け部材に留められる。このパネルは、棚、壁面取付け式のスピーカ、キャビネットおよび他の調度品を含む調度品、または必要とされる設備を収容し得る。また、電源コンセント付きのパネルをこれらの垂直部材から吊り下げることができ、必要があれば容易に位置を変えることができる。
【００２１】
図６は、ブラケット２０システムに支持されている天井４０の縁端部を示し、他方、図１は、カバープレート５０が所定の位置に留められている全体配置を示す。本発明のこの実施形態では、カバープレートが所定の位置に留められた状態で示されているが、カバープレートはコーニスに蝶番式に取り付けられてもよいことが考えられるであろう。また、本発明の他の実施形態を、コーニスの形状に応じて適切に平板以外の他の形に形成されたカバーに使用できることも考えられる。
【００２２】

このコーニス装置は、プラスチックまたは任意の金属を含む任意の適切な材料から製造されると考えられる。しかしながら、コーニスの関係部分は、吊り下がる壁部材を支持する十分な強度を備えている必要がある。また、コーニスブラケットによって支持される内張り天井が無い場合に、天井まで延びる側のカバープレートを含む本発明の別の実施形態も考えられる。

【００２３】

いずれの実施形態においても、ドアおよび窓の近傍に母線が無い状態にコーニスを天井の全周に延ばすことができ、そのためコーニスがこれらの領域で金具覆いとして作用して、それによって室内により均一な印象を与えると考えられる。

【００２４】

本発明のようなコーニスにより、新技術、コンピュータ、追加の電話線等に容易適応できる高機能の視聴覚機器の設置と関連させることができるかもしれない壁ユニットを設備できる。

【００２５】

本発明のコーニスにより、洗面所キャビネット等に組込式の電源や照明を備えることができるバスルームを提供できるように、変化するニーズに合わせた機能を備えたキッチンを提供できる。

【００２６】

組込式の電源、照明、電話、インターホン、および視聴覚機能を提供するという同様の概念を枕元に適用することもでき、機器等の配置の融通性が極めて重要となる養護施設、老人介護施設、または病院で使用するのに非常に有益な効果があることが明白である。この領域には、本発明の思想の多くの応用例も存在し、特に、病院における各種気体の供給又は吸引、および監視機器、および関連する電力等の設備を含むようにすることもでき、それによって枕元の機器を現在の場合よりはるかに簡単に更新および再配置できるようになる。本発明の思想は、全部の部屋が必要とする供給物を壁面コーニスから一元化することを含み、これによってそのような供給物の他の供給源を必要としなくする。

【００２７】

したがって、本発明の他の実施形態は前述の特徴を任意の数だけ任意の組み合わせで示すと考えられる。また、本明細書では、本発明のいくつかの実施形態しか説明しなかったが、本発明の精神および範囲から逸脱することなく本発明の変形例および変更例を形成できることを理解されたい。

【図面の簡単な説明】

【図１】

壁と天井パネルを含む、実施形態のコーニス装置の斜視断面図である。

【図２】

コーニスのシャーシの基本押出成形品を示す図である。

【図３】

コーニスのシャーシの中に留められた電力線（母線）を示す図である。

【図４】

電力を母線から取り出せるようにするアダプタを備えたコーニスを示す図である。

【図５】

垂直吊り掛け部材が調度品の吊りストリップの上方に吊り下げられているコーニスを示す図である。

【図６】

壁および天井支持部が本来の位置にあるコーニスを示す図である。

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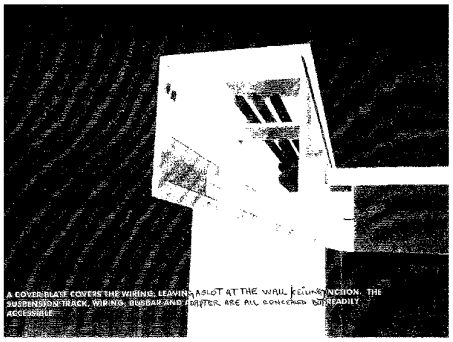
(54) **Title:** WALL CORNICE DUCTING SYSTEM



(57) **Abstract:** A wall cornice located at least partially around the periphery of walls of a room which cornice is so formed as to receive and carry wiring and other materials and is provided with ducting means which can be connected to a power supply in the cornice and carry wiring materials for said power supply from the cornice to a required position on the wall beneath the cornice thereby removing the need for fixed power outlets in a room. The cornice therefor can carry all electrical wiring and cabling required within a room.

WO 02/13348 A1

WALL CORNICE SYSTEM

Technical area

This invention relates to the area of building design and architecture and in particular to the area of providing an efficient and flexible means for ducting of cabling and wiring and the like inside the rooms of buildings.

Background to the invention

Most buildings, particularly those of brick or concrete, are constructed with studs on the interior with brick for example on the exterior.

Interior walls may include plaster board over a cavity through which cabling may be run or may be a solid surface such as brick or concrete which may be plastered over. In the latter case electrical cabling and the like may be set back into the plaster otherwise it is customary for it to be enclosed in conduit running from the roof to power outlets located either on walls or adjacent skirting boards. It is also known for cabling to be run behind skirting boards.

In all these situations it is difficult to locate such cabling and in particular to create new power or other outlets as required once a building is completed. Consequently, as people acquire new products such as computers and other devices which can require

both power other cables there is a difficulty of installing such products and generally also a proliferation of wiring across floors from product to power outlet.

Businesses which have many computers have a particular need for convenient cable installation and in buildings in general it would be desirable if lighting and other outlets could be conveniently located wherever desired.

The inflexible placement of power outlets in rooms is a problem which is not restricted to businesses. For example people do not necessarily have the same spatial requirements for power outlet locations as their acquisition of property requiring power supplies changes.

In addition, in hospitals and aged care facilities, different patients who may occupy a room may require different types of electrical equipment which renders the efficient use of available space difficult where power outlets and the like are inflexibly positioned. For example, dependent upon a particular person's disability, location of beds and associated equipment may vary.

Where premises are partitioned, and it is desired that such partitioning be relocated as required, it would be desirable to also have some means of easily relocating power and cable outlets as required.

Outline of the Invention

It is an object of this invention to provide a method of providing easy access to all cabling and wiring required in a room of a building, including that for computers, light and power in an unobtrusive manner.

The invention is a wall cornice located at least partially around the periphery of walls of a room which cornice is so formed as to receive and carry wiring, cabling, ducting and other materials and is provided with means for connecting a power supply in the cornice to carrier means adapted to carry power to any required location beneath the cornice thereby removing the need for fixed power outlets in a room.

The cornice can be used not only to carry cables but also to receive step down transformers, to provide an electrical bus bar and as a support for a ceiling. The cornice can further carry any wiring required in a room. It is however preferred that all electrical power required in a room be sourced from the electrical busbar within the cornice.

It is also preferred that the cornice can be used without the busbar over windows or doors and the like to form a pelmet over these objects thereby giving a consistent look to the perimeter of a room.

It is further preferred that the cornice which is provided is adjacent the upper edge of a wall and all electrical and other cabling required within a room can be ducted through the cornice to wherever it is required.

It may also be preferred that the cornice of the invention have provision for the support of hanging wall units.

The cornice of the invention is intended to facilitate the elimination of all fixed wiring in houses and apartments and the like. The concept allows developers to supply apartment shells which can be readily fitted out to suit individual resident's needs. This is because all power and lighting requirements can be added later and items which are not allowed for in speculative apartment construction can be added at a later time.

Using the concept of the invention even kitchen appliances can be moved around and altered to individual client requirements. This kind of flexibility and the range of options which can be offered would be unequalled and provide significant advantages to developers in controlling development costs.

In order that the invention may be more readily understood we shall describe by way of non limiting example several embodiments thereof with reference to the accompanying drawings:

Brief description of the Drawing Figures

Fig. 1 Shows a perspective cross-section through an embodiment of the cornice system including wall and ceiling panels;

Fig. 2 Shows the basic extrusion of the cornice chassis;

Fig. 3 Shows the power track (busbar) clipped into the cornice chassis;

Fig. 4 Shows the cornice with an adaptor to allow power to be taken off the busbar;

Fig. 5 Shows the cornice with vertical suspension members hung over a furniture suspension strip;

Fig. 6 Shows the cornice with wall and ceiling supports in situ;

In a first embodiment of the cornice system (Figure 1) which incorporates all cable management a full size raceway is provided. The main cornice extrusion 10 is set into an upper corner of the wall and a power track or busbar 11 is clipped into it as shown in Figure 3.

An adaptor 12 allows power to be taken off the busbar with a connector for the wiring system. A rotary knob 14 engages conductors with the track as with a standard such system but since the output position is stationary another set of contacts will be required within the adaptor to provide power via element 15 to mounted appliances and power outlets etc.

As shown in Figure 5 a number of brackets 20 are then clipped to the extrusion and wiring 21, including controlled cabling for lighting, telephone cables, category 5 cables and controlled wiring for the power supply are draped over the "cable tray" 20 brackets.

A steel furniture suspension strip 22 is then fixed to the lower part of the extrusion and vertical suspension members 23 are hung from the suspension strip 22 along edge 24 by means of slots 25. Panels 30 are then clipped to the slotted vertical suspension members which panels may accommodate shelving, wall mounted speakers, furniture including cabinets and any other pieces of furniture or equipment required. In addition panels with power outlets can be hung on these vertical members and can be readily repositioned if required.

Figure 6 shows an edge of the ceiling 40 supported on the bracket 20 system while figure 1 shows the entire arrangement with a cover plate 50 clipped in place. Although in this embodiment of the invention the cover plate is shown clipped into place it is envisaged that the cover plate could be hingedly attached to the cornice. It is also envisaged that other embodiments of the invention may use some other shaped cover than a plate as appropriate to the cornice shape.

It is envisaged that the cornice system be manufactured from any appropriate material including plastic or any metal. The relevant portion of the cornice would however have to be sufficiently strong to support the hanging wall members. It is also envisaged that

another embodiment of the invention include a cover plate which extends up to the ceiling where no interior lining ceiling is supported by the cornice brackets.

In either embodiment it is envisaged that the cornice could be run around the entire periphery of a ceiling with the absence of the busbar in the vicinity of doors and windows so that the cornice acts as a pelmet in these regions thus providing a more uniform effect in a room.

A cornice such as that of the invention allows the installation of wall units which may be associated with sophisticated audio visual installations with easy adaptation to add new technology, computers, additional phone lines etc.

It provides kitchens with the ability to be adapted to changing needs as it does bathrooms where shaving cabinets and the like can be provided with integrated power and lighting.

A similar concept of the provision of integrated power, lighting, phone, intercom and audio visual features can be provided in relation to bedheads and there is clearly a very beneficial effect for use in nursing homes, aged care facilities or hospitals where flexibility of placement of equipment and the like is of great importance. Also in this area there are many applications of the concept of the invention and in particular it could be adapted to include the provision of gases, or suction, monitoring equipment and

associated power and such like in hospitals thereby permitting bedhead equipment to be updated and relocated with greater ease than currently is the case. The concept of the invention includes the integration of the supply of all room requirements from a wall cornice thereby removing the requirement for any other source of such supply.

It is therefor envisaged that other embodiments of the invention will exhibit any number of and any combination of the features previously described and whilst we have described herein several specific embodiments of the invention it is to be understood that variations and modifications in this can be made without departing from the spirit and scope thereof.

The claims defining this invention are as follows:

1. A wall cornice located at least partially around the periphery of walls of a room which cornice is so formed as to receive and carry wiring, cabling, ducting and other materials and is provided with means for connecting a power supply in the cornice to carrier means adapted to carry power to any required location beneath the cornice thereby removing the need for fixed power outlets in a room.

2. A wall cornice as claimed in claim 1 which can carry therein and supply to any position below the cornice all forms of electrical wiring and cabling and other ducting required for a room.

3. A wall cornice as claimed in claim 2 wherein the power supply in the cornice is an elecrical busbar.

4. A wall cornice as claimed in claim 3 wherein electrical power used in a room is sourced from the electrical busbar which is the in the cornice through ducting means from the cornice to a required power outlet.

5. A wall cornice as claimed in claim 4 wherein the ducting means includes an adaptor engaging with the busbar which adaptor terminates in carrier means to transport electrical energy to a power outlet.

6. A wall cornice as claimed in any one of claims 1 to 5 having a means for suspending wall panels at some predetermined distance from a wall.

7. A wall cornice as claimed in claim 6 wherein cupboards and other furniture are integral with suspended wall panels.

8. A wall cornice as claimed in any one of claims 1 to 7 having a bracket adapted to engage with it, said bracket being provided with means to support any cabling or other ducting.

9. A wall cornice as claimed in any preceding claim having means to provide ceiling support.

10. A wall cornice as claimed in any preceding claim having a removable or hinged cover plate adapted to engage with it such that access to the interior of the cornice can be obtained as required.

11. A wall cornice as claimed in claim 10 which may be continuous across an upper surface of any windows or doors in a room thereby forming a pelmet for such windows and doors.

12. A wall cornice as claimed in claim 11 wherein the cornice is continuous about the upper periphery of the walls of a room.

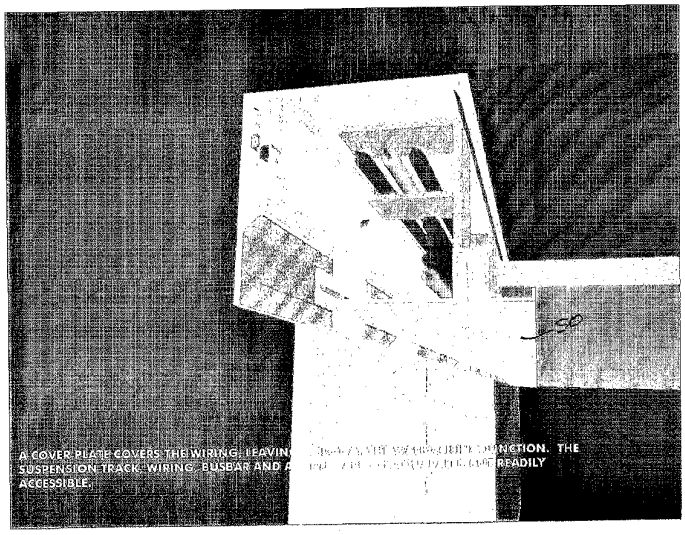

A COVER PLATE COVERS THE WIRING, LEAVIN
NCTION. THE
SUSPENSION TRACK, WIRING, BUSBAR AND A
READILY
ACCESSIBLE.

Fig. 1

Fig. 1

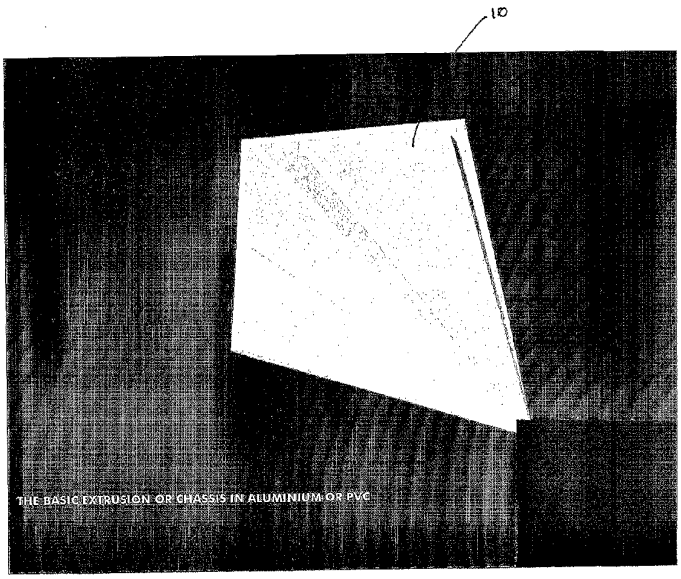


Fig. 2.

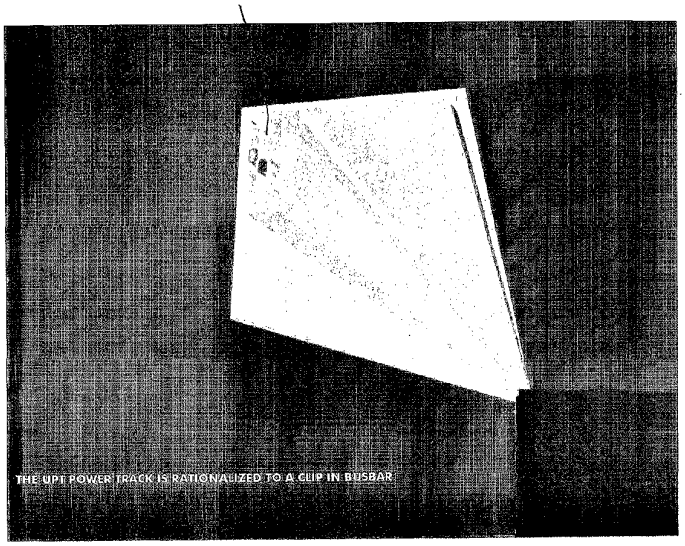


Fig. 3

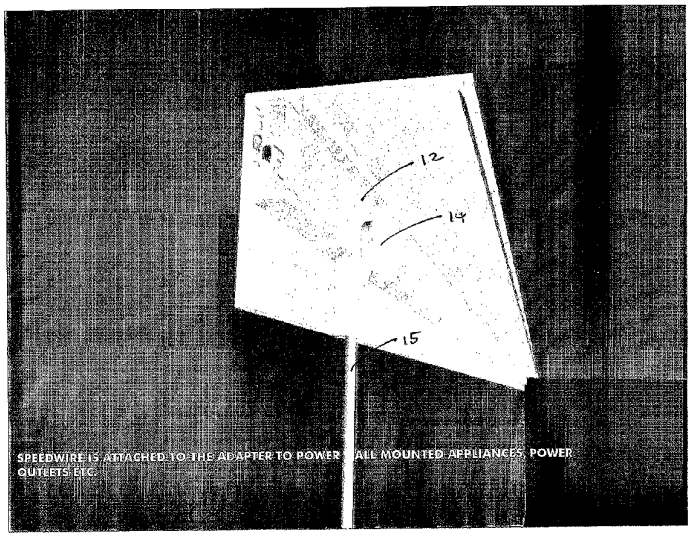

12
14
15
SPEEDWIRE IS ATTACHED TO THE ADAPTER TO POWER WALL MOUNTED APPLIANCES, POWER OUTLETS ETC.

Fig. 4

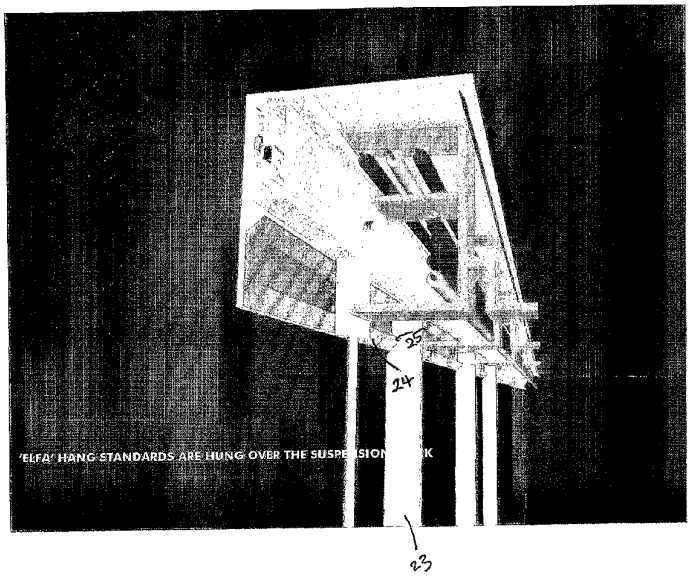


Fig. 5

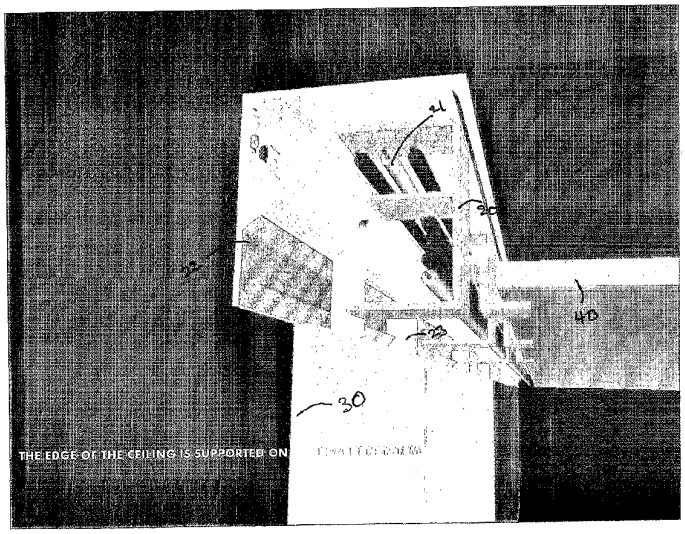


Fig. 6

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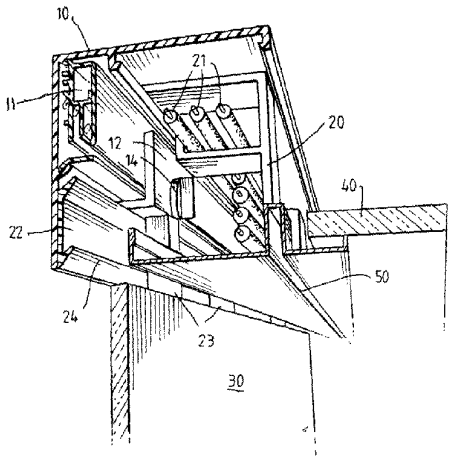
[Continued on next page]

(54) Title: WALL CORNICE DUCTING SYSTEM



(57) Abstract: A wall cornice located at least partially around the periphery of walls of a room which cornice is so formed as to receive and carry wiring and other materials and is provided with ducting means which can be connected to a power supply in the cornice and carry wiring materials for said power supply from the cornice to a required position on the wall beneath the cornice thereby removing the need for fixed power outlets in a room. The cornice therefor can carry all electrical wiring and cabling required within a room.

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CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WALL CORNICE SYSTEM

Technical area

This invention relates to the area of building design and architecture and in particular to the area of providing an efficient and flexible means for ducting of cabling and wiring and the like inside the rooms of buildings.

Background to the invention

Most buildings, particularly those of brick or concrete, are constructed with studs on the interior with brick for example on the exterior.

Interior walls may include plaster board over a cavity through which cabling may be run or may be a solid surface such as brick or concrete which may be plastered over. In the latter case electrical cabling and the like may be set back into the plaster otherwise it is customary for it to be enclosed in conduit running from the roof to power outlets located either on walls or adjacent skirting boards. It is also known for cabling to be run behind skirting boards.

In all these situations it is difficult to locate such cabling and in particular to create new power or other outlets as required once a building is completed. Consequently, as people acquire new products such as computers and other devices which can require

both power other cables there is a difficulty of installing such products and generally also a proliferation of wiring across floors from product to power outlet.

Businesses which have many computers have a particular need for convenient cable installation and in buildings in general it would be desirable if lighting and other outlets could be conveniently located wherever desired.

The inflexible placement of power outlets in rooms is a problem which is not restricted to businesses. For example people do not necessarily have the same spatial requirements for power outlet locations as their acquisition of property requiring power supplies changes.

In addition, in hospitals and aged care facilities, different patients who may occupy a room may require different types of electrical equipment which renders the efficient use of available space difficult where power outlets and the like are inflexibly positioned. For example, dependent upon a particular person's disability, location of beds and associated equipment may vary.

Where premises are partitioned, and it is desired that such partitioning be relocated as required, it would be desirable to also have some means of easily relocating power and cable outlets as required.

Outline of the Invention

It is an object of this invention to provide a method of providing easy access to all cabling and wiring required in a room of a building, including that for computers, light and power in an unobtrusive manner.

The invention is a wall cornice located at least partially around the periphery of walls of a room which cornice is so formed as to receive and carry wiring, cabling, ducting and other materials and is provided with means for connecting a power supply in the cornice to carrier means adapted to carry power to any required location beneath the cornice thereby removing the need for fixed power outlets in a room.

The cornice can be used not only to carry cables but also to receive step down transformers, to provide an electrical bus bar and as a support for a ceiling. The cornice can further carry any wiring required in a room. It is however preferred that all electrical power required in a room be sourced from the electrical busbar within the cornice.

It is also preferred that the cornice can be used without the busbar over windows or doors and the like to form a pelmet over these objects thereby giving a consistent look to the perimeter of a room.

It is further preferred that the cornice which is provided is adjacent the upper edge of a wall and all electrical and other cabling required within a room can be ducted through the cornice to wherever it is required.

It may also be preferred that the cornice of the invention have provision for the support of hanging wall units.

The cornice of the invention is intended to facilitate the elimination of all fixed wiring in houses and apartments and the like. The concept allows developers to supply apartment shells which can be readily fitted out to suit individual resident's needs. This is because all power and lighting requirements can be added later and items which are not allowed for in speculative apartment construction can be added at a later time.

Using the concept of the invention even kitchen appliances can be moved around and altered to individual client requirements. This kind of flexibility and the range of options which can be offered would be unequalled and provide significant advantages to developers in controlling development costs.

In order that the invention may be more readily understood we shall describe by way of non limiting example several embodiments thereof with reference to the accompanying drawings:

5

Brief description of the Drawing Figures

Fig. 1 Shows a perspective cross-section through an embodiment of the cornice system including wall and ceiling panels;

Fig. 2 Shows the basic extrusion of the cornice chassis;

Fig. 3 Shows the power track (busbar) clipped into the cornice chassis;

Fig. 4 Shows the cornice with an adaptor to allow power to be taken off the busbar;

Fig. 5 Shows the cornice with vertical suspension members hung over a furniture suspension strip;

Fig. 6 Shows the cornice with wall and ceiling supports in situ;

In a first embodiment of the cornice system (Figure 1) which incorporates all cable management a full size raceway is provided. The main cornice extrusion 10 is set into an upper corner of the wall and a power track or busbar 11 is clipped into it as shown in Figure 3.

An adaptor 12 allows power to be taken off the busbar with a connector for the wiring system. A rotary knob 14 engages conductors with the track as with a standard such system but since the output position is stationary another set of contacts will be required within the adaptor to provide power via element 15 to mounted appliances and power outlets etc.

As shown in Figure 5 a number of brackets 20 are then clipped to the extrusion and wiring 21, including controlled cabling for lighting, telephone cables, category 5 cables and controlled wiring for the power supply are draped over the "cable tray" 20 brackets.

A steel furniture suspension strip 22 is then fixed to the lower part of the extrusion and vertical suspension members 23 are hung from the suspension strip 22 along edge 24 by means of slots 25. Panels 30 are then clipped to the slotted vertical suspension members which panels may accommodate shelving, wall mounted speakers, furniture including cabinets and any other pieces of furniture or equipment required. In addition panels with power outlets can be hung on these vertical members and can be readily repositioned if required.

Figure 6 shows an edge of the ceiling 40 supported on the bracket 20 system while figure 1 shows the entire arrangement with a cover plate 50 clipped in place. Although in this embodiment of the invention the cover plate is shown clipped into place it is envisaged that the cover plate could be hingedly attached to the cornice. It is also envisaged that other embodiments of the invention may use some other shaped cover than a plate as appropriate to the cornice shape.

It is envisaged that the cornice system be manufactured from any appropriate material including plastic or any metal. The relevant portion of the cornice would however have to be sufficiently strong to support the hanging wall members. It is also envisaged that

another embodiment of the invention include a cover plate which extends up to the ceiling where no interior lining ceiling is supported by the cornice brackets.

In either embodiment it is envisaged that the cornice could be run around the entire periphery of a ceiling with the absence of the busbar in the vicinity of doors and windows so that the cornice acts as a pelmet in these regions thus providing a more uniform effect in a room.

A cornice such as that of the invention allows the installation of wall units which may be associated with sophisticated audio visual installations with easy adaptation to add new technology, computers, additional phone lines etc.

It provides kitchens with the ability to be adapted to changing needs as it does bathrooms where shaving cabinets and the like can be provided with integrated power and lighting.

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It is therefor envisaged that other embodiments of the invention will exhibit any number of and any combination of the features previously described and whilst we have described herein several specific embodiments of the invention it is to be understood that variations and modifications in this can be made without departing from the spirit and scope thereof.

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1. A wall cornice located at least partially around the periphery of walls of a room which cornice is so formed as to receive and carry wiring, cabling, ducting and other materials and is provided with means for connecting a power supply in the cornice to carrier means adapted to carry power to any required location beneath the cornice thereby removing the need for fixed power outlets in a room.

2. A wall cornice as claimed in claim 1 which can carry therein and supply to any position below the cornice all forms of electrical wiring and cabling and other ducting required for a room.

3. A wall cornice as claimed in claim 2 wherein the power supply in the cornice is an elecrical busbar.

4. A wall cornice as claimed in claim 3 wherein electrical power used in a room is sourced from the electrical busbar which is the in the cornice through ducting means from the cornice to a required power outlet.

5. A wall cornice as claimed in claim 4 wherein the ducting means includes an adaptor engaging with the busbar which adaptor terminates in carrier means to transport electrical energy to a power outlet.

6. A wall cornice as claimed in any one of claims 1 to 5 having a means for suspending wall panels at some predetermined distance from a wall.

7. A wall cornice as claimed in claim 6 wherein cupboards and other furniture are integral with suspended wall panels.

8. A wall cornice as claimed in any one of claims 1 to 7 having a bracket adapted to engage with it, said bracket being provided with means to support any cabling or other ducting.

9. A wall cornice as claimed in any preceding claim having means to provide ceiling support.

10. A wall cornice as claimed in any preceding claim having a removable or hinged cover plate adapted to engage with it such that access to the interior of the cornice can be obtained as required.

11. A wall cornice as claimed in claim 10 which may be continuous across an upper surface of any windows or doors in a room thereby forming a pelmet for such windows and doors.

12. A wall cornice as claimed in claim 11 wherein the cornice is continuous about the upper periphery of the walls of a room.

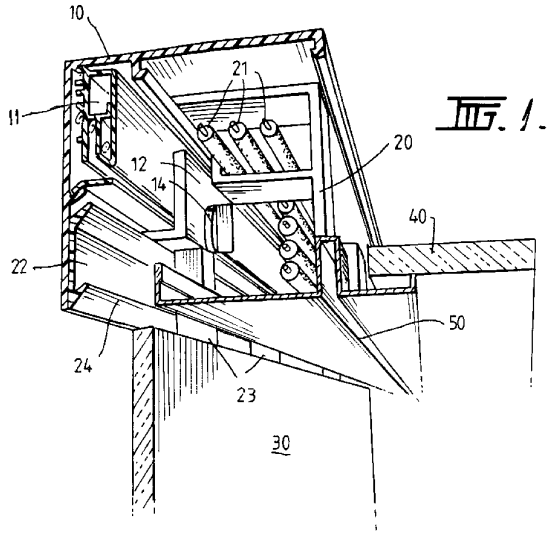

FIG. 1.

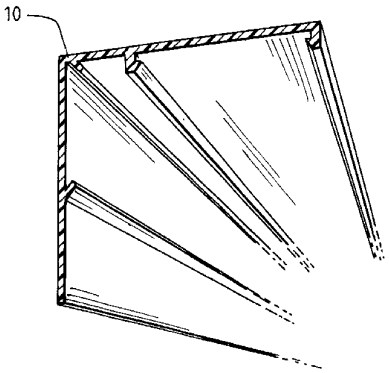

FIG. 2.

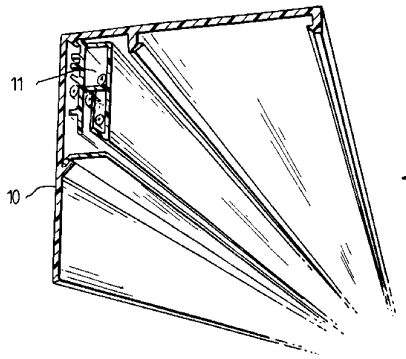

Fig. 3.

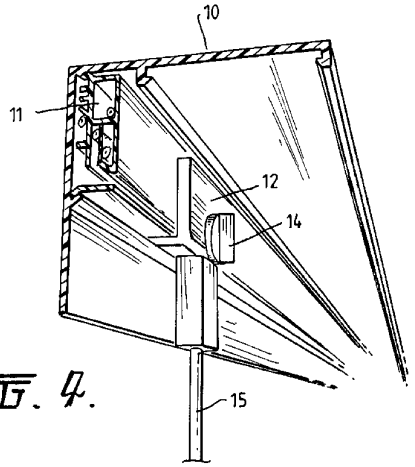

Fig. 4.

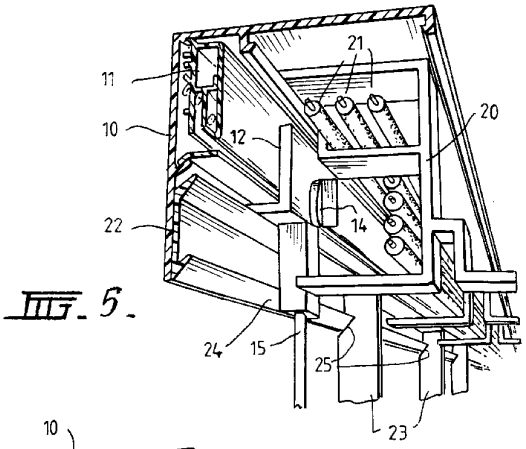

Fig. 5.

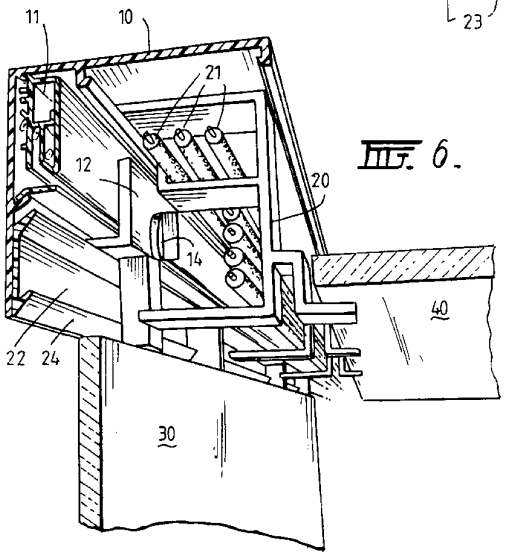

Fig. 6.

【国際調査報告】

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU01/00967

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. [7]: H02G 3/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC: REFER ELECTRONIC DATABASE CONSULTED BELOW

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
AU: IPC H02G 3/24, 3/26, 3/28, 3/30, 3/36, 3/38

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
DWPI using search terms E04C 1/00, 1/39, E04F 17/00, 17/08, 19/-, F16L 3/-, G02B 6/46, H02G 3/-, H02G 5/-, cornice, pelmet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5331526 (GIROT et al) 19 July 1994 See whole document	1-5
X	WO 9528758 A (MÅNSSON) 26 October 1995 See whole document	1, 2, 10
X	AU 95221/98 A (LEGRAND) 24 June 1999 See whole document	1, 2, 10

[X] Further documents are listed in the continuation of Box C [X] See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
21 November 2001	24 NOV 2001
Name and mailing address of the ISA/AU	Authorized officer
AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustralia.gov.au Facsimile No. (02) 6285 3929	**DEREK BUTLER** Telephone No : (02) 6283 2347

Form PCT/ISA/210 (second sheet) (July 1998)

INTERNATIONAL SEARCH REPORT	International application No. PCT/AU01/00967

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	AU 33344/89 (DUNN) 26 October 1989 See whole document, particularly figure 9	1, 2, 10
X	GB 2191518 A (ECCLESHALL) 16 December 1987 See whole document	1, 2, 10
X	FR 2711169 A (PROFILOR SA) 21 April 1995 See figures	1, 2, 10
X	AU 20505/34 A (WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY) 19 December 1935 See whole document	1, 2, 10
P, X	WO 200056997 A (ABEL) 28 September 2000 See whole document	1, 2, 10
P, X	FR 2798521 A (SOCIETE PROBOIS SA) 16 March 2001 See figures	1, 2, 10
A	US 5110080 A (RIEMEN) 5 May 1992 See whole document	1-12

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/AU01/00967

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
US	5331526	AU	30488/92	EP	551041	FR	2685948
WO	9528758	AU	23786/95	EP	756769	NO	964421
		SE	9401297	US	6021619		
AU	95221/98	EP	921616	FR	2772200	FR	2772201
		HU	9802804	PL	330060	TR	9802532
		ZA	9810992	AU	40467/99	BR	9907079
		EP	1042851	HU	200101889	PL	341476
		WO	200025403				
AU	33344/89	NIL					
GB	2191518	NIL					
FR	2711169	NIL					
WO	200056997	AU	37758/00				
FR	2798521	NIL					
US	5110080	AU	30545/89	SE	8800441	WO	8907409

END OF ANNEX

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(81)指定国 AP(GH,GM,KE,LS,MW,MZ,SD,SL,SZ,TZ,UG,ZW),EA(AM,AZ,BY,KG,KZ,MD,RU,TJ,TM),EP(AT,BE,CH,CY,DE,DK,ES,FI,FR,GB,GR,IE,IT,LU,MC,NL,PT,SE,TR),OA(BF,BJ,CF,CG,CI,CM,GA,GN,GQ,GW,ML,MR,NE,SN,TD,TG),AE,AG,AL,AM,AT,AU,AZ,BA,BB,BG,BR,BY,BZ,CA,CH,CN,CO,CR,CU,CZ,DE,DK,DM,DZ,EC,EE,ES,FI,GB,GD,GE,GH,GM,HR,HU,ID,IL,IN,IS,JP,KE,KG,KP,KR,KZ,LC,LK,LR,LS,LT,LU,LV,MA,MD,MG,MK,MN,MW,MX,MZ,NO,NZ,PL,PT,RO,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TR,TT,TZ,UA,UG,US,UZ,VN,YU,ZA,ZW

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