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(54) **A mobile extractor hood with a concertina type collector pipe.**

(57) This consists of a hood made up of a guide structure held to an upper part; wall, ceiling or upper anchorage point; that contains a pipe in the shape of a concertina that can get longer or shorter in accordance with possible movement along the aforementioned guides, with the concertina shaped pipe being joined to the lower part of the mobile hood, and to the fixed part connected to the absorption device.

For application in the manufacture of fume extractor hoods.

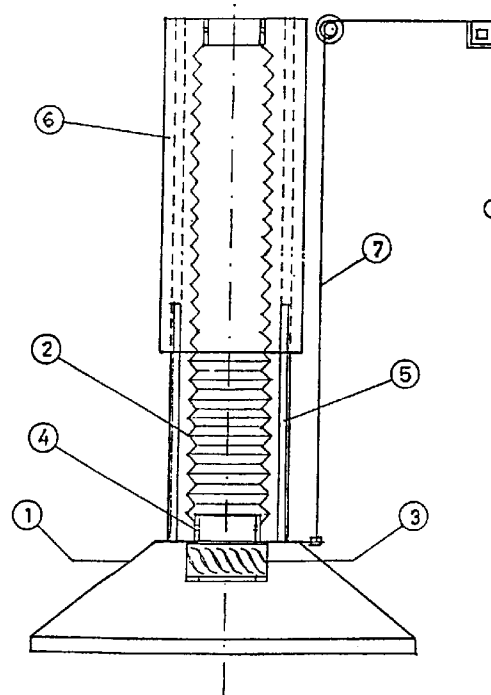


FIG. 1

The sector covered by the technique used for this patent is that of the manufacture of fume extractor hoods, essentially of the household type, and in particular of the industrial type.

Details as regards the prior art:

The present prior art takes the installations to this end to be dependent on a system that has, through its aesthetic and static configuration (chimney type), brought about a problem of power and efficiency loss in fume extraction, with the distance between the collector or hood and the base from which extraction is to be made being where the main problem of optimum extraction lies.

ES U 229 295 covers the protection of a mobile hood laid out in two parts, one outside and one inside, that determine the regulation of the height by sliding within one another, and that are stabilized by counterweights. This device has the disadvantage that either the manufacture has to be extremely accurate, so leading to very expensive results, or that absorption losses occur if the adjustment between the two telescopic parts is not very accurate. Furthermore, the absorption surface is smaller as all the inner surface of the piece is taken up, so providing lesser suction flow.

The present invention has as its object a new mobile extractor hood with a concertina type collector pipe, with the particular novelty that the concertina itself should be fitted in the neck of kitchen hoods, with its purpose being to provide these with mobility in a vertical plane.

This new mobile extractor hood, whose system is mainly based on the application of a concertina type flexible pipe, fixed at one end to the neck of the hood, and on its fixing to the general fume extractor collector at the other end, results in a hood that has highly useful mobility upward and downward, and which, by means of a pulley and brake mechanism enables the required distance from the base from which extraction is made to be obtained, and enables its later retracting to the locking point, or to any distance that is suitable or decided upon to maintain, with the added advantage that the possibility of being able to fit the extractor fan at both ends, either inside the hood or in the inlet of the general collector, leads to a greater range of installation options for the installation.

The advantage that this new mobile extractor hood with a concertina type collector pipe contributes to the extraction of fumes is obvious, and it is very simple as a whole, since it stems from a simple and functional structural basis in its basic conception (since mechanical or electrical systems can be adapted to its special function of vertical movement), but as has already been said, its operation system is economical, practical and efficient, thus giving it advantages as regards manufacturing costs in such a way

as to bring about an increase in demand in the sector, due to the particular economic quality of purchasing power, since one of the objectives of this invention is to provide the fume extraction installation with the greatest efficiency at the lowest cost.

The mobile extractor hood with a concertina type collector pipe that is the object of this registration enables steam, smoke, grease, etc. to be collected by bringing the hood close to the base from which the emission to be extracted is coming, thus preventing draughts of air breaking the absorption flow, since these do not have physical space in which to get out, because, as the user determines, the hood can be placed practically on top of the source of the smoke or steam to be collected, with structural and constitutive aspects that considerably differ from the different systems at present known of used for these purposes.

In order to make the explanation that is to follow clearer, a sheet of drawings that represent the essence of this invention in two figures is enclosed.

Figure 1 shows a vertical elevational and schematic view of the installation, according to an example of its practical execution.

Figure 2 shows a plan view of this same execution.

Figure 1 shows a general vertical elevational and longitudinal projection of the mounted assembly, in which one can see the linkage of the concertina type collector tube, between the upper part of the hood and next to the fan, by means of linking terminals, and the upper fixed support, with, on both sides, sliding guides and a mobilizing pullwire or dragline for raising or lowering the hood, by means of a pulley and a brake.

Figure 2 shows a conventional plan view of the extractor hood, connected to the concertina type collector pipe and the sliding vertical parallel guides joined to the hood and sliding over the upper fixed support.

In both these figures: 1 indicates the extractor hood that can be given a conical or pyramidal body shape, for example, to which, at the upper end, the concertina type collector pipe 2 is linked, joined to the extractor fan 3, by means of linking terminals 4 inserted by a thread system, inserted and disconnected by a small turn or fixed on by means of a mounting pin or peg, with the concertina type collector pipe 2 being the fundamental basis of the installation that is object of this invention, whose special qualities allow the movement of the hood 1 in an upward or downward direction.

Along with all the basic elements mentioned above, the installation is provided with two guides 5 in parallel position, along which the hood 1 slides in a vertical direction, preventing any lateral swaying and providing the whole assembly with rigidity, as can be seen from figure 1.

The mobilization system with vertical movement

is based on a pullwire or dragline 7, which, fixed by the lower end to the upper part of the hood 1, makes this go up or go down by means of a pulley and a brake, this operation being carried out by the user. This pullwire can be fitted either inside or outside the hood, as a esthetic or accessibility criteria, etc. may determine.

The terminals of link 4 at the ends of the concertina type collector pipe, enable this to be joined to the hood 1, at one end, and at the other end to the general collector or to the inlet of the extractor 3, if this has been installed at the upper end.

Depending on the economic criteria in its manufacture, the different pieces of the mobile extractor hood, such as for example the linking terminals 4, hood 1 and others, can be made of metal, plastic, by injection, of glass, or of several materials at the same time, with said linking terminals 4 being fitted with a thread system that for example, with a small turn, allows simple assembly of the whole unit, facilitating the separate cleaning of the different parts that make up the extractor unit.

Fixed with the usual kind of fixing screws to the ceiling or to an upper anchorage point, at least two male (or female) guides 5 hang down in parallel positions, these being joined at their ends to a rectangular piece and to an assembly with an internal semicircle configuration 6. On the other side, and fixed to the upper plate of the hood 1, there are the two female (or male) guides, 5 that are set out on a vertical position and also joined at their ends to part 6, but placed in the opposite way, thus bringing about the sliding of guides 5, with the collector pipe 2 being unobstructed by them.

We must state the possibility of having the different parts made of a variety of materials, sizes, shapes and colours, with it also being able to introduce such variations of constructive type as practice recommends, whilst maintaining the essence of this invention.

Claims

1.- A mobile extractor hood with a concertina type collector pipe characterized in that it includes a concertina type collector pipe (2), joined at the bottom end and through a linking terminal (4), provided with a thread system of insertion and disconnection by a small turn or fixed on with a pin or peg to the upper part of the hood and at the upper end, to the general collector located in the ceiling or to an upper anchorage point, for example the wall, that can achieve the vertical movement of the collector at the same time as allowing its collecting function in any position, with the ventilator fan being located in the upper part of the general collector or inside the hood.

2.- Extractor hood, according to claim 1, charac-

terized in that it includes male (female) guides (5), set out vertically and fixed to the ceiling or to an upper anchorage point, for example the wall, that can move along both sides of the concertina type collector pipe, and to which other vertical female (male) guides are joined, being linked at their bottom end to the extractor hood, in accordance with the possible vertical movement.

3.- Extractor hood, according to claims 1 and 2, characterized in that it includes a positioning system or mechanism, consisting of a pullwire (7) joined at its bottom end to the upper part of the hood, going up to a point close to the ceiling or to an upper part in which there is an anchorage point, where, for example, a pulley is installed, after which a position brake is installed, and finished off at the end hanging down with a control or pull to be drawn on by the user, for lifting or lowering the device, with the possibility of optionally installing a mechanical/electrical system.

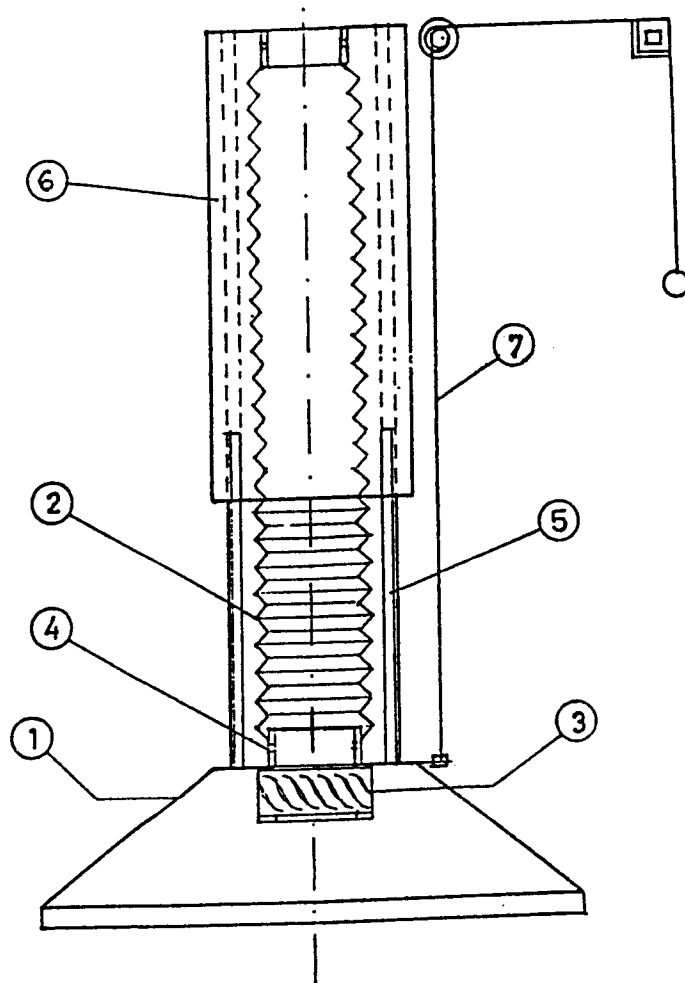


FIG. 1

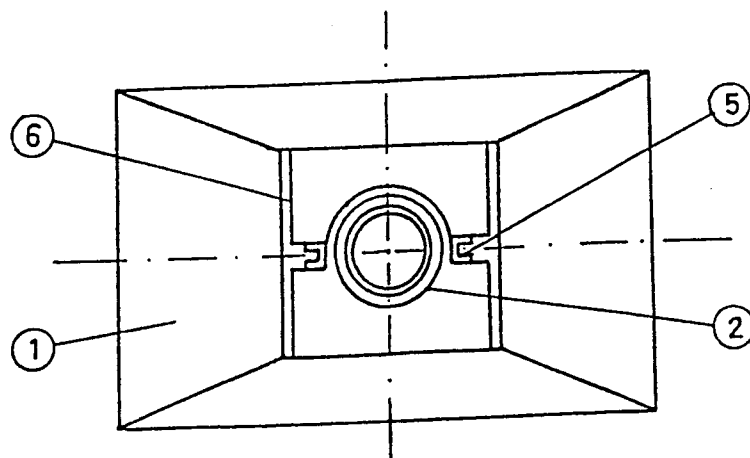


FIG. 2