

(No Model.)

A. J. SPINNER.

PROCESS OF CONVEYING REMEDIES TO SEAT OF DISEASE.

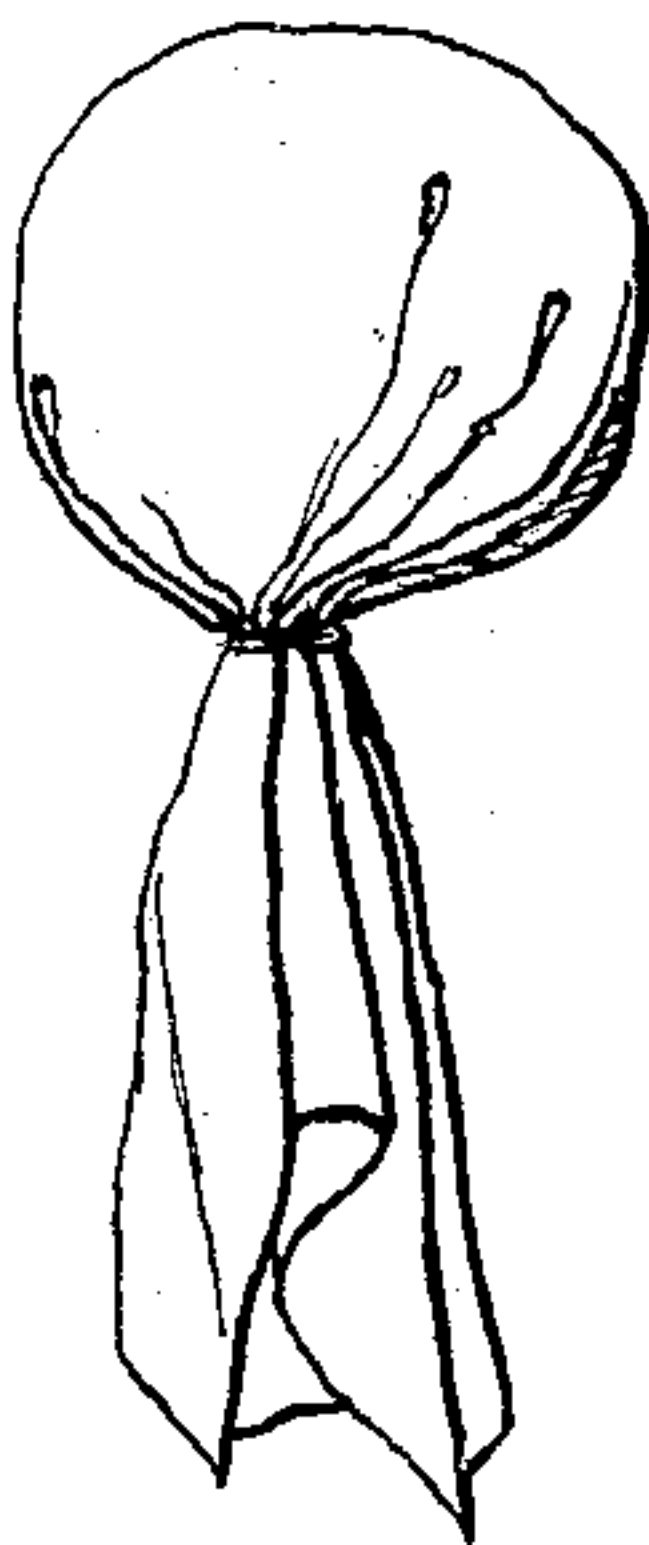
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Fig. 1.



Fig. 2.



WITNESSES.

Gustav Bohn.
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UNITED STATES PATENT OFFICE.

ANDREW J. SPINNER, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-HALF TO CHARLES F. CLEVELAND, OF SAME PLACE.

PROCESS OF CONVEYING REMEDIES TO SEAT OF DISEASE.

SPECIFICATION forming part of Letters Patent No. 361,599, dated April 19, 1887.

Application filed June 3, 1886. Serial No. 204,015. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. SPINNER, a resident of Indianapolis, Marion county, Indiana, have made certain new and useful Improvements in Processes of Conveying Remedies to the Seat of Disease, a description of which is set forth in the following specification.

My invention consists in a new method of conveying an antiseptic remedy—such as carbolic acid—by means of an impalpable powder or dust inhaled through the mouth or nostrils, so as to reach the parts which are affected by catarrh or any kindred disease. For this purpose I use as a vehicle any harmless material which is ground to a sufficient degree of fineness—such as slippery elm or licorice-root—and to this powder is added a sufficient quantity of the solution of carbolic acid, or powdered crystals thereof, the whole being thoroughly mixed or triturated in a mortar until every atom or part of the powder is thoroughly impregnated with the remedial agent.

The compound thus prepared is put up for use as follows: A small quantity, three or four table-spoonfuls, is deposited upon a small piece of cotton cloth or other suitable material, preferably of double thickness, and the ends are then caught up and tied in the manner of a small pouch, ball, or bag, so that the only means of escape for the remedy is in the shape of an impalpable dust passing through the texture of the inclosing-cloth. Such a bag held in one hand and struck or snapped with the thumb and finger of the other will permit a small quantity of the mixture to escape in the form of a fine powder or dust, resembling smoke, and this being inhaled or drawn up through the mouth or nostrils will pass through and into all the nasal and aural passages and air-cells of the lungs, and the healing agent conveyed by means of this fine dust will settle upon and attack the diseased parts, destroying the germs and preventing new formations, and enable the tissues to heal rapidly.

In the drawings, Figure 1 illustrates the method of using it. Fig. 2 shows the ball itself.

I am aware of the Listerian process of the dissemination of carbolic acid in the form of a spray, destroying the poisonous germs in the air about the exposed tissues when surgical

operations are being performed, and do not claim the same as my invention. My invention, however, consists in carrying the atoms of the antiseptic agent through the medium of an impalpable dust escaping from its confinement through the cloth tissues of the bag when struck or snapped suddenly, as described. I thus use the dust as a vehicle for the remedy, instead of the spray as discovered and put into practice by Professor Lister. The atoms which escape through the tissues of the cloth and are inhaled into the nostrils are not to be confounded with the catarrh-snuffs so commonly used, for those snuffs or powders clog the passages and have grit and dirt which retard the healing they are designed to accomplish.

The impalpable atoms which convey the remedy in my process are intended to be inhaled through the mouth into the lungs, as well as through the nostrils, and are so minutely subdivided that such inhalation through the mouth is not only practicable, but no dirt or grit, so common in catarrhal snuffs, is carried into the air-cells of the lungs at all—practically the only thing carried being the healing agent itself, inasmuch as the particles which issue from the bag, when struck, are so fine as soon to be lost to sight in the air. These particles will not fall, but will rise like smoke and remain suspended in the air, and are drawn into the mouth and lungs with the air in ordinary respiration.

Heretofore powders have been used through injectors, projectors, and syringes, and introduced into the nasal and bronchial organs by the agency of compressed air, and by what are known as "powder-blowers;" and insufflators have also been used for the same purpose. In devices of the class above mentioned the powder is blown through nozzles adapted for the different organs and diseases—such as for the nose, throat, ear, eye, and the like—and the tubes or ducts are inserted into the respective organs. I do not consider it necessary to here describe the different diseases of these organs for which powders have been employed, my purpose being merely to show that they could not be used in an aerated condition and inhaled with air by the patient; nor can they be forced by the old method through the respective organs without violence or injury

thereto. The reason why the previous devices cannot be used or applied for delicate purposes, and the powder cannot be inhaled from them, is that the said powder is blown or forced out in volume or in a heavy thick spray. Take, for example, dry meal or flour, force or blow a volume of either down your throat through an injector or syringe, or up your nostrils, and you will discover that it has an unnatural effect, and that a large portion of the powder injected will be returned or blown back by the resistance of the parts, and the portion remaining in the nasal organs or throat will lodge in the natural pockets or cavities thereof, or upon other portions of the membrane, in lumps, thereby preventing the remedy from reaching the diseased parts, and is not equally distributed over the surface of the membrane. Should my healing-powder be used in like manner, (which it is with the devices above referred to,) its object would be entirely defeated, it not being introduced in an aerated condition, and thus obstruct the real object of the remedy or only partially effect it. All such devices I disclaim.

In my method of introducing the powder to the parts affected it operates entirely different from any of the methods above referred to.

The powder by my method springs through an innumerable number of interstices of the fibrous material of which its receptacle is composed, and is caused by the concussion of a slight tap or blow upon the said fibrous bag, and in this manner is at once thrown into the surrounding air, permeating it thoroughly before it is inhaled, and the particles of this powder are so minute and impalpably fine that they are held in suspension in the atmosphere and readily inhaled through the natural organs and channels until every air-cell thereof is reached. Should any of the natural channels be impeded or stopped up by disease, the remedy will touch the part so diseased, and each concussion and additional inhalation will cause the powder to penetrate farther, until the whole channel and parts affected will be cleansed and purified.

Another great advantage of this method of introducing the powder is that it is uniformly commingled with the atoms of air, and in same condition will pass into the respective organs, so that it is uniformly distributed over the surface of the membranes and prevented from lodging in cavities or irregular surfaces, as would be the case where the powder is injected in volumes. Again, by inhaling it with the air you naturally breathe, the impalpable powder or dust impregnated or charged with carbolic acid or other antiseptic being liberated in the adjacent or surrounding air, as previously explained, will be efficacious in the treatment of neuralgia, eye disease, deafness, &c., by radically removing the germ or cause of said disease—viz., the obstruction of the statia tube leading from the nostrils to the ear, and the ducts from the cavities under and over the eye to the nostrils, thereby giving the confined or

pent up mucus a natural outlet through the nostrils, thus assisting nature; and it will be evident that such effect cannot be gained by external applications of forced artificial inhalation. Powder forced up the nostrils or into the posterior nasal cavities from behind the soft palate or down the bronchial tubes meets naturally with resistance, and is either forced back or chokes up the passage, and therefore does not reach all the air-cells of the head or throat, bronchial tubes, and lungs, as does my method.

By incasing this remedy, as described, I am enabled to supply a large quantity of the remedial powder in a cheaper form than has been heretofore introduced; and the bag or pouch does not require refilling and renewing constantly, while, on the other hand, the injectors, atomizers, and insufflators do require such renewing and refilling, and when contained within any of these devices the particles of the powder are agitated and exposed, and admission of air is allowed through the body thereof, all of which lessen in a great degree the strength and healing quality of the powder.

A powder forced by air-pressure or blown into the nostrils or throat only reaches as far as the artificial force will carry it; but when my method is applied the powder, commingled with the air, reaches every part where the air we breathe would penetrate.

To mark the differences between the methods before mentioned and mine, I will say that I liberate the powder or impalpable dust charged with carbolic acid or other antiseptic remedy into the open air before it is inhaled, while the old method forces the remedy into the organs by means of probe, tube, or nozzle passages, and the said remedy is not taken up with the air naturally inhaled.

What I claim as my invention, and desire to secure by Letters Patent, is the following:

1. The method herein described of impregnating the open air with impalpable powder permeated or charged with carbolic acid or other antiseptic remedy, which consists of, first, dividing the powder infinitesimally, and then liberating it by striking the receptacle slightly in proximity to the mouth or nostrils, whereby it can be inhaled or drawn in, in the manner set forth.

2. The method herein described of imparting antiseptic remedies to the system, which consists in impregnating a finely-divided medium with the same, confining said medium in a receptacle of fine fabric, and liberating an impalpable portion of the antiseptic medium by striking the receptacle while held in close proximity to the nostrils or mouth during inhalation, substantially as described.

In witness whereof I have hereunto set my hand this 31st day of May, 1886.

ANDREW J. SPINNER.

Witnesses:

C. P. JACOBS,
HATTIE MURRY.