about them. To conserve and repair is almost as beautiful as to create." Such a tribute to medicine from the cynic of cynics is high praise, indeed, but well merited by such a master mind of surgery as that of Malgaigne.

A SUCCESSFUL TREATMENT FOR ACUTE INFECTIONS OF THE AIR-WAYS.

BY IRVING WILSON VOORHEES, M.S., M.D., NEW YORK.

Adjunct Professor, Fordham University.

ANY acute infection of the respiratory tract, whether it be "in the head" or "on the chest" is conveniently described by the layman as "a cold." Perhaps, now that custom seems to have justified the usage, this is as good a general term as any other. After all, it is not the word, but the *thing*, with which we must concern ourselves.

It is a common observation in esoteric circles that "a cold must run its course." If the truth must be told, there is ground for a lurking suspicion that the profession has not hotly contested this assertion. A well-known professor of therapeutics was once heard to tell his class that "the public does not come to us any longer to be relieved of a cold because it knows that we cannot cure this annoying condition." The profession is now very sure that a cold is something more than an annoyance. It is a real danger, because it may have as a cause the diplococcus of pneumonia or the bacillus of tuberculosis, masked by the micrococcus catarrhalis. A cold is an acute infectious disease and should never be neglected. If its tendency to spread were widely understood, it would doubtless become one of the reportable diseases set down in the Board of Health lists along with scarlet fever and diphtheria. To be sure, most people recover from a simple rhinitis or laryngitis or bronchitis, but who can say that these do not furnish the soil and lay the stratum for many other diseases, both acute and chronic? Have we not, as physicians, been negligent in studying the bacteriology of the secretions in rhinitis and bronchitis? Have we consistently tried to shorten the course of these air-borne infections, or have we made any concerted effort to check their spread? The Commissioner of Health for Greater New York City, Dr. S. S. Goldwater, ought to be heartily supported in his efforts to prevent droplet infection in public conveyances. It may be an impossible task, but it is worth trying. Perpetual warfare ought to be waged against the universal ignorance of those who cough and sneeze in public places without protecting the face with a handkerchief. Spitting on the floor, while disgusting, is in reality much less dangerous to the public health, than this sputtering of fresh germ-laden spray into the air-ways of the defenseless passengers. The pervading odor after a sneeze gives a vivid

representation of the great number of persons who can be infected from one source alone. No wonder that an entire audience may "get a fit of it" after some thoughtless person has sprayed the entire atmosphere. When the light is properly placed, as, for instance, in a direct ray of sunshine, a veritable shower of spray after a sneeze may be seen to disseminate itself in all directions. It is a momentous fact that almost all of the acute infectious diseases of childhood—scarlet fever, measles, diphtheria, etc.—first manifest themselves as mucous membrane diseases by acute catarrhal symptoms from the nose, watery eyes, or plaques, patches and spots in the mouth and pharynx.

When a cold is once under way what can be done to shorten its course or to prevent its spread to others? Many authors have written widely (perhaps more widely than wisely) on this subject, most of them from the general standpoint of internal medication—the use of quinine, belladonna, calomel, etc. When studies of nose and throat conditions, as special entities, had their first great beginnings a promising forward step was taken. Unfortunately, however, much of the local treatment has consisted of sprays and inhalations. These, while of undoubted value, are not sufficiently concentrated, or of sufficient strength, to be markedly bactericidal. As a result of the physician's lack of interest or inability to produce results, self-medication at home has become widely prevalent. Such medication is often due to the tender consideration of an obliging druggist, who feels in duty bound to placate a customer by handing over the counter various drugs, such as quinine, aspirin, salol, phenacetin, rhinitis tablets, troches, lozenges, etc. If a cough becomes so severe as to disturb markedly the course of a patient's daily life some compound cough mixture is taken. This upsets the stomach, and the last state of such a man is worse than the first. There is no doubt that constitutional treatment must often be combined with local measures, but not in the majority of cases, for just so soon as the local condition is improved general symptoms quickly clear up. Now it would seem that the logical method of treatment is not to administer drugs by stomach, if drugs are to be used at all, but to apply such remedies directly to the site where action is desired, that is, into the nose in acute rhinitis, or into the pharynx, larynx, and bronchi when these parts are the location of active inflammation. In any case, much depends upon the germ with which we have to do. We must not forget that vaccines are also sometimes indicated when the predominating germ can be isolated.

In dealing locally with acute infections in singers, the two remedies most commonly used by specialists are silver in some form or iodoform. The silver salts are all irritating when used strong enough to be efficacious. Many patients object strenuously to having these preparations introduced into the larynx, and not

without reason. Iodoform, in ether or in oil, is a rather powerful antiseptic, but is likewise irritating, and its persistent, unpleasant odor on the breath and in the clothing is a great disadvantage.

During the past three years I have been using, with remarkable results, the well-known aromatic principles,—oil of cloves, oil of cinnamon, thymol, eucalyptol and menthol, not in spray form, but applied directly to mucous surfaces. The physiologic actions of these are commonly set down in text-books as analgesic, anesthetic, stimulant, carminative and bactericidal. They have all been used by rhinologists for many years, but not in a way to derive most benefit from them. Knowing how active these agents are, I began to use them in cases of acute inflammation of the upper air-ways.

My first patient came in at five p.m. on a winter afternoon, absolutely aphonic, almost panic-stricken with fear that she would be unable to keep her engagement for the following night in an operatic part which makes great demands upon the voice. She was told how impossible it would be for her to sing, but argument was of no avail. She "simply must go on." She objected strenuously to the ordinary forms of treatment and asked if there was not something else which might be used. I thought of the possibilities of menthol-oil, and asked if she would like to have it tried. To this she assented. After thoroughly spraying a 2% sol. of cocaine into the pharynx and larynx, about 1 c.c. of a 10% solution of menthol in sterile liquid petrolatum was instilled into the trachea. There was considerable reaction for a few moments, after which a cooling effect was experienced, with great immediate relief of the cough. On the following morning the patient could speak aloud in half voice. Another injection was then given, followed by a third about seven hours later. To my surprise, the patient was able to take her part by a process of "singing over" her difficulty,—a procedure, by the way, which should always be discouraged, as it may do permanent harm to the voice.

Since that time I have used instillations of menthol in oil, 5 to 25%, in all such cases. Not more than five such treatments are ordinarily necessary. One is given in the morning, one at night, at intervals of from eight to twelve hours. Some patients complain rather bitterly of burning. In such cases a few drops of a 10% cocaine solution should be instilled first, followed in a few minutes by the menthol-oil preparation.

In acute bronchitis it is astonishing how effective this treatment may be. Its analgesic action relieves the cough, its stimulant action increases expectoration, its carminative action produces hyperemia, and, finally, its bactericidal action makes it a satisfactory germ destroyer. The oily vehicle is of especial value in soothing an irritated mucous membrane. Treated in this way, a case of simple acute bronchitis, not due

to the pneumococcus or streptococcus, should not last more than 72 hours.

It is of the greatest importance that the instillations should be carefully and accurately placed.

If there is any tendency to gag or vomit the oro- and laryngo-pharynx should be sufficiently anesthetized to reduce all reflexes to a minimum. In acute laryngitis with swelling, redness and exudation from the false and true cords the drops should fall directly on the rima glottidis during phonation. If it is desirable to reach the trachea and bronchi directly, as in sub-glottic infections—tracheitis and bronchitis—the patient is asked to exhale through the mouth. At this moment the patient holds his tongue with a bit of gauze in the right hand, while the specialist uses a laryngoscope with his left hand, the right holding the laryngeal syringe. As soon as exhalation is well under way the dropping is begun, and the patient is asked to inhale through the mouth. This opens the larynx quickly and a good quantity of the medication is taken deeply into the bronchi.

As for the syringe, I prefer the glass laryngeal model commonly used in the clinics of Vienna and Berlin. Unfortunately, however, these are likely to be broken in sterilization. The best syringe I have seen thus far is the Record, which is imported by G. Tiemann and Company of New York City, but it is very expensive. I am now using an all-metal 10 cc. syringe, which is very serviceable, but has the disadvantage of not allowing the contents to be seen. Unless one is very careful, air will get in while filling the syringe, and the sputtering during instillation becomes very troublesome in securing accuracy of placement. It is well to have one or more extra cannulas to save time while sterilizing those already used. In any case a steady hand and a practised eye are necessary, for, if the cannula touches any part of the larynx, or if the drops fall in undesirable areas, violent coughing will ensue and most of the good effect will be lost. About one to two c.c. are usually quite sufficient, but more can be used with impunity, as the treatment is absolutely harmless.

These applications, as already mentioned, should be made at least twice daily, or, in bad cases, three times. The effect lasts for from two to three hours. At first there is a pungent, irritating sensation that sometimes frightens the patient, leading him to believe that acid or some very irritating drug has been put into the larynx by mistake. It is important, therefore, to explain beforehand, just what is likely to take place. Coughing is likely to be rather violent for a few minutes, until the air breathed in begins to aid in the evaporation of the menthol. The secondary effect then begins, and there is a cooling, "open" sensation—a feeling of freedom and well-being.

In acute rhinitis the patient is asked to lie down with the head far extended over the edge of a couch, and the drops (usually a five per

cent. solution is preferable) are instilled into the nose with a dropper, care being taken to point the dropper upward in the direction of the eyes. This provides for the thorough distribution of the preparation over the mucous membrane surface, before it falls into the throat. Naturally if the nose is swollen shut, it must be sprayed first with a cocaine-adrenalin solution in order to shrink the erectile tissue, otherwise the oily preparation will not pass in.

In pharyngitis one should apply the menthol-oil solution by means of a post-nasal applicator in the usual manner. It is important here that no force be used, but the applicator should be moved from side to side as much as possible in order to distribute the drug over the entire post-nasal surface.

I have found the drops also of use in earache when such a remedy is indicated. In furunculosis, the canal can be packed with a strip of gauze soaked in a 10% menthol-oil solution. This will keep the walls of the canal separated and will help the pain and inflammation, especially in the first stage of the condition, or after pus has been evacuated and it is desirable to keep something in the canal.

Thus far I have used this treatment up to 30% strength in two cases of incipient pulmonary tuberculosis. Relief has been marked, and the number of staphylococci and streptococci has been greatly reduced. There seems, however, to have been little effect on the tubercle bacillus itself. After each instillation the patient lies on the affected side for five minutes to aid in placing the drops where their presence is most desired. It is, of course, still too soon to determine any lasting value from the use of this preparation in pulmonary tuberculosis.

CONCLUSIONS.

1. The course of acute respiratory diseases can be greatly shortened by direct instillations of aromatic drugs.
2. Of these a solution of menthol in oil is most effectual.
3. In many cases the quick result is striking.
4. The procedure is absolutely harmless.
5. It is of the highest value in treating the throats of professional singers.

HEALTH DAY IN CLEVELAND.—The twenty-fifth of October was celebrated in Cleveland, Ohio, as "health day." Pamphlets containing rules of health and information regarding prevention of disease were distributed by the municipal authorities. Moving picture theatres, newspapers and other publicity agencies co-operated and the results appeared so satisfactory that it is expected that a day will be set aside annually for such a celebration, not only in the city but for the entire state.

Clinical Department.

STUDIES IN SPEECH DISORDER.

No. 2.*

PROGRESSIVE MUSCULAR ATROPHY—CASE AND TREATMENT.

By WALTER B. SWIFT, M.D., BOSTON,

In Charge of Voice Clinic, Boston State Hospital, Psychopathic Department; Instructor in Neuro-pathology, Tufts Medical School.

ABSTRACT I.—RARE CASE, USUALLY NOT CONSIDERED TREATABLE. II.—SHOWN TO BE P. M. A. III.—IMMEDIATE RELIEF.

AN interesting case called upon the Voice Clinic for help in speaking and relief from an annoying and rather unusual affection of the throat musculature. The case is of interest in two ways: (a) it is one generally considered not amenable to treatment, and (b) it is an illustration of the extreme variety of lesion which merely from a defect of speech are brought to this clinic.

It also sets an example to those dealing with speech defect to exercise their ingenuity in every effort to try to relieve these too often considered incurable cases—even when but slight relief is possible—without permanent cure. Usually such cases go untreated—and many of them when marked relief is possible. Witness the stutter treatment of a few years ago; witness the occasional expulsion from school for mere speech defect; witness the years of delay in education that even some slight speech inability—the often easily cured case—imposed upon the young quite needlessly. Such truths lead us to look upon the relief of speech defect as no small matter, and it justifies the many years of study needed in this subject in all its phases—muscle, nerve, brain and function and the educational side—and give ground for a righteous indignation against the "incompetents" who dare enter the field only one-sidedly prepared.

Let me present the case and discuss the treatment afterwards:—

CASE: Man, 51, Irish cooper. Complaint: Weakness of leg and indistinct speech.

Present Illness. Began at night ten months ago with sudden cramp in his right leg. Soon the foot and ankle became weak. About seven months later indistinctness of speech came on gradually. Not now growing any worse. Weakness of legs increasing. Has left work for two weeks on account of it.

Past History. Measles as a boy. Influenza at 36. Otherwise never ill.

Family History. Grandparents unknown. Father died 75, cancer. Mother died 52, tuberculosis. No history of speech defect.

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