vital depression for some days with a sub-normal temperature, but recovery was uneventful; twenty-eighth day, 14,000 whites.

Remarks.—Ordinarily a completed crisis in pneumonia appears to convey immunity for the time being at least, although subsequent attacks not infrequently may occur after a longer or shorter

interval. In typhoid fever, on the other hand, relapses are common, second attacks few.

Regarding the frequency of relapse in pneumonia there is considerable variance between the statements of different writers, and many of the best authors pass over this subject with little or no reference. Although rather technical, still it has interest from the clinical point of view, and was investigated by Grissolle and Briquet among the earlier writers, later by Wunderlich, Ziemssen, Flint, Wilson Fox, Osler and others.

From the small number of cases mentioned, however, it may be inferred that this incident has been found to be a rare one when proper discriminations have been made between true relapse and those other not uncommon conditions which delay convalescence in pneumonia. Often the process extends to a second or a third lobe during the active stage of the disease. Delayed resolution is a frequent source of recrudescence. Secondary pleurisy, pericarditis or empyema may add new dangers. But these conditions are quite apart from the one now under consideration.

In my own experience I can recall but two or three instances of relapse in pneumonia, and the one

now reported is the most typical and striking. All recovered.

For many years I regarded the dictum of Flint as absolutely correct. He says: "A relapse never takes place." This is so far true that the exceptions may be considered to prove the rule.

The records of the Boston City Hospital show that relapse is an uncommon event. Sears and Larrabee,² in an analysis of 949 cases of pneumonia, admitted between 1895 and 1900, found but 8 cases, or less than one per cent. Two of these died, one from exhaustion two days after the second crisis.

A FORM OF PRESSURE ANEMIA OF THE UVULA WHICH MAY BE MISTAKEN FOR MEMBRANE.

BY W. P. COUES, M.D., BOSTON.

This condition of the uvula has come to my notice in several cases of severe throat infection when the tonsils have become greatly swollen, so that one or both impinge on the side of the uvula, almost blocking up the throat.

On gently separating the tonsil from the uvula a white spot is seen, which may, in a hasty examination, particularly if diphtheria is suspected, be mistaken for membrane.

Continued pressure of the tonsil on this spot may even cut off the circulation from that part of the uvula and lead to a superficial necrosis.

On more careful examination it will be seen (1) that the white spot is formed at exactly the point of impact of the tonsil and uvula; (2) it is not raised above the surface, and (3) it does not bleed when touched.

This condition occurs generally, I believe, in streptococcus infection of the throat, when a non-diphtheritic membrane is perfectly possible.

ANTISEPSIS OF THE CLINICAL THERMOMETER.

BY WILLIAM H. DEVINE, M.D., BOSTON, MASS.

In these days of antiseptics, when the profession is devoting so much time to the detail of antiseptic methods, it has often occurred to me that too little attention is paid to that important instrument, the clinical thermometer. It presents great opportunities for conveying germs, and while the surgeon may carry out a perfect technique for his surgical antiseptics, his results may be impaired by neglecting this germ carrier. Owing to its fragile nature it cannot be sterilized by heat, like most surgical instruments.

In hospitals, or at our offices, facilities are offered for cleansing, by immersing the thermometer in a vessel containing carbolic or other solution, immediately after using, this being the ideal treatment.

The busy general practitioner can adopt the same method, but it necessitates carrying the antiseptic agent with him and preparing it on every call, which is inconvenient and impracticable. I think the usual method employed in active practice is to thoroughly cleanse the instrument, before and after using, in cold water, preferably a running stream or in soap and water.

¹ Flint's Practice of Medicine, Fifth edition, p. 173.

² Med. and Surg. Reports, B. C. H., 1901.

When the price of thermometers has been much reduced, most of our patients will have their own thermometers; this will render the care much easier than if one be used for different patients. But even in those ideal days, the practitioner will always have his transient patients who do not possess such an article, and some practical method is necessary to keep the thermometer as near surgically clean as possible.

Not much, to my knowledge, has been written on this subject in standard text-books. Perhaps the importance of cleansing the instrument is so evident to physicians that it may be the reason why so little is written pertaining to it. In consulting several standard modern surgical works, in only one did I find mention of this subject, and then but three lines were devoted to the matter. In another work, about fifty pages were given to an admirable monograph on antiseptics, but no reference made to the thermometer; yet this instrument plays an important part in the care of the surgical as well as the medical patient.

It seems to me that the best method to keep the thermometer free from germs is to copy the hospital method of placing it, while not in use, in an antiseptic solution; this necessitates carrying the agent used.

It is not practicable to carry antiseptic solutions except in a thermometer case. I have found from experience that alcohol is the best basis for the antiseptic agent. For several months I carried the case filled with alcohol; before and after using the thermometer, it was washed in cold water, preferably running water from faucet, and after use placed in alcohol in the case.

For the past two years, I have used corrosive sublimate, and alcohol 1-5000. The only objection to alcohol is the odor, but this objection is overcome to some extent by flavoring the solution with *ol. gaultheriæ* (one drop to four ounces of solution is sufficient). If the thermometer is carefully handled, no alcohol being spilled, there will be no perceptible odor.

The bichloride solution is not as suitable for metallic cases as it is for the ordinary hard rubber, but may be used. Alcohol with some suitable antiseptic that has no effect on the metal, such as a solution of thymol, soda salicylate and alcohol of required antiseptic strength, is preferable.

The objection to plain alcohol is its doubtful efficacy as an antiseptic. I have had an ordinary cheap thermometer immersed in 1-5000 bichloride in absolute alcohol, in a hard rubber case, several weeks at a time, and found no appreciable effect on markings of the thermometer. It may in time impair the markings on glass, but as yet I have had no difficulty in this direction.

The solution has apparently no injurious effect on the hard rubber case. No doubt the strength of corrosive sublimate could be increased to 1-2000. Possibly alcohol increases the antiseptic effect of corrosive. I do not consider the other antiseptic agents, as I deem this the best for the purpose. Alcohol if spilled on the clothing dries quickly; it is so volatile that the odor rapidly disappears. It has no special injurious effect on ordinary fabrics, which cannot be said of carbolic, permanganate and other ordinary antiseptics. When convenient,

other antiseptics may be used to supplement the solution for cleansing the thermometer before and after use, and the thermometer should at least be cleansed in clear cold water before and after using. Solution in the thermometer case should be changed quite frequently.

The antiseptic effect of bichloride is so well known that we need not discuss its qualities as compared with other antiseptic agents. The "United States Dispensatory," the eighteenth edition, says that "corrosive sublimate is one of the most powerful of known germicides, a solution of one part of it in twenty thousand of water being sufficient to kill micrococci and bacilli in active growth; whilst a solution of one thousand will rapidly destroy bacterial spores. According to Koch, as little as one part of corrosive sublimate in three hundred thousand of a proteid solution will prevent the generation of the spores of the bacillus of anthrax."

The temperature should never be taken by mouth in diphtheria, syphilis, pulmonary tuberculosis, typhoid and many other contagious cases unless the most rigid antiseptics be employed; in fact, I think the temperature should never be taken by mouth or rectum unless one is sure that the thermometer is practically sterile. I have never known of disease being transmitted by the thermometer, but transmission of disease from unclean thermometers is within the range of possibility. While I do not claim that the method advocated procures thorough sterilization, I think it is far safer than the ordinary method used.

To sum up, I would say that the practical methods of eliminating transmission of disease by thermometer are:

- (1) Separate instrument for each patient.
- (2) The hospital method of keeping the thermometer immersed in antiseptic solution, when not in use.
- (3) Keeping in the thermometer case a solution of bichloride and alcohol (1-5000 to 1-2000).

Medical Progress.

REPORT OF PROGRESS IN LARYNGOLOGY.

BY A. COOLIDGE, JR., M.D., BOSTON.

PARAFFIN INJECTIONS.

DURING the past year the subcutaneous injection of paraffin to correct deformities, especially of the nasal bridge, has been several times reported. Great care must be taken to secure a perfectly aseptic mixture of fats and to inject it at a proper temperature. If too fluid there is danger of fat embolism. In one case a portion of the injected fat reached the upper eyelid, and was removed with difficulty; this can be prevented by firm pressure at the root of the nose. A number of cases are reported by Harmon Smith,¹ with the suggestions and precautions which he has formulated. It is absolutely essential to have the paraffin melt at a sufficiently low temperature to ensure ready injection. A special paraffin designed for these injections melts at 110° F., and is

¹ Med. Rev. of Rev., Sept. 25.