

Medical Matters.**THE ABSORPTION OF DRUGS.**

RECENT researches have proved that the stomach has practically no power of absorption, except for very concentrated solutions. Two German observers have found, independently, that almost the whole quantity of water drunk by a dog with a duodenal fistula could be recovered through it, very shortly afterwards. The practical result of this and many other observations is that the intestines, and not the stomach, must be considered to be the absorbing organs, and that the rapidity with which any drug is absorbed will depend on the speed with which it is passed from the stomach into the intestines. Starting with this knowledge, further experiments were made on the conditions favouring, or otherwise, a speedy evacuation of the stomach, which have a very important bearing on the best time for administering medicines. They consisted, in principle, in giving some easily recognisable drug, after which, at varying periods, the stomach was washed out and an analysis made. The following rules have therefore been formulated:—A dose of medicine (1) will leave the stomach and be absorbed most quickly when taken fasting with plain water; (2) less quickly when given with soup, milk, wine, etc.; (3) still more slowly when taken with liquid after food; (4) and most slowly after food without liquid. Obviously, then, to ensure the quickest possible absorption of a drug the indication is to administer it on an empty stomach with a glass of water. Although it would probably prove useless to give morphine for a case of biliary colic, or anti-pyrin for a headache, by the mouth, shortly after food, the same treatment would succeed if the patient's stomach were empty. Though the quantity of a drug absorbed in the stomach may always be small, it is increased by delay, and diminished by rapidity of evacuation into the intestines, especially when diluted. In atony or pyloric obstruction, if drugs must be given by the mouth, they are given in strong alcoholic or spiced solutions which increase absorption from the stomach itself. It is interesting to observe how many discoveries at the present day are merely supplying a scientific explanation for practical facts which have been known for centuries.

FLIES AND TYPHOID FEVER.

A COMMISSION was lately appointed to visit the American military camps and inquire into the cause of the epidemic of typhoid fever in those camps. They inspected the camps at Chicamauga, Huntsville, Fernandina, and Jacksonville, and as a result of the investigation, reported that in their opinion the common house-flies which swarmed in all the camps, and had unimpeded access to the excreta and ingesta of the soldiers, were the active and immediate agents for the spread of this disease among the troops, the disease having been originally brought to the camps by the volunteers from their homes. The commission give in their report certain reasons for entertaining this opinion. The opinion at present has merely the weight of a plausible theory. The reasons given for entertaining the theory are sufficient, and the theory in itself is sufficiently attractive, to make such experiments, which should not be difficult, desirable. The same theory was adduced to account for the scattered cases of cholera which occurred in the city of New York, in September of 1892, when that city was quarantined against the epidemic of cholera then prevailing in Europe. But this theory in regard to cholera was based upon the positive results of careful laboratory experiments made in Europe by Simmonds and Sawtschenko, experiments which showed, not only that the house-fly might be a carrier and disseminator of the cholera bacillus, but also that those bacilli are taken into the body of the fly, pass through it without loss of their active properties, and, moreover, in all probability, actually multiply during their sojourn there. The theory as to the spread of typhoid among the volunteers by means of flies, has no real bearing upon the question of fixing the responsibility for the high percentage of sickness among the soldiers, and the neglect of camp hygiene, but it emphasizes the fact that there was an astonishing neglect of hygiene in many American camps. It is, at least, some excuse for this fact, that the United States practically, until last year, had no army, and, therefore, no special organization prepared for war and for the many contingencies which warfare involves, at the present day. The terrible loss of life which occurred in consequence of the defective arrangements of the medical service has emphasized the fact that one great need of all modern armies is a thoroughly equipped and organized nursing service.

[previous page](#)

[next page](#)