

THE SPHERE OF DRUGGISTS' WIVES AS AFFECTING
PUBLIC HEALTH.*

BY MRS. J. M. BLADEN.

The need for thorough sanitation, and for more efficient measures for the prevention of disease, in fact the demand for general conservation of health, is apparent to everyone. Just how much we, as members of the American Pharmaceutical Association, may be able to accomplish along this line becomes of special interest to us.

It seems to me that the druggist's wife has by reason of her knowledge of matters pertaining to health, and her position of more or less influence, peculiar advantages for altruistic service in her community. Certain it is that, as between man and his mate, the latter has opportunities vastly superior to his. And I might even say, here in your presence at least, without fear of my sanity being questioned, that under existing conditions, not even the physician himself exerts more influence towards health conservation than may the druggist's wife, or any equally well-informed and wide-awake woman. For be it remembered, that conservation of health comprehends prophylaxis or prevention of disease only, and does not include curative measures, to which the present-day physician is largely confined.

To learn the sphere of the druggist's wife in this regard, therefore, is only to discover the possibilities at hand for the prevention of disease or the conservation of health, which, after all, spells normal economic efficiency, mental and moral efficiency, the sum total of human happiness—the ultimate good of life.

Very much brain energy has been expended, and valuable magazine space contributed, to the discussion of the conservation of our national resources, and yet withal, mention has scarcely been made of the nation's most vital resources, in fact the most valuable asset from a purely economic standpoint, which is the health of the individuals comprising the nation.

The food and drug laws are vital and much discussed subjects, generally recognized as being economic measures designed for conservation of health. The methods adopted for enforcing these laws in the past, however, have been more or less discouraging, as they have not always been in accord with the securing of the best results from a public health point of view, and even in states where the control of laws regulating the nature and purity of drug products is in the hands of the State Board of Health, the tendency has been to discourage rather than encourage adequate and satisfactory control of all medical supplies.

Some indication of the nature and variability of the products sold as medicine may be had from a comparative study of Hygienic Laboratory bulletins embodying in the form of annual compilations a "Digest of Comments of the Pharmacopœia of the United States and of the National Formulary."

The prevention of disease may be, indeed must be, accomplished in a threefold manner: First, by destruction of pathogenic or disease-producing germs; second, by preventing invasion of the human organism by such germs as may escape destruction; and third, by fortifying the body against the lethal action of the germs which, having escaped destruction and evaded the guards, do gain entrance.

Since the germ theory of disease is established beyond cavil, we may pass to the assumption that microorganisms of the vegetable world do invade the human organism, and such as are pathogenic do produce disease therein. That it is

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possible to destroy innumerable hosts of this vast army of invasion, no one can doubt. Yet many who recognize this fact neglect to observe it in their daily lives with the scrupulous care it merits, and not a few within the range of our influence are still in ignorance of the menace that hovers over them. Upon those of us who do know rests the burden of encouraging the negligent and enlightening the ignorant. The druggist's wife, more than any other, unless it is the doctor's wife, in whom she will usually find a willing comrade, by virtue of her position, must bear the responsibility of inciting to war, relentless, incessant war, against the invaders. At home, in the club, everywhere, let her teach antisepsis, disinfection, sterilization, any and every means of destroying the omnipotent, though to the unaided eye invisible, enemy.

Directly under the woman's influence are the children of to-day, the men and women of to-morrow, and indirectly the unborn generations yet to come.

After all, so numerous are the invading hosts, and so rapidly do they multiply, that to destroy them all is an utter impossibility. While this is no excuse for the cessation of hostilities on our part, and no suggestion is intended, nevertheless it does bring us face to face with the necessity for the second preventative measure.

If we cannot destroy all obnoxious seeds, we can at least do our part towards preventing those which escape destruction from gaining entrance to the soil. They must remain harmless so long as they do not germinate. Having destroyed what you can, see that the balance are not sown. If this is thoroughly done you may be sure that no disease will follow. By cleanliness, by asepsis, by unremitting war on flies, mosquitoes and all germ carriers, much may be accomplished. Avoid contagions, or if called by duty into their presence, sterilize hands and clothing thoroughly, lest you yourself become a germ carrier. The methods are familiar to all of you. Only make them familiar to your less enlightened sisters and much disease will be preventable.

Doubtless your thoughts have outstripped my language and already arrived at the suggestion I must now confront. If it be impossible to destroy all germs, it is no less impossible to dodge all those still surviving. What then? Are we forced to the conclusion that with all our skill, disease is yet and must continue to be a necessary evil? No. There is one more resource—the third and last method of prophylaxis, viz.: the fortification of the body against the action of such of the enemy as do finally gain entrance. By reason of the campaign of education promulgated by Pasteur and Koch, together with many lesser celebrities within the last decade, few there be who have not received some instruction concerning the two methods of health conservation already mentioned, but, strange to relate, the third and by no means the least of the methods has been sadly neglected. Few, even of the elect, appreciate the tremendous importance of the indomitable army of the defence which benign nature has graciously provided and installed within every human organism for its protection against disease. But for this protection no individual could long survive.

Not a single person reaches mature life who has not ingested or inhaled pathogenic germs galore, or otherwise suffered invasion by the enemies of health. Yet not all succumb to disease. It is evident, therefore, that entrance of pathogenic bacteria into the human organism does not necessarily mean that disease always results from such entrance. How shall we account for this? By the presence of the aforementioned army of defence, which is composed of antibodies, phagocytes, and what not blood elements whose very names ought to insure protection, the technical nature of which does not concern us here, but all of which are designed to destroy pathogenic germs or inhibit their development in the system, and thus

protect the body against the invading forces. Here then is war—a world war, not conceived nor declared by man, but waged within him, and for which not even monarchs are at fault.

To abandon the metaphor, the vital resistance of the one is reduced until he succumbs to disease, while in the other, vital resistance is normal and the pathogenic germs are overcome. Lowered vital resistance means susceptibility to disease. Such susceptibility may be hereditary, as in the case of children born of tubercular parents. Like other children they must inhale tubercular bacilli in order to acquire the disease, but unlike the majority of others, their blood is weak in defensive elements and once having inhaled the bacilli they are doomed.

I believe, as yet, they have not been able to prove tuberculosis to be hereditary, but children born of tubercular parents seem to inherit a marked susceptibility for the disease. In many cases, however, susceptibility, which is the opposite of immunity, is not hereditary but readily acquired. Keep the vital resistance up to normal and few disease germs will be able to flourish within the body sufficiently to produce disease.

How can this be done? Largely by the exercise of hygienic measures and common sense. Physical exposure to sudden changes of temperature or long-continued extremes lowers vital resistance. Profound fatigue of body or mind has a similar effect. Intemperance of food or drink, excessive indulgence of any of the appetites or passions, habits of uncleanness, irregular rest or sleep, all produce marked susceptibility. Worry is one of the most potent factors for the induction of disease, and is so recognized by the medical profession. Any and every thing that tends to reduce mental and bodily vigor contributes towards the success of invading enemies of health and mark one who indulges therein as a traitor to himself and to society.

A knowledge of these facts, even though superficial, once disseminated among the masses would serve to prevent much of the disease and distress now suffered.

Who is better qualified and more worthy of such a mission of mercy and help than the druggist's wife and the members of the American Pharmaceutical Association?

HOW CELLULOID MAY BE MANIPULATED.

I have used celluloid sheet for a variety of purposes where lightness, compactness and transparency were desirable features. Sharp bends may be produced with relative ease by applying a hot iron or other device to the line of the angle. Joints I have and frequently make now with acetone. The two overlapping pieces are held together, acetone is applied from a dropper so as to flow between the surfaces, and these are then pressed firmly together. Adhesion results very quickly so that usually no mechanical holding device is necessary. Irregular bends, especially at junction points, can likewise be made by allowing sufficient acetone to be absorbed by the one part so that it becomes plastic and can be molded into contact with the other part by pressure of the fingers. In this way a dust-proof cover can be produced having also more rigidity when completely dry than the one described in your article.

Collodion sheets obtained by cleaning spoiled negative films are very useful and handy for many purposes, and can easily be manipulated and joined by aid of acetone.—HERMAN S. RIEDERER, Baltimore, Md., in *Scientific American*.
