

CONTRIBUTED ARTICLES.
MILK DONE UP IN PAPER.
SUBSTITUTE FOR GLASS BOTTLES.

MILK in dirty bottles is not pleasant to think about—much less wholesome to drink, says the *Literary Digest*. So, as we can't clean them we must destroy them; and as glass bottles are unpleasant and expensive to smash, we must make our receptacles of something cheaper, and easier of destruction. Hence the paper milk-bottle, which doesn't have to be washed, but merely burned up when the milk has been used. In fact, the glass milk bottle must go, we are positively assured by a contributor to the *Scientific American*.

Physicians who are health experts, he tells us, have united in condemning the old fashioned milk-bottle as a pernicious germ-carrier. They are demanding that destructible bottles be used for the distribution of milk in the homes of dairy patrons, so that they cannot be returned to the dairy to be refilled and sent out another time, laden perhaps with germs picked up in the first home. We read: "The first State to declare war on the glass bottle was Pennsylvania, Health Commissioner Samuel G. Dixon sounding the death-knell of the glass bottle in a statement branding it as a menace to health. An order declaring that the glass bottle must go has since been issued by the Health Department Advisory Council. In some communities progressive dairymen have, by voluntary adoption of destructible bottles, anticipated such action as that taken in Pennsylvania. The most common type of the destructible bottle is made of light cardboard which has been coated with paraffin. It is airtight and shuts out all light, the latter being a common enemy to pure or sweet milk. Milk can be kept in a fresh condition in these paper bottles many hours longer than in the glass bottles, an item which will commend the new bottle to housewives generally.

"In connection with the rather general movement against the familiar friend of our back-steps and dumb-waiters, it is of interest to note that a new machine has just been perfected by a Western inventor which will manufacture paper milk-bottles at the rate of five thousand an hour. This machine is 97 feet long and costs over £3,000. It is a radical departure from previous contrivances in that it manufactures the new bottles direct from wood-pulp rather than from a finished paper, as is the case of practically all the containers on the market to-day. This feature enables it to turn out the completed product at a very low cost well within the reach of the average milk-dealer.

It is claimed that the new paper bottle is cheaper in the long run than the common glass bottle in use at the present time.

"Only three men are required to operate the machine, and from beginning to end the milk-bottle is handled only by steel fingers, so that the apparatus meets all sanitary requirements.

The pulp used is what is known as mechanical pulp, but the process does not require exclusively the high-priced paper pulp. In fact, it is said that any

fibrous wood will work as well as the customary spruce, which is fast becoming scarce on account of the tremendous amount of it consumed in this country for the manufacture of paper. Less than half an ounce of wood-pulp is required to make one of the new sanitary bottles and one ton of pulp will produce 60,000 containers.

"The process of manufacture is simple. A steel core is dipped into a tank of raw pulp, and, by means of four clamps, the pulp is pressed around the core and into a seamless body, much as a sculptor would press soft clay into shape with his hands. During this operation the bottle revolves three complete times, the clamps pressing at every one-third turn. Thus the paper and the bottle are formed in one and the same operation. The bottle next passes through a powerful drier and over a stencil cut, which prints on it the name of the milk-dealer, the capacity of the bottle, etc. It is then removed from the core by a steel hand and deposited on a belt-conveyor which delivers it to a machine that crimps on the bottom and top. The bottle is then given a paraffin bath that renders it impervious to liquid or acid and is automatically packed in dust-proof cartoons for delivery to the dealer. The operation is continuous and it takes about eight minutes to convert the raw pulp into the completed bottle."

SOCIAL RECONSTRUCTION.

BY REV. HERBERT ANDERSON OF CALCUTTA.

The War will affect the broad field of human life.

It has already brought many people in every land up against fundamental problems in the realm of thought. Pleasing delusions have had a scare. Politics, theology and philosophy are having reconsideration. Convictions have proved to be prejudices, and fettering traditions enemies to progress. Hard thinking has now to be followed by fearless speech and effective action. The great catastrophe is God's call to reconstruction.

In India, where war's alarms have been so little felt—the urgency of many of life's practical problems created by the War is unrealized. It might have been better for her if her fertile soil of thought had been deeper ploughed by the events of recent days. But she faces the future with a wider vision and her part in British history has given her a new social relationship to the Nations of the world. It may be she will realize the hour of her destiny. If so, there is no realm in which she will discover greater need of reconstruction than in her weird, wonderful, yet essentially erroneous, social life.

It is a hopeful sign that in every province of the Empire, both men and women are awakening to the need of Social Service. Organizations are springing up that in comparatively small spheres do social work. But it is doubtful if they are based upon secure guiding principles or administered upon any compelling motives of undisputed power. Social workers in Christian countries have a conception of life and ideals of what the family and state should be