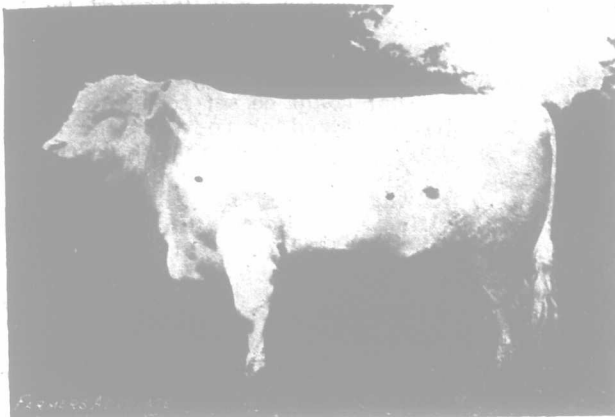




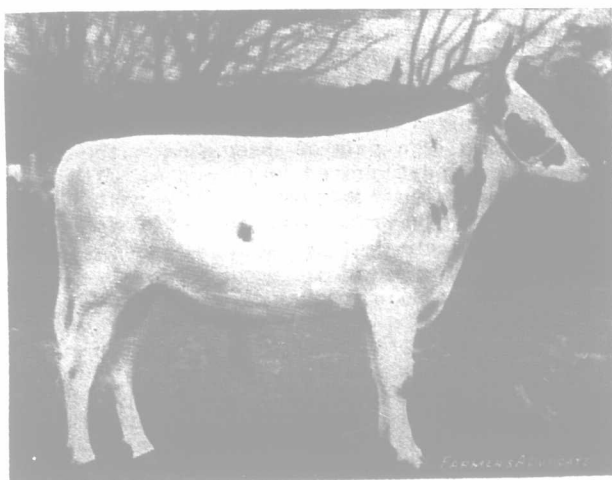
C. I. V.
Two-year-old Shorthorn bull; winner of the championship at the Royal Counties Show, England, 1902.
PROPERTY OF MR. J. DEANE WILLIS, BAPTON MANOR, WILTSHIRE.

Health on the Farm Affected by Insects.

Medical investigation of the causes of certain diseases to which country people are especially exposed, prominent among which are malaria and typhoid fever, appears to have traced the origin, or, rather, the transference, of these diseases from affected or unaffected persons to certain mosquitoes and the common house fly, malaria being carried by the former and typhoid by the latter. Malaria has been called by medical men a country disease, it being generally most prevalent in swampy regions or where there are side pools of still water in the vicinity of streams. Malaria in cities, as a rule, is found only with persons who have contracted it in the country or in the suburbs, although with cities having marshy places on their borders, a malarial belt may exist, the extent of which depends upon the direction and force of prevailing winds and especially of the night breezes. The old idea that malaria is caused by breathing the miasma of swamps, it is claimed, has been exploded, and it has been discovered that the disease is contracted only through the bites of mosquitoes of the genus Anopheles. The cause of malaria is the growth and development within the red blood cells of a very minute parasitic organism belonging to the lowest group of the animal kingdom—the group Protozoa, or one-celled animals, which includes those minute creatures known as Amœbas and others, and which live in the water or in damp sands or moss, or inside the bodies of other animals as parasites. This parasite reproduces in the body by subdividing, eventually bursting the red blood cells and entering the blood serum as a mass of spores. Broadly speaking, when the blood of a human being is sucked into the stomach of a mosquito of the genus named, the malarial parasite undergoes a sexual development and gives birth to a large number of minute spindle-shaped cells known as blasts, which enter the salivary glands of the insect and are ejected with the poison into the system of the next person bitten by the mosquito. If this person happens to be non-malarious, the malaria has thus entered his system and malarial symptoms result. So far as at present known, this is the only way in which persons become malarious, and in order to avoid this result it is necessary to study and plan to avoid the bites of malarial mosquitoes, and as it is perhaps too much to expect that the average reader will study the habits and description of the different varieties of mos-

quitoes, which are given in full, with engraved illustrations, in an excellent bulletin, No. 155 of Farmers' Bulletins of the U. S. Department of Agriculture, by Professor L. O. Howard, Entomologist, we commend what are set forth as the most practical measures to be taken to prevent malaria, which are the draining or filling up with earth of swampy or low-lying places where pools are liable to form; the covering of the surface of pools with a thin film of kerosene oil, and the use of screen doors and windows, together with a thorough search of the house for mosquitoes that have found entrance, and their destruction, which may be facilitated by burning a small amount of insect powder (pyrethrum) upon a tin dish cover. Persons wishing to avoid malaria should not sit out of doors exposed to the bites of mosquitoes at night, and those having malaria should be carefully screened at night to prevent them from being bitten by mosquitoes, which, becoming thus infected, would become potential carriers of the disease. Such patients, systematically treated with quinine, the dose being always given at the beginning of the chill, will soon be rid of the disease. The time of dose is important, and the reasons for the time has been abundantly proven by the study of the life of the parasite in the blood cells.

TO PREVENT TYPHOID FEVER.—The com-



NOT LIKELY OF HILLHOUSE (4469).
Typical Ayshire bull; winner of numerous first prizes and championships.
PROPERTY OF JAMES HOWIE, HILLHOUSE, KILMARNOCK.

mon house fly is believed to be the principal insect agent in the spread of this disease, and this insect is especially abundant in farmhouses and other country houses in the vicinity of stables in which horses are kept. The reason for this is that the preferred food of the larvæ of house flies is horse manure. They are also attracted to and will lay their eggs in human excrement. Under favorable conditions they will breed, to some extent, in this excrement. They swarm in kitchens and dining-rooms where food supplies are exposed. They are found commonly in box privies, which sometimes are not distant from kitchens and dining-rooms. Therefore, with an abundance of flies, with a box privy near-by, or with excremental deposits in the neighborhood, and with a perhaps unsuspected or not yet fully-developed case of typhoid in the immediate neighborhood, there is no season why, through the agency of contaminated flies alighting upon food supplies, the disease should not be spread to healthy individuals. That it is so spread is unquestionable.



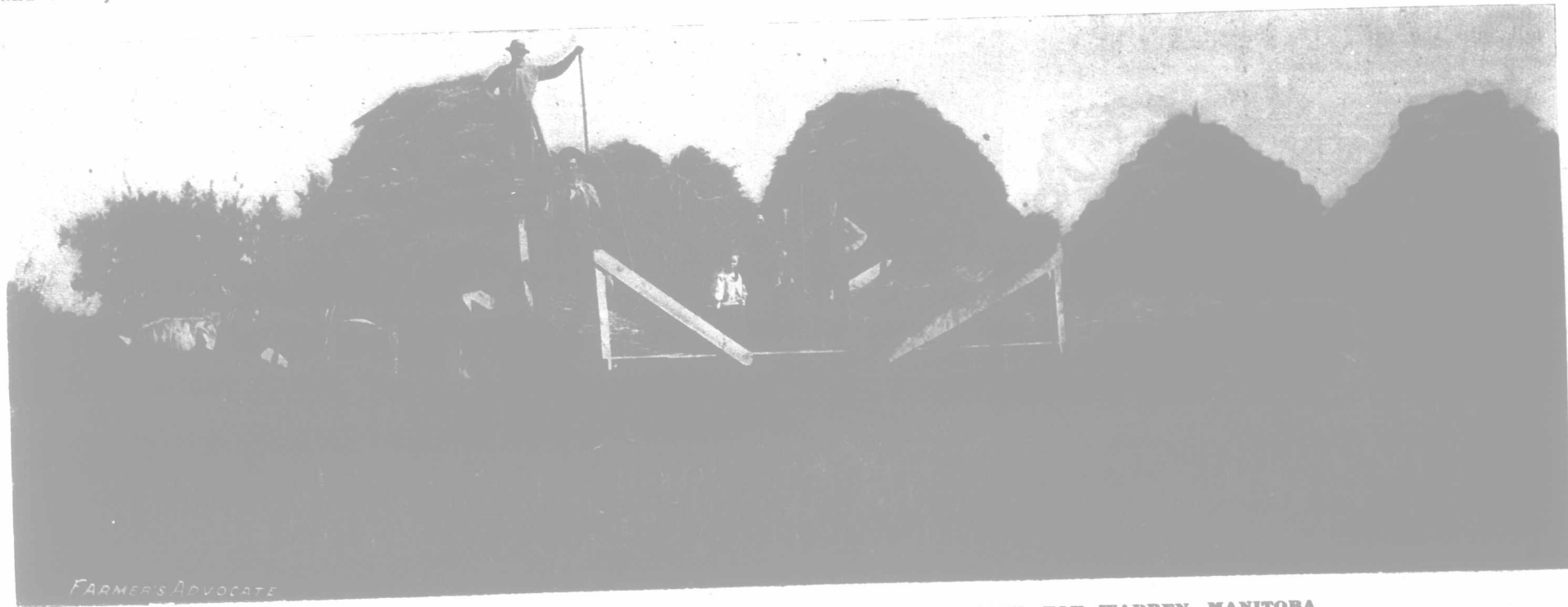
HIBERNIAN OF GLAMIS 32791.
Aberdeen-Angus heifer; first prize and reserve champion, Royal Show, Carlisle, 1902.
PROPERTY OF EARL OF STRATHMORE.

The remedy is plain. It consists of proper care of excreta, the destruction of flies, and the use of screen doors and screens for windows when raised, which are not expensive and can be purchased ready-made, or may, perhaps, be more cheaply home-made by a reasonably handy man. Where the old-fashioned box privy is yet in use, care should be observed to use disinfectants freely and often, fresh lime being the most convenient, and to have it cleaned out occasionally and the contents deeply buried and covered with lime. Where a good earth closet is in operation, and where, in case of illness, the excreta of patients are promptly disinfected by the use of lime or solution of copper sulphate (bluestone), both of which are cheap and easily applied, flies breeding in the neighborhood will have practically no opportunity to become contaminated with typhoid germs. Horse manure, however, should also be attended to by being removed, if not daily, at least once a week, and placed in a pit or treated to liberal applications of lime. Neglect of these simple and easily practicable precautions is little short of criminal, and in many cases is doubtless the cause of much illness, suffering and expense, and the sacrifice of valuable lives, bringing grief and sorrow to the inmates of the home and breaking ties which might have grown and strengthened with mutual benefit in the passing of years. People are apt to seek to console themselves with the view that all such instances of the removal of their friends are dispensations of Providence, but in all seriousness we believe it is wiser to recognize that in this respect, as in all others, Providence helps those who help themselves, and that by doing our duty in so far as we know it, by attention to the laws of health and the principles of cleanliness, we may become co-workers with Providence in the prolongation of useful lives and the maintenance of the happiness of home.

The Best Going.

The "Farmer's Advocate" is well worth the price that is charged for the same. Many a wrinkle is found between the red covers which can be put to practical use. It is the best farmer's paper going.
SAMUEL WOOD.
Wentworth Co., Ont.

Experimental shipments of Red Astrachan apples have been made from Grimsby, Ont., to Glasgow, in individual cases, and cold storage.



STACKING SHEAVES FOR THRESHING ON THE FARM OF A. NEWTON, FOX WARREN, MANITOBA.