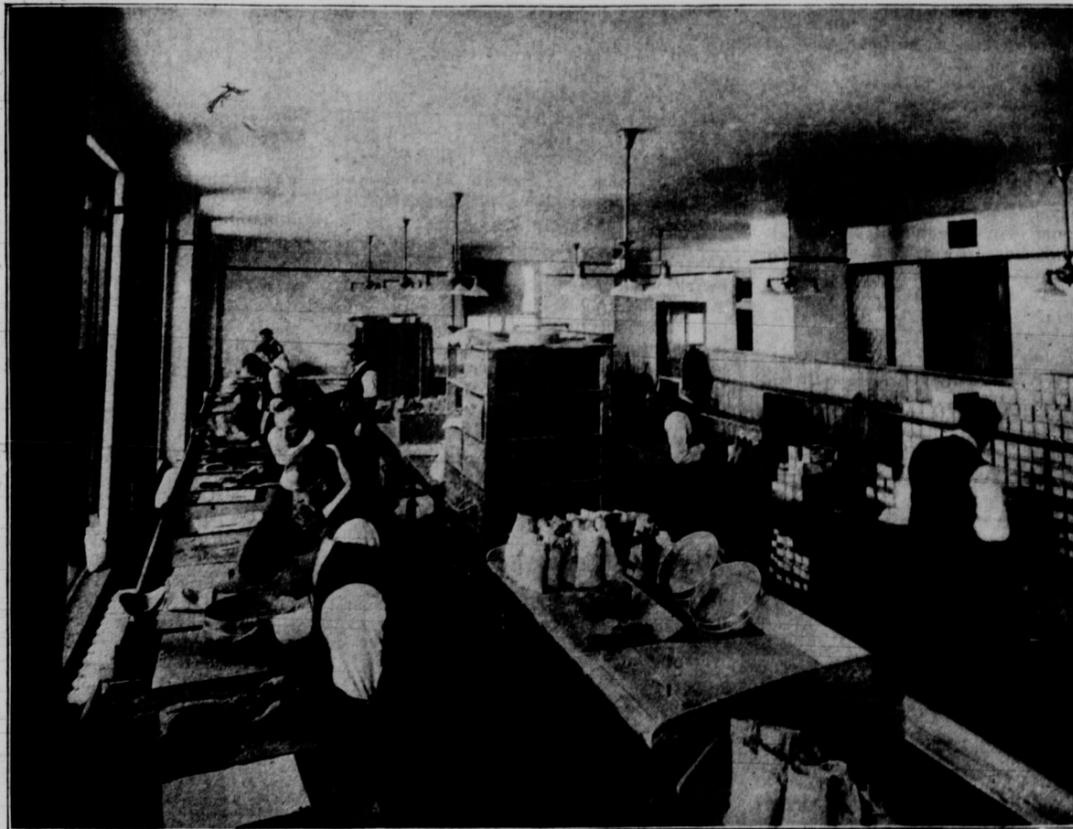


Grain Inspection in Canada

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THE INTERIOR OF THE GRAIN INSPECTORS' OFFICE IN THE GRAIN EXCHANGE, WINNIPEG. It is here and by these inspectors that the grade is set for all grain passing thru Winnipeg

preme test of wheat is its milling and baking value, and, judged by this test wheat as delivered by the farmer shows many and wide variations. The resulting classes are called "grades," and similarly there are grades of oats, barley and flax.

The Grades of Grain

The Canada Grain Act divides grain into five general classes, which it names: "No grade," "condemned," "rejected," "commercial grade," and "statutory grade."

"No grade" means all good grain that has an excessive moisture, being tough, damp or wet, or otherwise unfit for warehousing.

"Condemned grain" means all grain that is in a heating condition or is badly binburnt, whatever grade it might otherwise be.

"Rejected grain" means all grain that is unsound, musty, dirty, smutty or sprouted, or that contains a large admixture of other kinds of grain, seeds or wild oats, or from any other cause is unfit to be classed under any of the recognized grades.

"Commercial grade" means grain which, because of climatic or other conditions, cannot be included in the grades provided for in the Act. More particularly it means that the grain of one year may vary from that of the preceding year, and that a proportion of it therefore cannot be dealt with under the grades laid down in the Act, and must be provided for by grades defined by the Standards Board.

"Statutory grades" means grain of the highest grades which are defined by Parliament, embodied in the Grain Act, and do not vary with the crop. There are four of these grades for Manitoba spring wheat, three each for Alberta Red and White winter wheat, and two for Alberta Mixed winter wheat. In the same way there are statutory definitions of the highest grades of oats, barley, rye and flaxseed. Thus the statutory definitions can only be changed by Parliament. They do not vary with the crop, but are constant. The commercial grades, on the

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It is doubtful whether the majority of farmers realize the vast, complex machine which is set in motion as soon as their grain begins to move from the farms towards the head of the lakes, from whence it is distributed to all parts of the world. The Dominion government, realizing that information in regard to the handling of grain couched in somewhat simpler terms than those of The Canada Grain Act, would not only be much appreciated by farmers but would also be very valuable as an educational medium and tend to do away with many misunderstandings which formerly existed, authorized the publication of a booklet descriptive of the methods of handling grain in Western Canada. The publication is an extremely good one, both from the standpoint of attractiveness, it being profusely illustrated with photographs descriptive of every phase of the grain handling business, and even more so from the standpoint of educational value, since it is couched in simple language and deals thoroughly with all branches of grain inspection under the Canada Grain Act. The booklet is entitled "Grain Inspection in Canada," and is the work of Robert Magill, M.A., Ph.D., Chief Commissioner of the Board of Grain Commissioners for Canada. After a short discussion of the history of handling grain from the use of flat warehouses up to the building of elevators, the author passes on to a more specific outline of the inspection of grain in Western Canada as follows:—

Difference in the Value of Grain

Many causes may injure wheat for milling purposes:—

1. It may contain admixtures of other cereals, or of various seeds: of barley, oats and flax; of cactus, chess, cockle, darnel, garlic, wild mustard, wild oats, pigweed, ragweed, stinkweed, etc., etc. None of these mixtures are desired by the miller of flour, whatever value they may have for other purposes. An important part of inspection, therefore, relates to admixtures, usually called settling the dockage.

2. It may be free from admixtures,

but still be unfit for milling, either because it is affected by diseases such as smut; or because it contains too large a percentage of moisture, which renders it tough, damp, or wet; or because it is dirty or musty; or because it is heating or binburnt. A second important part of inspecting relates accordingly to what is called the condition of the grain.

3. It may be free from all the above and still vary in value for milling pur-

poses. There are many varieties of wheat, differing in their yield of flour both as to quality and quantity. Wheat grown as hard spring wheat may contain too large a percentage of other varieties to be graded high. And when this is not the case, different lots of hard spring wheat may vary in weight per bushel, in color, in plumpness, and those qualities which are best for the production of high-class flour. The su-



SHOWING HOW GRAIN IS TESTED TO ASCERTAIN THE WEIGHT PER BUSHEL AND THE AMOUNT OF DOCKAGE