

slight rearrangement of rolls may be necessary occasionally, and it is always necessary to use more moisture in one form or another. It would perhaps be advisable to let the wheat stand a while after dampening, and then dry it again before grinding.

Several points are already settled: (1) That we can grow the proper kind of wheat for making macaroni. (2) That the mills are able to grind it; and (3), that the macaroni made from such wheat, when ground, is fully equal to the best imported product.

Some especially interesting results have been obtained in making the flour and producing bread therefrom at the Dakota Agricultural College. In several towns in North Dakota, a large majority of the population now use the bread regularly, and would not use bread made from any other wheat flour.

The interest in the matter of bread-making having developed so far, an arrangement was finally made with one of the largest bakeries in this country, the Messrs. Corby Bros., of Washington, D.C., for carrying out an extensive comparative test of the macaroni wheat flour and ordinary northern spring wheat flour for making bread.

When the bread was made, two loaves, one of the macaroni wheat and one of the ordinary wheat flour, were sent to each one of 200 persons living outside of Washington and to about 40 different people in Washington for inspection and report as to their relative merits.

The general opinion of relative value of the macaroni wheat loaf, as against that made from other flour, was 108 to 74 in favor of the macaroni wheat loaf. However, in two particular characters, namely, that of color, and color and taste of the crust, the reports were unfavorable to the macaroni wheat loaf; in all other characters the answers being in a large majority of cases in favor of the macaroni loaf.

Stack versus Shock Threshing.

The question of threshing in all its bearings is one very much debated, and the relative advantages of shock and stack threshing are so subject to variation in such matters as seasonableness, the difficulty of procuring sufficient help at the right time, and the good behavior of that erratic personage, the clerk of the weather, that the scale is continually vacillating, now in favor of one and again in favor of another method. When the weather is good, and the separator can be set to work immediately after the cutting is finished, there is an immense saving of time, and a considerable saving of labor in shock threshing. The grain is got into the granary out of reach of rain, and the farmer is free to haul it to market, or proceed with other work with the easy mind of one who has got a precarious work accomplished. The cattle can be set free to pick up much nutritious food on the stubble, and lie in ease and comfort in the straw pile when the wants of the stomach are satisfied. Such are the advantages of shock threshing, and on a cursory survey of the situation one would be apt to conclude them to be so apparent that there is

nothing to be said against the method. When shock threshing can be accomplished in season, such is the case, and only in the difficulties of attainment does its disadvantages lie.

These difficulties, moreover, are to be met with by all but the few farmers who have threshing outfits of their own, and even they are subject to them to a considerable extent.

SHOCK THRESHING.

There are many arguments against shock-threshing, and although many of the threshing outfits commence the season's work with shock-threshing, it is found that few farmers cease stacking operations to await the always uncertain coming of the outfit. Again, in many instances, this expeditious method is rendered unpopular

being accomplished. With the exception of the binder and stooker's share, the whole process of harvesting and storing is going on at the same time, and sometimes even the work of marketing. Such expeditious despatch of work is certainly a great advantage, and on a large farm where much fall plowing ought to be done, it is a method which amply repays the extra outlay. In wet seasons stook-threshing is engaged in with much difficulty and loss, for a well-built stack will throw almost any rain, while the stook absorbs almost all that falls on it, and the outfit and crew remain on the farm, the latter not always devoting their energies towards such laudable objects as building churches and equipping Sunday-schools.

STACK THRESHING.

In older countries, when the grain is in the mow or "under thatch and rope," the farmer is supposed to have got the load of the season's care off his mind. The Western farmer, however, has yet another stage to proceed before he arrives at that enviable frame of mind, for "thatch and rope" are as great impossibilities here as a mow to hold his crop. The general farmer, growing from one to three hundred acres of crop, and not in possession of a threshing machine, is a good deal dependent on environment for the season at which he will get his crops threshed. It is, therefore, a case of necessity with him to secure it from the elements by stacking. If stacked in good condition, and stacked well, he may feel pretty secure. Good stacks are not always made, however, and when rain pours down on a badly-built stack, the last state of that grain is worse than the first. Stacking is an art, requiring some study and the observing of undeviating rules. Every sheaf in a stack, from foundation to peak, should have an upward slope from the butt to the head, and when a stack is so built the farmer can wait

with patience the advent of the thresherman. Stacks should be built in rows along the field, so that the plow may work on either side of them, leaving only a piece of land along which the stacks are.

Less men and teams required at stack-threshing is a great consideration, and when work is stopped by rain during threshing, there is no loss caused thereby, and operations can be resumed as soon as it ceases. The straw has escaped the fall rains, and the straw pile is in good condition for a winter bite, or for hauling into the yard and stables to provide fodder or bedding. Unless some chance has given the small farmer an opportunity of threshing out of the stook immediately after the crops are cut, the better plan is to stack the grain and stack it well, so that it will mean only delay and not loss should he fail to get it threshed for some time.

SMALL THRESHING OUTFIT.

After all has been said on the subject of shock versus stack threshing, the great desire of almost every farmer is to possess a small threshing outfit of his own, which he may use for either stook or stack threshing, or at any season as it might be expedient or convenient. Gasoline power comes the nearest to fulfilling such requirements



BURN BRAE, FARM HOME OF MR. D. LANG, MCKENZIE, MAN.

owing to the difficulty the farmer has in procuring help from his neighbors, and the onerous duty of repaying that help after his own threshing is done. The hauling in of the sheaves, and the dispensing with the laborious work of stacking are privileges for which he has to pay the thresherman in hard cash. Then when the threshing provides the meals for the crew he charges for shock-threshing nine cents per bushel, or about double the amount charged when stack-threshing with the farmer providing the board. In setting the separator, no great attention can be paid to the matter of stacking the straw in places suitable for cattle to avail themselves of its shelter in rough weather. In stacking, it is usual to have a few stacks of barley and oats in the shelter of a bluff, where it is threshed and stacked. To haul the same amount of sheaves there and keep the machine running in stook-threshing would be impossible with the ordinary crew, as it would involve long haulage; hence, in stook-threshing the straw is not so economically husbanded, nor is it in such good condition for preserving when threshed fresh out of the stook, and it is exposed in the rude pile to the fall rains, which in well-built stacks it would have escaped. When everything goes well in stook-threshing, however, a great amount of work is



"STOOK THRESHING" ON FARM OF J. HAGGERTY, NEAR MOORE SAW, AUSA.