

a-half pails of water, and simply sprinkled on the seed wheat, is as efficacious, and permits of the seed being drilled before drying. The only care necessary is that the grain be constantly stirred while the liquid is being applied, so that all the kernels are moistened.

Mr. Mackay, of the Indian Head Experimental Farm, reports an experiment in which the yield of wheat was increased from nineteen bushels of unsaleable wheat to twenty-five bushels of good wheat by the use of the bluestone. In a letter he says: "There is no question as to the efficacy of the copper sulphate treatment, and the small percentage of injury to the vitality of the grain is not worth considering, when compared with the crop of good, clean grain reaped. Wheat, oats and barley may be treated by sprinkling with a solution of one pound of sulphate of copper in a pailful of hot water. This amount will do for ten bushels. The grain should be well stirred by shovelling." He is not in favor of the Jansen method of hot water treatment, for he says: "No use in recommending this treatment for the N. W. T.; water is too scarce and the farmers would not take the trouble."

The report of Prof. Shutt gives the results of experiments conducted for the past three years, which go to show that there is a certain loss of germinating power and lessening of the vitality of the

these theories have succeeded when applied by practical men. We give the following as evidence:

GEORGE STEEL, Glenboro:—"Since we started to bluestone, some six years ago, we have had no trouble with smut."

JAS. A. MULLEN, Cypress River:—"I bluestoned it well, and then limed it to dry it. No smut to speak of."

J. DALE, Grund, has arrived at the conclusion that bluestone is the only safe remedy against smut.

JOHN S. THOMPSON, Waskada:—"All in this section who did not bluestone are bad with smut."

J. W. PARKER, Blythfield:—"We have never had smut here, as for twenty years I and nearly all my neighbors have used bluestone. It is a perfect and reliable preventative; never saw it make any difference in germination."

ALEX. T. THOMPSON, Douglas:—"1891 was noted for smutty wheat, very little bluestone used; 1892 nearly all of us used bluestone, results, very little smut. Farmers can draw their own conclusions."

H. NICHOL, Brandon:—"From my experience and observation I am fully convinced that if all the wheat sown here each year was carefully dressed with bluestone the smut trouble would vanish."

R. S. MCBETH, Oak Lake:—"Where wheat was treated with bluestone at the rate of one pound to seven or eight bushels of grain it was free or nearly so from smut."

J. L. RIBOUT, Solsgirth:—"Many farmers in this district used bluestone with very satisfactory results."

THOS. COPELAND, Saskatoon, Sask.:—"No smut, nearly all farmers took the precaution to use bluestone in the proportion of one pound to eight bushels wheat."

G. M. VOEMANS, Alexander:—"I found on looking into the matter that all the best farmers on the Portage Plain used bluestone every year, and found it necessary to do so, although bluestone was 25 to 30 cents per pound, and not always to be had at that. As my wheat was very bad with smut I used it

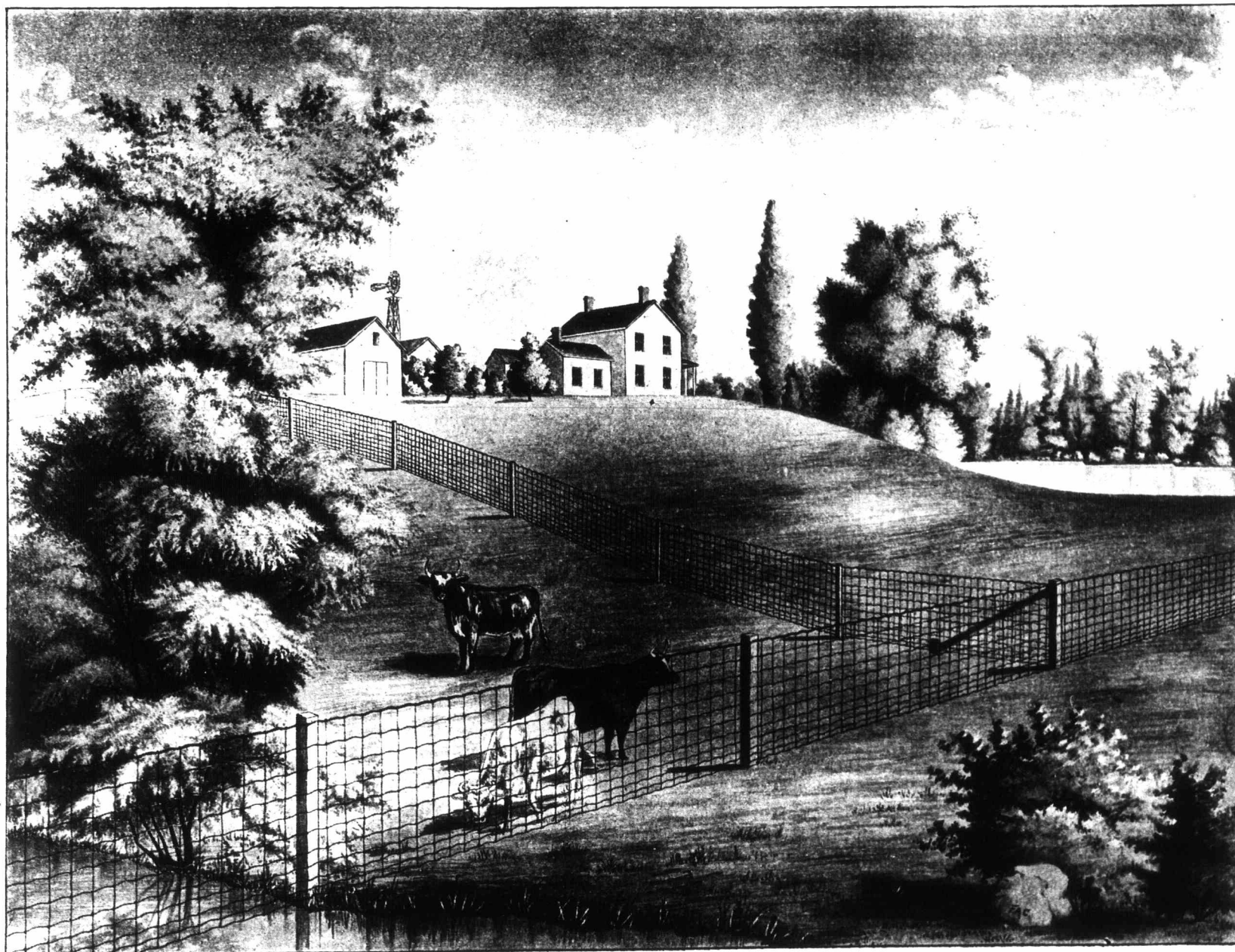
Page Fence.

The accompanying handsome illustration gives a very good idea of the neat appearance presented by the famous Page Fence. This fence is growing very rapidly in popularity. It was invented about nine years ago, by J. Wallace Page, in the state of Michigan. The first fence made was woven by hand. To-day this fence is being manufactured at the rate of twenty miles per day.

Whenever any of our readers have occasion to visit Windsor, Detroit, or Walkerville, we would advise them to call at the Page Fence factory, and see the interesting process of weaving this device by the splendid machinery used.

Fertilizers.

In my letter on this subject in your issue of Jan. 15th, I expressed my intention of giving your readers a few notes on our experience last year with artificial fertilizers. I am free to confess that up to last year I was somewhat of an unbeliever in artificial fertilizers for this soil and climate, more especially as they seemed to me to be too expensive for the ordinary farmer, who as a general thing needs a quick return for what capital he may invest; but when last spring I found myself with a large amount of land to handle, most of which had



A CANADIAN FARM SCENE.

grain due to the effects of the dressing of the bluestone, and that the effect is less in agricultural bluestone than in sulphate of copper. The experiments would seem to show that the deterioration of the vitality was to a certain degree measured by the length of time the seed was allowed to dry after the sprinkling with the copper solutions. In brief, the conclusions summed up are as follows:

1. That sulphate of iron is not efficacious in destroying smut spores.

2. That sulphate of copper treatment is the most efficacious of all in preventing the development of smut.

3. That agricultural bluestone occupies a place between these two salts in reducing the amount of smut.

4. That the subsequent immersion in lime water of the seed treated with copper sulphate and agricultural bluestone lessens the effect of these salts as smut preventatives, and this treatment also lessens the injury to the germinating power and vitality of the grain, but it is doubtful if it is of sufficient good to pay for the trouble.

There is less loss of vitality when the sulphate of copper is sprinkled on the grain than when it is dipped in the solution.

We will here leave the experiments which have been conducted by scientific men, and see how

stronger than usual, one pound to eight bushels of wheat; it cleansed my wheat the first season. In my opinion there can be no question about bluestone being convenient to apply, and thoroughly effective in cleansing wheat of smut if applied as follows, which is the usual way with many good Manitoba farmers, myself included: Special pains are taken to clean out if possible every smut ball with the fanning mill, for no treatment will kill all the spores in an unbroken smut ball. Then a few days before sowing I dissolve one pound of bluestone in three or four quarts of boiling water to every eight bushels of wheat. Spread the seed thinly on the floor, and sprinkle on the solution with an old broom, while an assistant shovels it over till the solution is all taken up and every grain is wet. This small quantity of water will perfectly coat every part of every grain of wheat, and will not swell it or increase the bulk perceptibly. Still I find that it makes it run more slowly through the seeder."

H. NEWMARCH, Strathewen:—"The only successful way of growing grain is to treat with bluestone."

J. H. McCURE, Balmoral:—"I have never been troubled with smut, as I have used bluestone for a number of years."

E. J. DARROCH, Minnedosa:—"Where wheat has been properly treated with bluestone smut has hurt it very little, but when not bluestoned it is, as a general thing, badly damaged."

W. DRUMMOND, Birtle:—"Used bluestone on all the wheat at the rate of one pound bluestone to seven bushels of seed, dissolved in hot water, and sprinkled on wheat spread out in barn floor, and kept turned until all damped. I think the bluestone a sure preventative."

H. O. AYERST, De Clare, bluestones his wheat, and is never troubled with smut.

W. A. DOYLE, Beulah, treated his grain in usual manner with bluestone, with the result that he is unable to find one grain of smut in crop.

been cut as meadow for twelve or thirteen consecutive years, during which time it had never known what a coat of manure was, I began to consider the question of fertilizers a little more seriously. In 1892, previous to my coming to the farm, besides what land had been manured, some twenty acres of oats were grown on sod, without manure, and in the fall of the same year I had, in addition to this oat stubble, plowed some fifty acres of the old grass land referred to. My output of farmyard manure amounted to some 700 loads, but as I intended putting in about 35 acres of corn and roots, I knew that I should have very little of it to spare for my grain, and as I wished to plow about forty acres more old sod for oats, and all my neighbors assured me that the land would not grow any crop without a good dressing of manure, I was in somewhat of a quandary. However, I made up my mind that my best course to pursue was to make use of some artificial fertilizer, and by supplementing it with clover on the one hand, and by feeding lambs off on the ground on the other, to endeavor to bring up the fertility of such land as I could not spare manure for. Having come to this conclusion, my next question was, what fertilizer shall I use, and here I had recourse to what is sometimes contemptuously termed book farming, for taking down from the shelf my copy of "Johnston & Cameron's