

duct, connected at the one end to a register in the floor of the room, and at the other end to the flue.

The hot-air furnace, as was stated above, provides a ready-made means for introducing fresh air, properly warmed. A duct leading from the outside to the base of the furnace is all that is necessary.

Ventilation with steam or hot-water heating can be readily done by cutting in the wall adjacent to a radiator an opening below the floor line, and connecting this opening by a duct with another one in the floor below the radiator. Thus will be supplied a gentle current of fresh, warm air.

With respect to ventilation, these facts should be borne in mind: Hot air is not necessarily foul air, nor, conversely, is cold air necessarily pure. Therefore, the temperature of a room is no sure guide in determining the need for ventilation. Secondly, the best ventilation in the winter time provides for warming the fresh air, and does not allow cold drafts to pour into the room. And then, ventilation in winter is obtained at the expense of heat, and therefore costs money, not only in the original capital outlay, but in providing fuel to warm the incoming fresh air. It is the part of wisdom to plan these arrangements beforehand, not to depend upon haphazard contrivances. In the building of a house, ventilating arrangements may be very simple and yet effective, but they should be definitely planned.

A Criticism on Plowing.

To the Editor "Farmer's Advocate":

In the "Farmer's Advocate" of October 13th there appears an article on fall plowing, which impresses me as conveying a wrong idea in regard to plowing. Most that the writer said was correct, but the sentence, "Have, in clayey soil, the furrow stand well up on edge," seems to me to be against the rules of good plowing. Such plowing has no advantage, but, rather, a disadvantage. There would be very little difference in the degree of exposure between a furrow set on edge and a good lap furrow.

The chief objects in plowing are the pulverization of the soil, the inverting or turning over, and the burying of trash, stubble and sod. Although the entire inversion of soil is not important, the burying of trash is necessary. None of these conditions are brought about by leaving the furrow on edge. Little pulverizing is done, and much stubble and grass is left uncovered, so that in the spring, when cultivation is begun, sods will be numerous obstacles upon the surface.

The question may be asked, then, what is good plowing? There is only one way to plow, and that will be found profitable at all times and at all places. A lapped furrow is the ideal one. With such a furrow, nearly as much surface is left exposed to the elements as by any other; the soil is pulverized more completely; there is an enclosed air-space under the furrow; all litter is well covered, and it is less difficult to bring in to proper tilth.

Flat furrows are even less desirable than those on edge, for there are no air-spaces left, pulverization is not complete, and the soil is brought into proper tilth, especially after fall plowing, with more difficulty.

Leaving the furrow on edge in any kind of soil is not good practice. In order to do so, one must cut a narrow furrow, which takes more time and gives no proportional reward.

Agricultural College, Mich.

H. D. HAHN.

To Farmers' Institute Workers.

The following resolutions were passed at the annual meeting of the American Association of Farmers' Institute Workers, at the World's Fair, St. Louis:

1. That we regret that temporary indisposition has prevented our President, B. W. Kilgore, of North Carolina, from attending this meeting, and we trust he may soon recover his usual health and vigor.

2. That we are pained to learn of the sudden death of our fellow Institute worker, H. F. McMahon, of Indiana, whose name appears on our programme. We tender sincere sympathy to the family and friends of the deceased.

3. That we heartily commend the thoughtful, scholarly and eminently practical addresses and talks of Mr. C. C. James, Deputy Minister of Agriculture for Ontario, Canada; Mr. Frank H. Hall, Superintendent of Farmers' Institutes for Illinois; and Mrs. S. Noble King and other ladies; on important phases, purposes, and accomplishments of the Farmers' Institute work. We trust that their addresses may have a wide reading by the general public, and that they will be carefully read and applied by Institute workers.

4. That we recognize the great educational value of these annual meetings of the American Association of Farmers' Institute Workers, in extending pleasant and profitable acquaintance among the workers, in giving up-to-date information as to the newest lines and best methods of work, and in pointing out the mistakes of the pioneers for the benefit of the inexperienced in this great field of practical agricultural education.

5. That while we are justly proud of the success of the Farmers' Institute in helping the farm-

er of yesterday and to-day, we recognize that we confront the more important and far-reaching work of training for enlarged usefulness, success and happiness, the farmer of to-morrow.

6. That we note with pleasure the growing recognition of the fact that the school children must be inoculated with the leaven of agricultural and domestic science education, and we rejoice that already agricultural colleges, farmers, public-school officials and teachers are uniting their efforts with general and local institute managements to this end.

7. That we are highly gratified to note the largely increased co-operation of the agricultural

and informal reception tendered the members and friends of our Association; also to the press for notices and reports of the several sessions of our meeting.

Respectfully submitted by the Committee on Resolutions:

W. C. LATTA,
G. A. PUTMAN,
C. M. CONNER.

A Farmer's Impressions at the World's Fair.

On arriving at the Fair Grounds, St. Louis,

I made my way at once to the Canada Building, where I met the officials in charge, who welcomed me kindly, and heartily gave me assistance in what I wished to have done. The Canada Building was my home from that time forth while on the grounds, and a very comfortable place it was. There one could meet Canadians, could read the home newspapers, Canadian pictures were on the walls, and there were comfortable parlors where one could rest and write letters, and toilet-rooms with all necessary conveniences. Not only were the officials from Canada polite and attentive, but the same can be said of those in charge of the various State displays, and of those also who were in

attendance at the exhibits from foreign countries. Any enquiry that was made, whether of Austrian, Swede, German or Japanese, or of those in authority from Mississippi, California, New York, or other State or countries, was answered most kindly and courteously, and without giving the impression that they were condescending in doing so.

THE SOUVENIR SELLER.

The next impression was not so pleasant, and that was that there were an innumerable number of stalls and counters for the sale of souvenirs and trinkets. The vendors were most watchful and insistent, and lost no opportunity of crying up their wares. Unscrupulous liars many of them were, too. The number of times a day that some of them must have said that their machine-made fabrics were all handmade makes one despairing of his kind.

After going around the fair for a while, the feeling took possession of one that a world's fair was not so very different from a township show, or the bigger shows at Winnipeg, London, Halifax or Toronto, except in size. At all of these there is the meeting of people from different parts, the same curious but somewhat listless interest in the exhibits, the same endeavor on the part of exhibitors to put their best foot forward, the same quick gathering of a crowd around any man who talks loud, making it a fine pasture-ground for the faker, and also the same valuable lessons to be learned of what can be accomplished by energy and skill.

A WONDERFUL SHOW.

The magnitude of the St. Louis Fair was realized more and more after a day or two. The Palace of Agriculture, very properly the largest, is thirty-three rods wide by over one hundred rods long, and contains twenty-three acres, with four miles of aisles. It is completely filled, quite a few acres being occupied by agricultural machinery. The other buildings are in proportion. Looking from the front of the Agricultural Building, which is on a considerable height, and furnishes a fine view of many of the other buildings, they seem to be

placed quite close enough together for appearance sake, yet such is their size that one soon realizes, after going through and between two or three, that he is walking miles, instead of blocks. The magnitude of the exhibits and their excellence and variety is simply wonderful. The wonder rises in the mind: Why should foreign countries have gone to such an expense to make a great display here. It must have cost some of them hundreds of thousands of dollars.



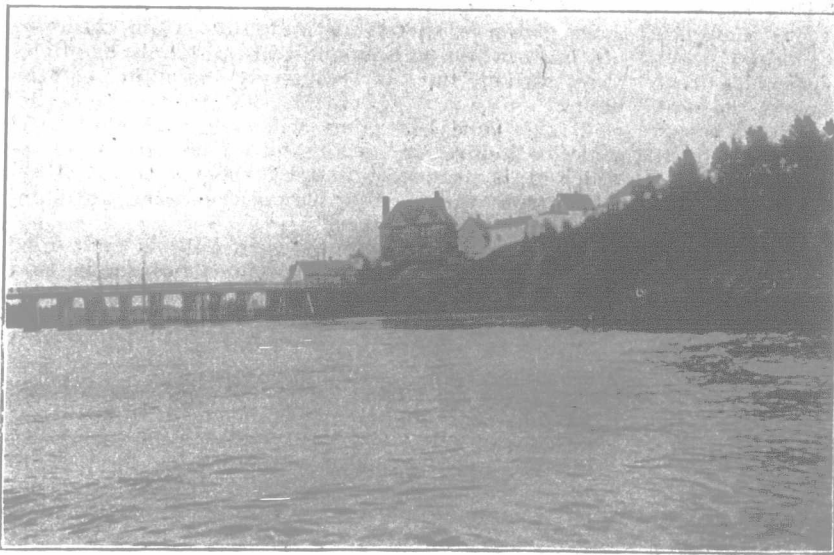
A Canadian Sheep Pasture.

colleges and experiment stations in the Farmers' Institute work, as shown by the fact that over one-third of the State lecturers are from college and station staffs and that over two thousand days of services were contributed by these workers during the past year.

8. That we realize that a highly important mission of the Farmers' Institute is to sweeten the toil, render more effective the labor, increase the cheer, multiply the comforts and attractions, train, lift up and inspire the inmates, and thus strengthen and hallow the influences of the home. We, therefore, rejoice in the progress that has been made in the preparation and training of the homemakers of our country, and we hail with delight the favorable omens for a larger and better work at Farmers' Institutes in behalf of our mothers, wives, sisters and daughters.

9. That we appreciate the very effective work, encouragement and effervescent good-cheer of our genial Secretary-Treasurer, Mr. G. C. Creelman. We congratulate him on his promotion to the more responsible position of President of the Ontario Agricultural College, and we are very glad that his new duties will permit him to continue to serve the Association as its Secretary-Treasurer.

10. That we tender hearty thanks to our



Post Office at Montague, P. E. I.

Photo highly commended in recent competition.

Farmers' Institute Specialist, Mr. John Hamilton, for his instructive exhibit of illustrative material and for many thoughtful attentions; to Mr. F. W. Taylor, Chief of the Department of Agriculture and Horticulture of the Louisiana Purchase Exposition, for his kindly greeting and other courtesies; to the Illinois State Farmers' Institute for the privilege of holding one of our sessions in their palatial State Building on the Fair Grounds, and for their pleasant impromptu