drawn upon, England furnishing our language love of and determination to hold civil and religious liberty, the schoolhouse, and open Bible -principles laid down a thousand years ago by Alired the Great, and confirmed later on the plains of Runnymede and established forever by the Declaration of Independence-establishing a moral tone through our heterogeneous mass that will make us one people, with one aim in lifeindependence and comfort to the individual, safety and strength to the commonwealth. England and Scotland have furnished all the domestic animals that enrich our farms, supply our markets, and have built up our enormous export trade, last year amounting to over two hundred million dollars, over three-quarters of which she took. Ireland has furnished us with professional patriots, practical politicians and portly policemen, producing Tammanys with Devery attachments, Clan-na-Gael accompaniments, and for variation she gives us some of our brightest, bravest and best.

But the scene moves on. This must be an allegory, as I see the figures and hear the voices, but may not understand. There seems to be trouble in Durham Hall, which is presided over by a figure resembling Old Mother Hubbard with a beard; she is called Granny, and has hold of a boy by the collar of his little coat. Teddy Corn Tassel's aunt, "Good Times," has been around, and given him a nickel, and Granny wants him to give it to her to put in the big pocket that hangs at her side, beneath the blue skirt with the slit in it, for home missions and things. Teddy sees the open door, and wants to get out, Granny says, to go around the corner to that Jew candy-stand to get some taffy. He has been there before, and says it is made out of the best of oatmeal and heather-honey, and that Granny's taffy is made out of glucose and red dog. Granny says it ain't, and that you're going to give good hundred-cent money to build up no New Jerusalem. If you do, Teddy, I'll lam you with this hundred-dollar birch I have just cut for your protection. We want no foreign types, nor foreign taffy. Next thing you will be coming home with kilts on and choke-full of Athol brose. You've had the bellyache already, and you're a foolish boy to want to go back. I know what is good for you, and I want you to grow up a good little American boy like what George Washington and Bunker Hill was. Give me that nickel, and sit down." This is as far as the roller has gone, and I must leave for the Fat Stock Show. WM. MILLER. Merry Christmas to all. Buena Vista Co., Iowa.

The tendency of most doctrines is to be very narrow, and the loyalty for a particular church is "bred in the bone," as a certain little Memphis boy bears witness. His mother was telling him of the childhood of Christ, and in the course of her story said that Christ was a Jew. little fellow looked up at her in wide-eyed astonishment, and said in an awed voice: mother, I always thought that the Lord was a Presbyterian.'

Owen Staples.

Owen Staples (born at Stoke, near Humister, Somersetshire, Eng.), among the younger element in Toronto art circles, gives much promise for future development from the success he has al-



ready achieved. Since early boyhood he indulged his taste for all forms of animal life, and he has produced some works of high merit. His paintings of the creatures of dumb life are usually made out of doors when practicable, and hence are characterized with much boldness and freedom of execution. Mr. Staples received his first instruction at the Rochester Art Club. Returning to Toronto again in 1885, he joined the then

owen staples.

newly - organized Art
Students' League. He spent the winter of 1887 and 1888 in Philadelphia at the Art Students' League. His association with Mr. G. A. Reid in his study during the past few years has had beneficial results. His most ambitious works have all been of animal life. Mr. Staples' picture of the "Last Load" was chosen to represent Canadian art at Chicago World's Fair. He also exhibited in the Pan-American the picture of which an engraving adorns the present Christmas number of the "Advocate," and is entitled "The End of the Day," showing a pair of horses drinking at the trough, after their day's trial. It is a fine study. Mr. Staples is an enthusiastic and energetic worker, and there is every reason to expect that his talent will gain him honorable recognition in the future.



From a painting by Staples.

"THE END OF THE DAY."

Financial Benefits from the Agricultural College.

BY THOS. SHAW, PROFESSOR OF ANIMAL HUSBANDRY, MINNESOTA AGRICULTURAL COLLEGE.

It is not easy to measure the financial gains to any Province or State which accrue to the same from having within its borders a wellequipped and well-conducted agricultural college. It would not, perhaps, be possible to measure these gains, since no measure can be applied which will exactly cover the whole ground and give all the results. That it should be so is very apparent from the nature of those gains. come in successive instalments. They grow out of all the avenues of agriculture. They are cumulative in character. They multiply as the agriculture of the country extends. Like the good seed which good men sow, they continue to increase and multiply down through all the years that are yet to be, until that borderland in succession is reached when time shall be no more.

But the financial gains arising from such a college are not wholly elusive and intangible as to their amount. Some of these can be grasped by the statistical monger, and among them may be named the following: 1. In 1889 the writer imported from Europe to the Ontario Agricultural College 240 varieties of grain, and got pretty soundly rapped over the knuckles by the authorities then in power for making so large and so expensive an importation. These grains were tested on the Experimental Farm at Guelph, and other grains and seeds were added from time to time and similarly tested. The best of these, when proved, were distributed among the farmers, to be further proved in a co-operative way. This method of distribution is still continued in that Province. What are the results? Why, Ontario is filled from side to side with those varieties of agricultural products which have been found best adapted to each condition of soil and climate. This has been made possible by allowing the farmers to retain the seed which accrued from sowing the grain sent to them. Measure, if you can, the benefit which has come to Ontario through such a method of seed testing and seed distribution. It is now better furnished with

suitable varieties in the line of field products than any Province or State on the American continent. It would not be claiming too much to say that this one line of work has many times over paid the entire cost of the Agricultural College to the Province. That this conclusion is not extravagant will be abundantly apparent from the following: Suppose that the yield of the oat crop of Ontario were increased but one bushel per acre for one year. Put the price of oats at the low level of 25 cents per bushel. This would mean that such increase would be worth, approximately, \$500,000 a year to the Province in this one line of production. Who will take it upon himself to say that the average production of oats has not been thus increased through the splendid varieties thus distributed during recent vears?

Now suppose that the same result were achieved in Manitoba or the Maritime Provinces, the calculation can easily be made as to what the financial gain would be.

2. At the Wisconsin Agricultural Experiment Station, Dr. Babcock perfected the milk tester, since known as the Babcock test. With a generosity as rare as it is noble, Dr. Babcock gave the world the benefit of his discovery, without hope of personal emolument. Had he patented his discovery he might now have walked the earth as one of its millionaires. What would the dairy interest do to-day without the Babcock test? Blot it out of existence, if that were possible, and the sun in the sky of dairy progress would at once go backward 25 degrees and more. Who can estimate in money the value of the Babcock test to Wisconsin, Dr. Babcock's own State, to say nothing of the service which this discovery has rendered the world. This, however, was an extraordinary discovery, the equal of which may not occur again for generations. The subsequent illustrations like that first given will be more easily paralleled by future workers.

3. In 1899 the writer began experimenting in growing the rape plant at the Experimental Farm at Guelph. In 1890 a bulletin was issued on the same. At that time, it is affirmed by one of the best authorities in the United States that less than 500 pounds a year of rape seed was sown in