

The Spectrum

Published by the Students of the North Dakota Agricultural College

Vol. X

DECEMBER 15, 1905

No. 3

Christmas in the Coulee

IN a little mud-plastered shack, in the heart of the cow-country, three men, rough, bronzed by wind and weather, and uncouth of dress and manner, sat in silence around a little, red-hot, sheet-iron stove. It had been snowing for the better part of the last three days, and at present the storm was evidently at its height. The howl of the blizzard, as it went shrieking through the narrow coulee, on the bank of which the shack was situated, was the only sound that disturbed the silent blackness of the night, except for the occasional howl of a lonely coyote. For three long, weary days these men, cow-punchers on a distant ranch, had lain, snow bound, in a deserted claim shack on the bank of the coulee, forty miles from the nearest settlement, patiently waiting for the blizzard to cease so they could get into town.

Hank, eldest of the trio, and for that reason leader of the party, sat with his feet propped against the stove, splicing a broken bridle rein, and periodically expectorating huge quantities of tobacco juice at an inoffensive knot hole, some six or eight feet distant. Pete sat with his back to the bench which served as a table, and on which stood a lantern, smoky, greasy, and covered with dirt, but still giving forth a faint glow in lieu of a light. He was trying to decipher the print of a newspaper, which by its date line claimed to have been published on the 4th of September, but as Pete saw perusing its pages with evident interest, it must have contained news for him. Joe, the third and last member of the trio, was polishing his six-shooter with an oily rag and now and then breaking into song, followed by a stag of feet and a hammering on the table with the butt of the six-shooter as Joe called, "Order, gents! order!"

Silence reigned again, at last, and Joe mounted a soap-box in order to get a better view of Pete, who was now buried head and shoulders in the newspaper, while he asked, "Which one of you fellers knows what day this is by the calendar?"

Since nobody presumed to answer such an audacious question, Joe continued, "Well, boys, we left the ranch on Wednesday, the 21st of December, and we got to this hang-out that night. Now she's been snowin' three days steady, and unless my figrin's wrong, which it ain't, this is the night of the 24th, and I'll be shot if it ain't Christmas Eve!

Having delivered himself of this information, Joe subsided to the soap box again and recommenced his polishing, while Hank spat reflectively at the knot hole and announced his opinoin by saying, "I reckon the celybration at Chanta Peta 'll have to get along without my stockin's seein' as we're stuck in this infernal blow an' no chance o' doin' better."

Suddenly Pete jumped to his feet, and flinging the paper at Joe's head scrambled to the top of the table.

"Ladies an' gents, mostly gents," he said, "where as we're unable to attend the celybration and carve the festive turkey in Chanta Peta, I move that the assesmbed American citizens let the doin's in the city go to thunder, and have a blow out of our own right here."

"Now yer talkin'," yelled Joe, and Hank nodded his assent from his position near the stove. "And I move, Mr. President," continued Joe, mounting the soap box again, "that this yer assembly resolve inter a committee of the whole to discuss ways and means. Hank, ef you'l break loose from that chew o' terbacker long enough to tell the committee what you know about the state of ther grub-box, we'll be much erbliged."

Hank did as requested, and said "The grub's holdin' out all right, an' we got flour and bacon an' coffee 'nough to last a week, but verierty's somewhat skeerce, an' I fergot to put in a turkey when we started, not knowin' that we'd need one, but I guess we'll make out some way."

They toiled till late that night, carrying coal, cleaning the shack, and, as Joe said, "decoratin' everything with something else." Hank worked hard baking biscuit, while Joe swept the floor and Pete, taking the axe, sallied out into the storm, returning with a great bundle of evergreens, rose bushes, and one monstrous sage bush. Then they threw themselves into the bunks nailed at one end of the shack and slept the sleep of exhaustion.

Christmas morning broke bright and clear and the sun rose in all its glory. The blizzard had spent itself in the night and now the sun shone upon a limitless expanse of buttes and prairies, over which the snow lay in great white drifts, with bare places here and there where a grey sage-brush reared its gaunt and leafless branches. On the tops of the buttes, the red scoria made a flaming contrast to the sparkling whiteness of the snow as it reflected the bright rays of the morning sun.

The interior of the little cabin on the bank of the coulee, however, presented a strange sight. The rough board floor was swept clean, the chairs and boxes were ranged against the wall, and a pile of huge chunks of lignite occupied the corner nearest the stove. All around the room, hanging from walls and ceiling, were wreaths and festoons of trailing evergreen, dug from under the snow on the north side of a tall butte. Entwined with the evergreen, at short intervals, appeared the red berries of the prairie rose bush, giving a queer western imitation of holly. In the center of the room, supported in a lard hucket filled with coal, stood a gigantic sage bush as an uncouth representation of a Christmas tree, and from its branches depended numerous tobacco tags and brass cartridges, in lieu of candles and tinsel—surely a queer apparition for this lonely little shack with the three rough cowboys, who were now blissfully snoring in their bunks, the only human beings within miles.

But it seems they were not the only persons snow-bound on this great expanse of white prairie, for with a jingle of bells, followed by the crack of a whip, a bob-sled, drawn by four horses wallowing knee deep through the snow, and containing a party of merry young people, suddenly emerged from between the buttes at the mouth of the coulee, and come to a stop in front of the cabin door.

The inmates were soon aroused by the shouting of the new comers, and Pete was the first to throw open the door and dive head first into the snow drift which blocked the opening. By dint of much kicking, pushing and rolling, he finally emerged into the open air, covered with snow, but wide awake.

"Hank! Joe! Hey you fellers!" shouted Pete, as he realized what had happened, "Come out here! I'll eat my hoss ef old Santy Claus ain't come over with the outfit, and derved ef he didn't bring the whole family along with him."

At this urgent appeal Hank and Joe immediately emerged from the shack and many hand shakings and Merry Christmas's followed the greetings. After seeing the horses cared for, the whole party entered the shack, where Hank had breakfast on the table and the little sheet-iron stove was again heated to a glowing redness.

The foreman of the H6 outfit, who was one of the party, explained that they had started to town in the storm the day before, but had lost their way and been compelled to camp in the sled all night.

"But, say," he continued, "this here celerbration of your's beats anything they can get up in Chanta Peta, Christmas tree and all; so we might as well stay right here and help the boys make their celerbration a success."

The celebration was certainly a success. The women turned to the preparation of a Christmas dinner with a will, and a search of various articles, including a bottle of pickles, and a quantity of pie and cake. If the turkey was lacking, good appetites were not, and as the party rose from the table after dinner, Hank extended his hand across to the foreman of the H6 outfit and said, "Pard, this is the best Christmas I've spent since I was a kid back east, and I don't want to forget it. Shake!"

"I used to be a kid back east myself," said the foreman, as he accepted Hank's extended hand and shook it solemnly.

When evening came, Joe mounted the soap box and distributed various small articles of personal property, which he had furtively collected from the members of the party during the afternoon, saying,

"Christmas ain't right unless everybody gets a present of some sort; so walk up and hold out yer hand like you was goin' to git a mortgage on the Standard Oil Company.

—V. C. P.

A Novel Christmas Present

"I HOPE you will pardon us, ladies," said young Mr. Gordon Phelps as he lit a cigar, after having passed the box to the gentlemen present, "but my wife promised me just two years ago tonight that I could always smoke at the table after our Christmas dinner. Christmas is our wedding anniversary, you know, and I made her promise, before I'd marry her, that she'd let me run things at least one day in the year."

Everybody laughed except one young fellow who had moved his chair almost into a corner, and who looked very much disconcerted. He was a fine looking, well dressed young man, possibly thirty years old, with black hair, high forehead, straight nose, firm mouth, and gray eyes. There was nothing remarkable until one notice those eyes. There seemed to be a look of longing

there, a look that told of some great sorrow or misfortune. "Now, look here, Mr. Cramer," said Mrs. Tacker, who was known as a professional busybody, "those blushes don't pass for nothing; all bachelors have had some love affair; you're far from home and no one will ever know the difference; please tell us.

"Come on, Frank," said Gordon, "if you have any troubles, let's hear them.

This is no time of year to be unhappy, and we want to help you bear your sorrows."

"Well," said Cramer, "if you're so anxious, I suppose I might as well tell you. It doesn't really make any difference to me, and I don't even know where she lives."

"He! he! I knew there was a *she* in the matter," bubbled out Mrs. Tacker, rejoiced that she was going to hear something new.

"It was six years ago," continued Cramer, "I had been going with her for a year or more and was pretty sure of my ground. I had our house all picked out, a nice homelike little place out on James Street and had even been gazing in at furniture store windows for a month or more. Christmas night should make me happy; I had fully decided that and calmly awaited its coming.

"It came and all went well during the first part of the eventful evening; mamma had gone out and papa was in the library. We held sway in the living room. I felt that the time for action was at hand and commenced.

"I had said my part and my arm had nearly gone to her waist, when I felt her start, and looking at the door I saw pa. There he stood, and I didn't need to have the invitation in his eyes seconded, for I knew that he was one of the extra-hazardous kind when he once started. So, as soon as possible I took my departure and hurried home.

"The next day I received a note saying that papa objected strenuously (as I might have noticed the night before) and besides, she didn't want to marry anyone who was foolish enough to be caught in such a predicament. If I didn't quite agree with her, I wasn't prepared to argue the matter, especially at her house, and so let it drop. A few months after that, they moved away, and I never learned where they went.

"Soon after that my uncle, the only living relative I had, died, and I was left alone—ye, all alone," he mused, his voice growing sadder with every word. "The fact is, I haven't had a Christmas present in three or four years."

Cramer's story had different effects upon his various listeners. Mrs. Tacker seemed to have missed the latter part of his speech and commenced "cackling" away about "how romantic" it was for her father to appear on the scene. Phelps, on the other hand, felt genuine sorrow for his friend, as did everyone else but Mrs. Tacker.

Mrs. Phelps had intended to play "five hundred" during the evening and now proposed that they commence. Chairs were drawn around several tables and the game was about to begin when it was noticed that Cramer had no partner.

"Indeed, what a shame," began Mrs. Tacker—when the door bell rang and Mrs. Phelps was asked for. She hastened to the door and those waiting heard the following conversation:

"Good evening, Helen, I felt so lonely this evening that I thought I would come over for a while."

"I'm glad you did, Maud. Come right in, you're just in time; we're going to play "five hundred" and need one more to make the number even.

"What? Someone else here? I don't believe I'll stay, Helen; I don't feel like playing tonight."

"Yes, you must, my dear," and Mrs. Phelps half pushed the hesitating girl into the room.

As she stood there, in front of the background of curtains which hung beside the door, everyone was struck by her beauty. Mrs. Tacker noticed that even Cramer gave a little gasp and blushed as she came in.

Maud spoke to every one she saw and was sitting down when her eyes fell on Cramer, who was standing almost behind her. Mrs. Phelps was about to introduce them, when they grasped each other's hands like old friends. "Maud, you here?"—Frank, you here?" both ejaculated at the same time, and they all knew that "how romantic" wasn't so out of place after all.

The evening passed quietly and enjoyably. As the guests were departing Frank and Maud were talking together, having withdrawn from the rest as the game broke up. Conversation lagged and Mrs. Thacker reported the following: "Frank, why don't you say or do something? Everybody is looking at us."

"I haven't anything to say," replied Frank, "and because they're looking at us, is the only reason that I don't do something."

As he left that night, Frank grasped his friend's hand and said: "Gordon, Christmas has brought me as nice a present as it did you two years ago. This time I didn't wait to be alone; I asked her with a dozen people in the room and didn't get kicked out, either."

—H. G. C.

Athletics

OUR football season is over. Now hurrah for basket ball! As we look back over the past few months we find we have had a successful season. True, we have not been victorious in every contest nor could it be expected, as we played a harder schedule than was ever attempted before in the history of the institution. But we were victorious in the last big contest and as the old adage says, "When it ends well, all is well." Much credit is due to Coach Marshall for the successful closing of the season. The variety and style of play he developed in his team the last two weeks is nothing less than marvelous. Much credit is also due to Manager Bolley for the financial success of the season. Although we have gone to much expense and made many improvements this year, the cash book shows a considerable balance in our favor. We shall always look back with pride on the season of '05.

On Nov. 11th a double header of minor games was played on Fargo grounds. The first game was between A. C. third team and Casselton High. This was the first appearance of Profs. Holley and Pritchard's proteges on the home ground. Previously they had played a tie game with Casselton and lost a game to Wahpeton by a narrow margin of 12 to 10. The fans had expected a close game, but there was nothing to it. The light, speedy backfield ran all around the visitors and when the final time was called had piled up a score of 34 against the visitors 0. The whole team did fine work.

Immediately following this game the A. C. second team lined up against Moorhead High School. This game proved itself more interesting from the spectators' point of view. Fans and enthusiasts pronounce it the snappiest game played on the local gridiron this season. The Moorhead High proved themselves to be a fast, gritty, bunch, several of the members being old High School stars. The A. C. were heavier, but had not the speed and experience of their lighter opponents. Both teams showed up best on offence. Early in the second half Hallenberg kicked a field goal for the visitors from the 30 yard line. Only a few minutes more remained to play. It began to look as if the A. C. cubs should lose their only game of the season. At this critical point they took a decided race and with Haskins and White carrying the ball, the cubs crawled to their opponents' goal line. Haskins finally went over and the game was won, with only two minutes more to play. A. C. kicked out for a fair catch and failed. Score, A. C. Second 5; Moorhead High, 4.

A. C. 0; St. Thomas 28

On Nov. 4th the warriors from the saintly city, coached by Rogers, Minnesota's former crack end, lined up against the Farmers. They were by far the best seasoned team that met the A. C. on our local gridiron. They had the combined qualities of weight and speed, and knew how to use both to best advantage. Their formations got off with a dash and a force that was almost irresistible, a fact that showed much training and efficient coaching. The A. C. won the toss and chose to receive the kick. From the start the Farmers made good gains and carried the ball to the visitors' 30 yard line. Here the Saints saw the ghastly look in their coach's face that froze them into a "stone wall" and the ball became theirs. Now began an avalanche of attack that was both fierce and well directed. The Farmers would occasionally hold for downs, but were immediately forced to punt. The first half ended with 12 to 0 in favor of St. Thomas.

The second half was a repetition of the first. The visitors were forced to put in substitutes but the effect was to strengthen rather than weaken their offence. The A. C. fought gamely, but were outclassed and outplayed by a team that had a better developed teamwork and more experience.

A. C. 11; U. N. D. 11

Again the two leading institutions of the state have tried conclusions for athletic supremacy in football. Although the score was a tie, the A. C. virtually won a victory as we had the best of the contest throughout the game. Thus another victory is added to our number of victories over our rival institution. During the year we have met and defeated our rival in basket ball, base ball, in oratory, and finally on Nov. 18th, outplayed them in football. This was more than we dared to hope, and the result was a surprise to our warmest supporters who only demanded that we hold them down to a lower score than in the first game.

The Grand Forks aggregation, three hundred strong, arrived on their special at noon and were received by the A. C. band at the Great Northern depot. Headed by their band, the visitors marched down Broadway to the Prescott, where the U. team made their headquarters. Here the A. C. and the U.

band merged and gave several selections under Dr. Putnam's leadership. Before the game the Grand Forks adherents spent their time riding on the street cars and in visiting the college grounds. A few of them, however, spent their time in scribbling their football songs and jingles on our blackboards, the tone of which was mostly 40 to 0, and that they were going to show us how to play ball.

The day for the contest was ideal, and it brought out more than 1,500 people to witness the game, the largest number ever out to witness a football game in the Flickertail State.

The A. C. won the toss and chose to defend the south goal. Orchard received the kick and returned the ball 15 yards. By shift plays and line plunges the Farmers carried the ball steadily to the U. 1 yard line, where Gratias took the ball over. Early in the game Al Birch was dazed by a blow on the head that made him play mechanically the first half. His trial for goal failed.

The A. C. kicked to the U. who were held and forced to punt. Clement caught and fumbled the ball in mid field. The U. punted again to the A. C. 20 yard line. The A. C. made first down and then lost the ball on a fumble. Successive smashes over tackles by Gill and Peterson brought the ball to the A. C. 1 yard line, where Williams touched it to the goal line. A trial at goal failed. Score: A. C., 5; U. N. D., 5.

The U. kicked to Orchard who returned the ball 10 yards. Consistent gains by Wambem, F. Birch, Gratias and McDonell brought the ball to the U. 15 yard line where the A. C. held it when time was called.

There were no changes in the line up of either team in the beginning of the second half. The A. C. kicked off to the U. and after a few plays forced them to punt to the center of the field. An unfortunate fumble gave the ball to the U. on the A. C.'s 5 yard line. On a delayed pass Peterson made 35 yards around left. Spurred on by their success, the U. backfield worked like fiends, Gill finally going over for a touchdown and afterwards kicking an easy goal. The U. kicked to Dynes, who returned 15 yards. A. C. was forced to punt but regained the ball in the midfield on a fumble. Long gains by Al Birch, Wambem and Oshwald placed the ball on the U.'s 5 yard line, where the A. C. were penalized 5 yards for an offside play. Al Birch tried a drop kick which was blocked, the ball rolling to the U. forty yard line where Brannon fell on it. The A. C. regained the ball on a fumble on the U.'s 50 yard line, but were penalized 15 yards on first play for holding. U. got the ball on downs. A. C. held their 10 yard line, and took the ball on downs, but lost it again on their 22 yard line on a fumble. The A. C. again formed a stone wall and took the ball on their 10 yard line. Now began the most magnificent march up the field. The A. C. appeared stronger then when they started while the U. line seemed to be broken up and unable to withstand the heavy attacks of our guards and tackles. Al Birch finally hurled left tackle and kicked an easy goal thus tying the score. The crowd went wild with enthusiasm, while their vociferous applaud was deafening. Only four minutes remained to play. A. C. kicked to U. who were thrown for a 3 yard loss on the first play and forced to punt out of danger. The A. C. backfield now carried the ball to the U. 20 yard line where Al Birch was preparing for a drop kick when the U. time keeper rushed out and called time, thus preventing a field goal. Final score: A. C., 11; U. N. D., 11. Length of halves: thirty-five minutes. Referee: Thorson; Umpire, Grogan.

The A. C.-U. N. D. Game

ON Saturday the Forkers came,
 Three hundred, puffed and gay,
 With A. C.'s first a 'little' game—
 Of football for to play.

They thought our boys were easy meat;
 They thought to do them brown;
 With those two ringers, Gill and Pete,
 They had no cause to frown.

The U. has put its ringers in,
 Swift Gill and Peterson;
 Our boys will make them see their sin
 Before the day is done.

With mighty vim the game is fought;
 The first touchdown was made.
 "How lucky" is the ringers' thought,
 "That we have been prepaid."

The goal is missed, but, hang it all,
 We'll skin 'em anyway
 And show that team professional
 The proper way to play.

But no, that Peterson is quick,
 And Gill is like a fence;
 The Forks without them would feelsick
 And look like eleven cents.

They hit the line and drive the ball
 Across our goal line twice;
 Ye see, they have to win this fall
 To pay the team its price.

But they're all in; our boys have wind
 And pluck and strength galore.
 Those tricky Forkers quickly find,
 That they'll touchdown no more.

The game is fast; the U.'s eleven,
 Worn out, don't play so swell;
 And, half dazed, while they dream of
 Heaven,
 They are just catching h—l.

Keen is Fred Birch and Gratias now;
 And Swenson with huge strength
 That weak'ning Grand Forks line will
 plow,
 And knock their men full length.

There's Carpenter, our quarterback,
 Passing the ball with speed;
 And Wambem hits the line a crack
 That makes the 'varsity bleed.

And now Clement, our swift halfback,
 Round end begins his stunt;
 With Oshwald, Orchard, Dynes and
 Mac—
 Who says we'll have to punt?

We rip their line—O ain't they sore,
 They cry and curse again—
 A hundred yards, then Birch leaps o'er;
 The score is eleven to ten.

Al Birch is ready for the kick;
 His eye is always true,
 "Your kick can make the Forkers sick;
 Now, Al, it's up to you."

The goal he kicks, the score he ties,
 Triumphantly we yell
 While Grand Forks looks with pained
 surprise
 At Peter, and Gill, and Bell.

Again the A. C. swiftly goes,
 A-marching down the field;
 Each of our men is on his toes
 And makes the Forker yield.

The crowd is now convinced that we
 Outclass in every way;
 The Forkers lost their energy
 Too early in the day.

Before the A. C.'s rushing team,
 Like tooth picks they are dropped;
 That little Brannon-Sweetland dream
 Of victory is popped.

The signal for a drop is given—
 Ye gods! a moment's time
 And we will never pray for Heaven—
 On earth 'twill be sublime.

But no, the cursed whistle blows,
 The well fought game is done;
 Yet we, triumphant o'er our foes,
 The victory have won.—P. W. H.

Agricultural Notes

FRIDAY evening, December 1st, a regular meeting was held in Room 9, Science Hall, and a most excellent program rendered. A. W. Thomas presented a paper in which he discussed a few phases of the scientific side of plant breeding. The manner in which varieties were fixed, and methods of seed selection were especially dealt with. The next number was in the nature of a talk by Mr. Russel on "The Argicultural Club as a Factor in Education." Mr. Russel spoke of the fact that no other field of research offered greater opportunities for the investigator than the field of Scientific Agriculture. Lucrative positions were seeking men who possessed a thorough agricultural education. Aside from the commercial view point concerning the value of knowledge of this kind, the practice obtained in speaking or writing for a club of this sort proves a valuable asset to a student in after life. Good agricultural writers and speakers are very much in demand. The speaker in closing urged the members to participate in more of the literary activities of the college for only by so doing can one obtain the greatest good out of his college course. Two other papers were now read, one dealing with "Thanksgiving Day on the Farm" by Mr. Roaldson, and the other, "Thanksgiving Day in the City" by Mr. Points. Beside these a humorous reading from Will Carleton was given by Mr. Dynes. These numbers were all greatly enjoyed by the audience. At the close of the program Messrs. Thysell, Roaldson and Thysell were elected delegates to represent the club at the annual convention of the American Federation of Students of Agriculture which convenes in Chicago the latter part of December.

THE approach of the winter term is a reminder to those students interested in live stock, of the course in judging, which has been one of the popular features of the line of work carried on by the Agricultural Department. Heretofore, with insufficient help and limited supply of class specimens, the instructor has been greatly handicapped. This year, however, with six breeds of cattle and several breeds of sheep and swine for judging purposes, the course will be stronger than ever. It is the intention of Prof. Richards to offer an advanced course in this work. The announcement will be appreciated by the older students.

IT IS expected that a delegation of about fifty students and ex-students of the college will attend the International Stock Show, December 16-23. The college has been asked to send a representative to fill one of the numbers on the program of the American Federation of Students of Agriculture at their annual convention held in Chicago during Exposition week. Mr. John Thysell has consented to act and will respond to the toast, "Our Agricultural Professors," at the banquet given in honor of the occasion.

THE Tri-State Grain Growers' Convention will be held in Fargo, January 16-19, and good programs will beyond a doubt be given for the benefit of the crowds of visiting farmers. Prof. Spillman, of the Department of Agriculture, one of the leading authorities on the farm grasses of the United States, will be one of the many speakers. Every student interested in agriculture should make it a point to attend his lectures, as it is seldom one has the privilege of hearing such an enthusiast on his chosen line.

Science Department

MUCH work has been done the last few years by geological societies all over the world in searching for fossil remains of the pre-historic animals. In the United States the valleys of Wyoming have furnished the best specimens, but recently a bed of fossil remains of unknown animals has been discovered in Texas. The remains found are of a lizard even more ancient than the dinosaurs or ichthyosaur. It is known as the ship lizard. The full grown animal was about fifteen feet long and incased in bony plates. On its back were slender, flexible spines about four feet long. These spines were provided with cross-pieces and it is believed that membranes were stretched over the cross pieces. It is also thought probable that these membranes were used as sails to aid in swimming. Besides its odd appearance the fact that it has been classed with the family from which the animals of today have come, gives it an added interest.

THE government laboratory at Manilla is now completed and equipped with apparatus. It was erected by the civil government of the Philippine Islands for biological and chemical research work. It is a long low building with corridors running the full length and open at each end to give ventilation and coolness. The building is divided into two symmetrical parts, one for each department, with a library in the center. The power house is at the rear and here is also the serum laboratory. The building is also provided with gas generators, vacuum pumps and a refrigerating machine. The library contains 12,000 volumes of scientific works and many sets of public bulletins. The staff, headed by Dr. Paul C. Freer, from Michigan University, has issued twenty or more publications concerning the work done on the islands. The chief obstacle confronting the department at present is the difficulty in securing scientific workers who are willing to go into such an uncertain climate to work.

WE HEAR a great deal today, since the use of preservatives in canning foods is prohibited, about sterilization and pasteurization, but nowhere has this method been carried so far as at the Oregon Experiment Station where fruits and vegetables are being canned successfully without boiling or cooking. Dr. Pernot, who has the work in charge, says that the process depends upon pasteurization, which is heating the food high enough to kill the bacteria present but not nearly to the boiling point or enough to cook it. This must be done on several successive days in order to completely free the food from the bacteria which cause fermentation and decay. This progress does not change the flavor of the fruits or vegetables as heating to a higher temperature does and so will be of great value in the canning industry.

ONE of the recent scientific inventions, which is attracting considerable attention, is an instrument for the detection of radio active substance from the light they emit. This instrument, called "scintilloscope," is somewhat like a very small microscope. Inside of it is placed an amount of pitch-blend, (from which radium is obtained) and when one looks into it in the dark, a sparkling light can be seen coming from the ore. This sparkling is the visible evidence of a radio-active substance. That the instrument is very delicate and sensitive is shown from the fact that the amount of radium in such a small

quantity of pitch-would be immeasurably small since a ton only contains about a grain. Its practical use will be in determining new radio-active substance.

FOR some time the public has been watching with interest Mr. Burbank's experiments in plant breeding to produce new species of fruits and vegetables. His latest achievements has been the production of edible fruits on a spineless plant from the common desert cactus. If this proves successful, what a great benefit it will be to the arid districts in the western states. These localities may yet become productive without the aid of irrigation.

IT is an important matter to know the amount of heat necessary to kill typhoid germs in milk. It was formerly thought that 185°F. was necessary but investigation has shown that from 140° to 142° F. is high enough to destroy the bacilli. The Wisconsin Experiment Station gives 140°F., while foreign investigators give 142°F. but stated that this temperature should be kept up for about ten minutes.

THE Museum of National History in New York owns the oldest eggs in the world. They are turtle eggs and were laid some four or five millions of years ago. These fossil remains, which are about an inch and a half in diameter, were recently discovered in Wyoming, which state has furnished so many valuable specimens of immense ancient turtles. In the same beds were found many species of mammals including the earliest horse with two toes.

THE deepest gold mine in the world is at Bendigo, in Australia. The mine in question is called the New Chum Railroad mine, and its main shaft is sunk to the depth of three thousand nine hundred feet or only sixty feet short of three quarters of a mile. The chief problem in working this extremely deep mine is how to keep the tunnels and general workings cool enough for the miners to work in. The temperature—usually about one hundred and eight degrees—is terribly enervating; and, to enable the men to work at all, a spray of cold water is let down from above and kept continually on the miners.—*Ex.*

THE tallest people in the world are the Polynesians, that island race which includes the natives of Samoa, New Zealand, the Marquesas, and Hawaii. The average man stands five feet ten inches, whereas the average American man's height is five feet seven inches. The shortest people are the bushman of Africa, whose height is but four feet four inches.—*Ex.*

MY MARY

My Mary's eyes are brown,
Brown as the pollen pods that grow
Within the royal tiger lily's heart,
And from the depths of those bright orbs
There grows a wealth of purest light for me,
That warms my heart, whene'er we chance to meet.
Sometimes I seem to see within their brownest depth,
That something undefined, which almost tells
That could she know who pens these lines,
Her brown eyes' light would not all fail to greet me.

—Sent to Spectrum by an unknown student.

The Spectrum

Published Monthly by the Students of the
North Dakota Agricultural College

Entered at the Postoffice at Agricultural College,
N. D., as second-class mail matter.

TERMS

One year, prepaid, - - - - \$.75
Single copies, - - - - .10

Subscribers are requested to give prompt notice of any non-delivery or delay in delivery of magazines. All communications to be addressed to Business Department, "THE SPECTRUM," Agricultural College, N. D.

EDITORIAL STAFF

E. G. Schollander, '06 - - - Editor-in-Chief
F. Birch, '06 - - - Business Manager
H. Carpenter, '08 - Ass't Business Manager

ASSOCIATE EDITORS

Genevieve Holkesvig, '08 Literary
Bessie Rice, '08 Exchanges
Oliver W. Dynes, '07 Agriculture
Emily May, '06 Science
W. R. Porter, '06 Local
Karla Van Horn, '09 Local
John A. Swenson, '06 Athletics

EDITORIAL

SINCE this is the last issue of THE SPECTRUM before the holidays, we take the opportunity of wishing our readers a Merry Christmas and a Happy New Year, though we have all reached and passed the stage of anxiously awaiting the midnight hour, the jingling of the sleigh bells on the house tops, the rotund and soot besmeared Santa Claus, cautiously working his way down the chimney, to fill our stockings with the things we have been wishing for a whole long year, yet we all look forward to Christmas day and the little gifts it brings us, about as anxiously as ever. It signifies plainly that some of our childhood joys are carried by us through life. And why not? Life at its best is serious and if care and worry can be set aside for a few moments on Christmass day, to become a child again, everyone will feel better for it. Every year has its ups and downs for us all, but we hope that the outgoing

COLLEGE DIRECTORY

AGRICULTURAL CLUB

Wm. Lanxon President
C. M. Hennis Secretary

ATHLETIC ASSOCIATION

Charles Oswald President
John Weaver Secretary

GIRLS' ATHLETIC ASSOCIATION

Emily May President
Karla Van Horn Secretary

EDITH HILL CLUB

Genevieve Holkesvig President
Laura Morrison Secretary

ATHENIAN LITERARY SOCIETY

John Swenson President
Ruby Hicks Secretary

PHILOMATHEAN LITERARY SOCIETY

R. M. Dolve President
Laura Morrison Secretary

Y. M. C. A.

D. Glomset President
C. I. Gunnes Secretary

year has been a happy, prosperous one for our readers and we trust that the new year will be one of joy and success to all in the school and in the home.

A LARGE increase of students took place when the three months short course opened on the 16th of October. This short course in Agriculture and Mechanical Engineering is coming more into favor every year among the farming class. It is due perhaps to the fact that the rush of fall work is about completed when the term opens and the winter term closes in time for the general farm work in the spring. The farm boys are thus able to take advantage of the practical phases of improved farming and instruction in mechanical engineering given at the college during the slack season on the farm, thus preparing themselves to be better equipped to make farming a success and an attractive occupation, instead of drudgery and disgrace.

ALTHOUGH "Jack Frost" gave the farmers a severe scare during the first days of November, he fortunately

relented, however, and gave them another opportunity to complete their plowing this fall. The college authorities also took advantage of the warm days by grading up around the new buildings and filling up the low places and wagon ruts around the old ones, preparatory to re-seeding the lawns next spring. The hauling of the heavy loads of building material over the old lawns during the summer practically destroyed the growth of grass; so it was deemed advisable at this time to make a complete job of grading around all the buildings and again has as beautiful lawns as in the past.

OUR fall term of school is drawing to a close and it would not be out of place again to offer as advice to the students of the college the old moth-eaten adage, "to study hard" so as to be able to meet your professor and his examinations squarely in the face, when the trying ordeal comes of writing what you know and boring the teacher to death of reading what you didn't know. Don't idle your time away, study hard. Keep your head, write plainly and don't "pony." Under these conditions we are sure Professor Santa Claus will be liberal with you.

THE articles written in *Collier's Weekly* by Jordan on football professionalism, salary and graft, carried on by the coaches of Wisconsin, Michigan and Minnesota to make a winning team is enough to sour the stomach of any honest football enthusiast. Where and how Mr. Jordan has obtained his knowledge about the different teams is a conundrum. But when the names, photos and the manner of obtaining certain players are boldly published in a popular magazine without any denial of the authorities in charge, there must be at least some truth in the statement. Why some of the most

prominent institutions of learning will formulate a set of rules based upon pure and clean athletics and abide by them, then willfully and disgracefully violate them by underhanded dealings is excusably answered by saying, "They all do it." Why have any rules and regulations governing football players if they are not carried out by the ones agreeing to them? It would be far better under the existing conditions to have a "Free for all." The smaller institutions have also become infested with the same sort of deceptions and it is about time to have a general house cleaning.

THE large amount of snow that has fallen during the Thanksgiving holidays gives us a reminder of the Thanksgiving storm of 1896 when the railroad traffic was tied up for several days, and streets, alley ways and door yards were full of snow. Even some low buildings were completely snowed under. The old greenhouse at the college was completely under snow and nothing but the roof of the old heating plant popped its head out of the snow drifts. From the top of the stairs of the main building there was a huge snow drift extending clear across both roads to the campus. In front of Francis Hall, then used as a boy's dormitory, another huge and majestic snow drift loomed up and prevented a view of the rest of the buildings from the windows on the first floor. The drift was accidentally used as a toboggan slide by many of the girls during the remainder of the winter. Snow continued to fall at short intervals all winter until towards spring it ranged from two to five feet deep on the level prairie. The resulting floods all over the valley, no one has forgotten. Though old timers are already predicting high water next spring, we hope that the flood will not be repeated again.

Local Happenings

Miss Rice (in laboratory): "I want some iron pirates."

Two more diamonds out. Will wonders never cease?

Miss Ella Bowman of Kulm, visited college Monday, November 27.

There were six girls at the college Wednesday, the day of the storm.

Ask Al Birch what he would do if he got poisoned with phosphorous.

Mr. Sattre surprised everyone by his ability as an afterdinner speaker.

Miss Reid (at football banquet): "Now, girls, be sure to watch the silver."

Miss Laura Ueland visited the college on November 18th, the day of the U. N. D. game.

Stanley Tompson, a former student of Buffalo, visited the college and incidently took in the U. foot ball game.

Miss Emily May and her bunch of rooters won the rooting prize given by Prof. Bolley.

Miss Reid: "Bessie and Grace are the only girls who have a stand-in with the football team."

The many friends of Prof. Lindsay, formerly of the English Department, now of the High School of Commerce, New York, will be glad to hear of his engagement to Miss Kirchbaum, State Librarian of Harrisburg, Penn.

Prof. Bell (in Zoology desecting laboratory): "You girls may divide yourselves up anyway you please."

One of our girls "Hobsonized" Wambem just after the A. C.-U. N. D. game. Ask him how it happened.

What's going to happen! Sattre came out of his shell and took a girl home from church. And that's not all.

Prof. Keene: "Ah, I have lost my mind! Please hunt, everybody. Oh, never mind, I left it home on my dresser."

Miss Clara Kirk, of Niagara, formerly a student of the college, attended the U. N. D.-A. C. football game.

Rev. I. P. Johnson, of Minneapolis, gave a very instructive talk on "Character Building" during the convocation period of November 20th.

Prof. Holley, to girls in Chemistry class: "It may be well to remember that all face bleaches, hair dyes, etc., contain arsenic." A gentle hint, girls.

The Sophomore Chemistry class received a very instructive talk on diamonds last week. Evidently Prof. Holley has done some studying in this line lately.

O. A. Tompson, '01, now Superintendent of the Edgeley sub-experiment Station, was a caller at the A. C. and an enthusiastic rooter at the U. foot ball game.

Evidently some of the students didn't graduate from the grades. One of the things taught there is not to tell tales out of school.

Mrs. Hult arrived in Chicago and will remain there during the winter. Prof. Hult is now in Rome, where he will spend the winter in study.

It is heard that the manager of the girls' basketball team will have to procure a glass case for some players who are finding the game too strenuous.

Rev. Mr. Graves, of the Broadway M. E. Church, gave a very interesting talk on "What Makes the Successful Man after Leaving College" during the convocation period, December 4th.

Miss Louise Gastman, formerly professor of domestic science, was married on November 29th, to Mr. Louis Louban, of Decatur, Ill. They have the best wishes of her many A. C. friends.

Prof. Kimberley is looking rather gloomy these days.

Mr. Harry Fallis and Miss Gertrude Wright, both former students of the A. C., were married at the home of the bride's parents at Jamestown, N. D., November 22. Certainly a happy sequel to a friendship began here a few years ago.

Mrs. Ash entertained about a dozen of the foot ball boys and their lady friends at "hearts" on the evening of December 1st. Mr. Wambem and Miss Lofthouse won the first prizes. Mr. Oshwald and Miss Van Horn won the booby prizes. A light lunch was served, after which the guests departed having spent a very pleasant evening.

President Worst and Prof. Ladd have been attending the Convention of Agricultural Colleges in Washington, D. C. During his visit there Prof. Ladd called on President Roosevelt in the interest of the pure food measures to be taken up during the present session of Congress.

Judge Amidon spoke on "The Relation of Life to Education" during the convocation period of November 27. This was one of the most profitable chapel periods the students have had this year, for it is seldom they have a chance to hear a clearer or more forceful speaker.

We heard at the football reception that there was not a girl good enough, pretty enough or clever enough to wear an "A. C." in any way, shape or form unless she has played in a championship game. What about the girls that played in the U. N. D. basket ball game last winter? If the management won't present those girls with monograms it ought not to kick when they buy "A. C.'s" for themselves.

The Philos gave a hayseed dance in the Armory on the evening of December 2nd, to which they invited their friends and the Athenians. The boys wore their overalls and woolen shirts and the girls their calico dresses and sunbonnets. The floor was littered with straw, small piles of which were used in place of chairs and with the addition of two swings. The affair was made like a typical barn raising or husking bee of long ago. All came to have a good time and they certainly had it as they went through the old style dances and reels to the music of a couple of rustic fiddlers. May the Philos entertain again in the near future.

Our Exchange Table

THE *Clemson College Chronicle* for November is an excellent paper. It is full of good articles, most of which are strongly marked by their love of and pride in the South. Judging by the tone of one essay, "The Commercial Progress of the South," the East and West will have to look closely to their laurels, for the South is to become a second Constantinople; some day it is "to govern the commerce of the world." This article, though it seems to exaggerate slightly the relative importance of the South, is full of sound information presented in an earnest and decisive manner. "The Patriotism of the Southern People" cites forcefully the many examples of Southern valor and patriotism which have placed the heroes of the world. Overlooking the other articles, we give but passing notice of the stories. The first part of "Walker's Victory" is not as strong as it might be, though after the author becomes more interested in his story, it livens up considerably and becomes fairly exciting. "Southern Reminiscences" is a typical Southern story with an original incident introduced.

THIS month we received the *State Normal Magazine* from North Carolina. The love of country must be especially strong in the Southerners after all, for in this magazine, too, we notice an article on "The Coast Fisherman of Onslow County," a typical Southern fisherman, no doubt, and a very interesting character, too. The narrow, uncultured but yet sturdy, honest and entertaining old fisherman is pictured with charming vividness and color.

THE poems in *The Exponent*, Bozeman, Mont., though not of the most finished and perfect, still show some spirit and vigor. "The World's Thanksgiving" sums up all we moderns have to be thankful for, and it would seem that our blessings are many. One thing about this exchange which does not appeal especially to us, is the great number of little jokes which creep into the exchange department, apparently crowding out all kindly criticisms which "might have been."

THE *Comenian* contains a number of interesting articles for November. Among them is an article entitled "The Power of Personality." It is written in a straightforward, forcible manner and tends to show that in acquiring an education one must assert his personalities in order to attain the goal set before him. Personality is character in action.

WE noticed in *The Phreno-Cosmean* that Miss Gold Corwin, who has lately resigned her position as State Secretary of Y. W. C. A. of North and South Dakota, was married November 4 and will make her home in Pueblo, Mex. She was much admired by the girls at the A. C. THE SPECTRUM extends its heartiest congratulations.

A NUMBER of good short poems appeared in the *Normal Oracle*.

SHE—"You told me before we were married you were well off."

HE—"I was, but I didn't know it."—*Ec.*