Horticultural Notes.

The land for the sugar beet should be plowed in the fall, and after plowing, unless the land is very rich, apply plenty of well-rotted manure.

The potato blight is on the increase. Bordeaux mixture for blight and paris green for bugs will have to be kept in stock by the potato grower.

It is not much trouble nor expense to construct a hothouse for forcing early vegetables or growing vegetables in winter. The farmer can do this.

Antitoxin Serum in Austria.

Austria's report of the first year's experience of antitoxine serum is that out of 1,100 cases of diphtheria treated 970 recovered, a great improvement on the previous mortality. When the remedy was appled in the first two days of the sickness the percentage of deaths was only 6.7. Of 318 cases of preventive inocuation only 20 were attacked by the disease in a mild form and all recovered.—Chicago Inter Ocean.

A 50-Cent Calendar Free.

Perhaps the most beautiful Calendar issued for the year '97 is THE YOUTH'S COMPANION Art Calendar, which is given to each subscriber to the paper for the year '97. It is made up of four charming pictures, beautifully reproduced in twelve harmonious colors. It is in form a four-page folder which, when extended, is 10x24 inches in size. The subjects are delightfully attractive. This calendar makes a desirable ornament for a mantle, centre table or writing-desk. It is offered for sale only by the publishers of THE YOUTH'S COMPANION at 50c per copy. Only because of the enormous number published is it possible for the publishers of THE COMPANION to send it free to all COMPANION subscribers.

Still Emit Flame and Lava.

There is still conclusive evidence within the past half century that several of our great mountains in the northwestern part of the country, formed as they were by the piling up of volcanic matter, cannot be numbered yet among the wholly extinct volcanoes. North of Mount Hood, in the state of Washington, are the great peaks of Baker, Rainler and St. Helena, all of them mildly active.—Chicago Chronicle.

It is said that the color on the inside of the ear is an infallible guide in the selecton of a good butter cow. If the skin on the inside of the ear is of a rich yellow color, the cow is sure to give a good quantity of milk that is rich in butter.

The soja bean has given great satisfaction in the Ohio station. It is a hardy rapid grower, and gives a good yield of very rich forage. The black is the only variety that matures that far north, but the green makes better hay, as it holds its leaves better. For hay plant them with the grain drill; for seed, plant and cultivate as corn.

N. N. U. No. 420—1 York, Neb

THE BOOMING CANNON

RECITALS OF CAMP AND BATTLE INCIDENTS.

Survivors of the Rebellion Relate Many Amusing and Startling Incidents of Marches, Camp Life, Foraging Experiences and Battle Scenes.

Circled by Forts.

When the war cloud broke upon the country the position of the national capital was precarious in the extreme. The same stream that washed its wharves touched the opposite shore of an enemy's country, and in the State that surrounded it on the north the sentiment of the people could scarcely be called sympathetic with the government at Washington. So it was not surprising that the authorities at the home of the nation set about to protect it from invasion and violation. In a surprisingly short time a strong cordon of forts and batteries well equipped with ordnance and garrisoned by eager and willing men extended in a defiant circle around the city. It would take volumes to describe the difficulties that were overcome to establish this belt of protection, but these were largely of a material character, and were met in a great degree by the natural advantages of the surrounding country, which offered so many excellent points for fortification and embattlement.

On either side of the river, both in Virginia and Maryland, the hills presented a continuation of heights which commanded the territory lying beyond, and these were quickly taken advantage of by the engineer department of the United States army. Strong embankments were thrown up, powerful guns were placed in position, and in order to give the widest range for execution forests were leveled and in some instances houses and barns removed, so that the enemy would have no chance to come upon the city unawares. As the forts were erected and provided with their armament they were as quickly garrisoned by the troops that poured into Washington from the North, and many of the bravest and best of the soldiers who fought for the perpetuity of the government saw their first service in the forts around Washington.

By the first of January, 1862, the entire defensive line, mounting about 500 guns, was in an advanced condition, although not completed. It was not, indeed, until the summer of 1864 that they were in anything like a finished shape. When completed the works comprised sixty-two forts with forty-four supporting batteries, the whole having an armament of over 1,000 guns and requiring 16,000 men to properly arm them. The first suggestion to erect fortifications was made early in May, 1861, by Gen. Mansfield, who was then in command of the troops in this city, and he indicated Arlington Heights as the best place to begin. By the 24th of that month Forts Ellsworth, Runyon, Albany and Corcoran were established for the special purpose of the protection to the approaches of the bridges and ferries on the Potomac. It was not until the first battle of Bull Run had been fought, however, that a systematic plan of defense was thought of. After the battle of Bull Run the cluster of commanding heights four miles west of Alexandria and six miles from Washington were occupied by the Confederates, but in October of that year the hills were again takes possession of and fortified by the Union troops. The system of works constituting what are called the defenses of Washington were divided into four groups: First, those south of the Potomac, commencing with Fort Willard, below Alexandria, and terminating with Fort Smith, opposite Georgetown, comprising twenty-nine forts and eleven supporting batteries; second, Forts Ethan Allen and Marcy at the Virginia end of the Chain bridge, with their five batteries for field guns; third, those north of the Potomac and between that river and the Anacostia, commencing with Fort Sumner and terminating with Fort Lincoln, comprising nineteen forts, four batteries armed with heavy guns and twenty-three batteries of field guns; fourth, those south of the Anacostia, commencing with Fort Mahon at Benning and terminating with Fort Greble at Oxon run, nearly opposite Alexandria, comprising twelve forts and one armed battery.

Most of the heavy labor on the fortifications was done by hired laborers, but a good part was the work of the soldiers. Indeed, it became the aim and duties of the soldiers who were quartered in the forts to make them as strong and perfect as possible. The cost of the work, exclusive of armament, amounted to considerably more than half a million dollars. When they were first being erected there was a conglomeration of names, and the fortifications were named indiscriminately after States, cities and individuals, but in 1861 the War Department issued an order giving to the forts the names of distinguished soldiers who had lost their lives in defense of the flag.

Of the forts south of the Potomac, between the Long bridge and Arlington, which comprised Runyon, Jackson, Scott, Richardson, Barry, Craig, McPherson and Hagerty and Albany, the armament of the latter gives a good idea of the armament of all. It consisted of eighteen guns—thirteen twenty-four-pound barbettes, two six-pounder field pieces and three twenty-four-pound howitzers. These were manned by 183 gunners.—Washington Star.

Grant's Opinion of Sheridan.

Sheridan arrived in Washington on April 4. He had been worn down almost to a shadow by hard work and exposure in the field; he weighed only a hundred and fifteen pounds, and as his height was but five feet six inches, he looked anything but formidable as a candidate for a cavalry leader. He had met the President and the officials at the War Department that day for the first time, and it was his appearance on this occasion which gave rise to a remark made to General Grant the next time he visited the department: "The officer you brought on from the West is rather a little fellow to handle your cavalry." To which Grant replied: "You will find him big enough for the purpose before we get through with him."—Century.

The Soldier's Friend.

During the civil war Dr. W. T. G. Morton had many opportunities to demonstrate on the battlefield the value of his discovery of anaesthesia. In an interesting paper in McClure's Magazine his wife, Mrs. E. W. Morton, has included a portion of Dr. John H. Brinton's valedictory address to a graduating class of Jefferson Medical College of Philadelphia. The extract relates to the first meeting of Gen. Grant with Dr. Morton, and the anecdote is given from Dr. Brinton's personal reminiscences.

In the early summer of 1864, during the fierce contest in the Virginia wilderness, I was present officially at the headquarters of Lieut. Gen. Grant, on whose staff I had previously served. While I was in conversation with him an aide approached, and announced that a stranger, a civilian, wished to see him for the purpose of obtaining an ambulance for his personal use in visiting the field hospitals.

The answer of the general was prompt and decided: "The ambulances are intended only for the sick and wounded, and under no circumstances can be taken for private use."

This response was carried to the waiting applicant, a travel-stained man in brownish clothes, whom at the distance I thought I recognized. I went to him, and found that he was Dr. W. T. G. Morton. I asked him to wait a minute, and returned to the general.

On repeating the doctor's request, I received the same answer. "But, general," I ventured to say, "if you knew who that man is, I think you would give him what he asks for."

"No, I will not divert an ambulance to-day for any one; they are all required elsewhere."

"General," I replied, "I am sure you will give him the wagon, he has done so much for mankind, so much for the soldier—more than any soldier or civilian has done before; and you will say so when you know his name."

The general took his cigar from his mouth, looked curiously at the applicant, and asked, "Who is he?"

"He is Dr. Morton, the discoverer of ether," I answered.

The general paused a moment; then he said: "You are right, doctor; he has done more for the soldier than any one else, soldier or civilian, for he has taught you all to banish pain. Let him have the ambulance, and anything else he wants."

Afterward, during Dr. Morton's stay, by order of the general commanding, he was tendered the hospitalities of the headquarters, ambulance, tent, mess and servant.

Grant on the Field.

While the most critical movements were taking place, General Grant manifested no perceptible anxiety, but gave his orders, and sent and received communications, with a coolness and deliberation which made a marked impression upon those who had been brought into contact with him for the first time on the field of battle. His speech was never hurried, and his manner betrayed no trace of excitability or even impatience. He never exhibited to better advantage his peculiar ability in moving troops with unparalleled speed to the critical points on the line of battle where they were most needed, or, as it was sometimes called, "feeding a fight." There was a spur on the heel of every order he sent, and his subordinates were made to realize that in battle it is the minutes which control events. He said, while waiting for Burnside to get into position and attack: "The only time I ever feel impatient is when I give an order for an important movement of troops in the presence of the enemy, and am waiting for them to reach their destination. Then the minutes seem like hours."

He rode out to important points of the line twice during the day, in company with General Meade and two officers of the staff. It was noticed that he was visibly affected by his proximity to the wounded, and especially by the sight of blood. He would turn his face away from such scenes, and show by the expression of his countenance, and sometimes by a pause in his conversation, that he felt most keenly the painful spectacle presented by the field of battle. Some reference was made to the subject in camp that evening, and the general said: "I cannot bear the sight of suffering. The night after the first day's fight at Shiloh I was sitting on the ground, leaning against a tree, trying to get some sleep. It soon began to rain so hard that I went into a log house near by to seek shelter; but I found the surgeons had taken possession of it, and were amputating the arms and legs of the wounded, and blood was flowing in streams. I could not endure such a scene, and was glad to return to the tree outside, and sit there till morning in the storm." I thought of this remark while sitting by his bedside twenty-one years afterward, when he, in the last days of his fatal illness, was himself undergoing supreme physical torture.—"Campaigning with Grant," by General Horace Porter, in the Century.

France's population, according to the census taken last March, is 38,228,989, an increase of 133,819 in five years. The increase is confined to the cities, the rural communes all showing a decrease.

LITERARY LITTL-BITS

Mrs. Humphry Ward's "Sir George Tressaday" exhausted the first edition in London within a month.

Edward S. Ellis, producer of juvenile stories, has condensed "Plutarch's Lives" into a single small volume.

Rudyard Kipling is enjoying himself at Torquay and announces his intention of remaining at that snug Devonshire seaport until the early spring.

William Allen White, editor of the Emporia (Kan.) Gazette, is the author of a book of Kansas stories entitled "The Real Issue."

Anthony Hope's next novel will be called "Simon Dale," and will be issued serially in McClure's, begining in June, 1897. It is partly historical, the scenes being laid in the time of Nell Gwynn. The same author's "Phroso," which has awakened wide interest, will appear in book form in January.

Mr. Barrie has been visiting Boston and has also made a pilgrimage to the home of Miss Wilkins. Apropos of the rejection of the Macmonnies Bacchante by the trustees of the Boston Public Library some wag has suggested that Boston will not lack for art, since the notary will always have plenty of Barrie-leaves.

The Sawny Bean legend on which Crockett's "The Gray Man" is founded comes from the oldest extant "chap book," of which Mr. Crockett has a copy dated 1680. But the most reliable source of this historical romance is "The Historie of the Kennedys." The author declares he has stuck close to facts.

The new edition of the works and letters of Lord Byron, edited by W. E. Henley, is now on the point of appearance. It will consist of twelve volumes. The letters, diaries, and speeches are to be contained in four volumes and the verse in eight. The edition de luxe, at six guineas net, is for sale in England only.

A Dreadful Father.

The young man had called on the father of the loved one to ask his consent.

"I came to see you on a matter of business," said the young man.

"What business?" inquired the father.

"I love your daughter, sir," banged away the young man, though he wasn't half ready.

"Ah!" smiled the father.

"Yes, sir," said the young man.

"Indeed?" continued the father.

"Yes, sir," repeated the young man.

"Is that so, really?" went on the father.

"Yes, sir," still insisted the young man.

The father remained silent so long that the young chap thought he would explode if the old one didn't say something pretty soon.

"Um—er," began the old gent, "did I understand you to say you love my daughter?"

"Yes, sir," blurted out the young man, emphatically.

"Ah!"

"Yes, sir."

"Indeed?"

"Yes, sir."

"Is that so, really?"

"Yes, sir."

The young man wondered how long this kind of thing would continue.

"Uh—er," hesitated the old gentleman, "so you love my daughter?"

"Yes——" began the young man, and stopped. "I beg your pardon, sir, but I have told you that before."

"Told me what?" said the father, as sweetly as an angel might talk.

"Told you that I loved your daughter."

"Ah!" exclaimed the old gentleman, softly.

"Yes, sir."

"Indeed?"

The young man saw what was coming, and got hot in the gills.

"No, sir," he said, sharply.

The old gentleman looked at him in pained surprise.

"I thought you said you did," he said.

"Did what?" asked the young man, not exactly knowing what he was saying.

"Loved my daughter."

"I do, sir," quickly put in the youth.

"Ah!" smiled the father.

"Yes, sir."

"Indeed?" followed the father, as before.

It was too much for the poor young man.

"I beg your pardon, sir," he said, "but I think you are cruel, sir," and he backed out and left, while the old gentleman settled back in his easy chair and snorted a loud and emotional snort of triumph, short-lived though it may be.—Washington Star.

Flies' Ocean Journeys.

Among the things that furnish occupation for the eyes and minds of transatlantic voyagers are the house flies which accompany the great steamships from one side of the ocean to the other. In fine, sunshiny weather the flies buzz cheerfully about the sheltered places on the decks, and when the wind blows high they take refuge in the cabins and salons. The flies often remain with the ship while in port, and return with her on her next trip, thus crossing the ocean several times in succession, and perhaps spending the entire season at sea.

"How did you learn to skate?" a little boy was asked. "Oh!" was the innocent but significant answer, "by getting up every time I fell down."

It is not by any means the man who feeds the most that has the most that has the fattest and the best conditioned horses.

One of the surest and best ways of securing vigorous, thrifty stock is to select and mate good parents.

When it can be done in arranging the pasturage for the hogs give the brood sows the run of the wood land.

Rather more care is needed to not over-feed when ground feed is given than when whole grain is used.

For growing pigs milk and mill feed made into a slop with a little corn makes one of the very best winter rations.

Gentleness and firmness are two necessary qualities to be employed in the training of both horses and cows on the farm.—Farmers' Review.

Plan to make hog killing as easy as possible.

Don't waste time and effort trying to grow crops not adapted to your soil or climate.

Sheep manure contains a large per cent of the plant food contained in the rations they consume.

Wheat bran can nearly always be fed to young and growing stock during the winter to an advantage.

Keep all young stock growing steadily; feed of all kinds goes further with young stock than with old.

On many farms during the fall months is one of the best times to drain.

The corn shucking should be pushed now. Get it all under shelter as soon as possible.

It is poor economy to feed wet fodder to stock by scattering on the ground on a rainy day.

Strategic Movements.

First Boy—See here! Didn't I see you running down street yesterday with Bill Bounce after you, wantin' to lick you?

Second Boy—Y-e-s.

"What did you run for?"

"I—I was only running so as to get him away from home, so his mother couldn't see him fightin'; but by the time we was out of sight of his house we got in sight of our house; and then, as my mother would see me if I stopped to hit him, I went in, so as to be out o' temptation."—N. Y. Weekly.

When we reflect that a large proportion of milk is made up of water, we see the importance of furnishing the cows with pure water.

H. S. Matterson says: "I do not believe that a cow milks any easier for having her teats wet, any more than I believe a man can lift more when he spits on his hands."

What man has done, man can do. Many dairies have succeeded in getting their herds up to an average of 300 pounds of butter per cow per year. All should strive for it.

A fair estmate of hay for a cow is from 15 to 20 pounds per day. A milch cow will eat four or five pounds more than a dry one, and a large cow will of course eat more than a small one, under similar conditions.

Although the daughter of George W. Cable has recently married, she still keeps up her work of illustrating her father's writing.

Plenty of salt and water will help to maintain good health with hogs.

Just What He Wanted.

An evangelist who lives in the mission is so devout that he never permits himself to think a secular thought, and his tongue cannot frame a worldly word, The salvation of souls in peril is his single thought, his only occupation.

The evangelist has a very bright little daughter, five years of age. The other day she answered the door bell and found the coal man there with a bill.

"Papa is not at home," she informed him, "but if you will come in, you poor, perishing soul, mamma will pray for you."—San Francisco Post.