

ARMY IS PLACED ON TACTICAL BASIS

WASHINGTON, Feb. 15.—Reorganization of the United States army on the tactical basis, recently ordered by President Taft, to facilitate mobilization, became effective today. It divides the organization into four divisions—three infantry divisions, with headquarters in New York, Chicago and San Francisco, and one cavalry division, with headquarters in San Antonio.

Secretary of War Stimson says the reorganizations eliminates the necessity of sending army posts separate mobilization orders. "The importance of this reform," Stimson added, "will be appreciated when it is remembered that in 1911 it required 16 days to mobilize a single division of 12,000 troops in Texas.

In 1912 the Bulgarians required only 18 days to mobilize 250,000 men, cross the enemy's border and beat the Turks into submission."

The troops affected by the order are the Third battalion, Fourteenth infantry, moving from Fort Missoula, Mont., to Fort George Wright, Wash.; the Second battalion, Ninth infantry, from Fort Snelling, Minn., to Fort Thomas, Ky.; the First battalion and machine guns platoon, Eighteenth infantry, from Fort Bliss, Tex., to Fort Missoula, Mont., third battalion, Fourth infantry, from Fort Logan, Colo., to Fort Snelling, Minn.; Third battalion, Ninth infantry, from Fort Sheridan, Ill., to Fort Sill, Okla., and the Third squadron, First cavalry, from Boise Barracks, Idaho, to Presidio of Monterey, Cal., 2000 in all.

CITY HAS FIRST SPRING DAY OF YEAR

Spring was certainly a welcome visitor to Oregon City Saturday and all day long the city by the Falls was basked in the warm February sunshine that might have done honor to the sunny South, and far eclipsed anything on a February day that California ever boasted of. The streets were swarmed with persons.

Although there were no men's straw hats in evidence, the women were certainly on the job with the latest in Spring styles. Vacant streets and lots proved to be magnets for the children and the baseball made its first bow to 1913, with the appearance of young Frank Chances and Ty Cobbs. The roads were hardly dry enough for the speed demon to see whether he could put his speed up to 50 or not, but nevertheless the new pavement on Main St., set drew a few who have been using it for a race track for the past two weeks.

SOPHOMORES HAVE VALENTINE PARTY

The party held by the Sophomore class of the High school Friday evening in the Masonic Temple, was a marked success. The affair being held on St. Valentine's evening, all games and decorations were in harmony with the occasion. The heart contest was very interesting and Charles Beattie was awarded the prize. The prize for the song sketch was won by Ray Morris. The hall was prettily decorated with hearts, cupid, ferns and Oregon grape. After a number of speeches by the president of the class, Miss Dorothy Latourrette, and a number of the teachers, refreshments were served by the girls of the class. There were about 150 present. The committees in charge were: Invitation committee—John Halleson, Ester Downer and Ted Miller; Refreshment committee—Ruth Elkins, Ruberta Schaeber, Alvin Wiewesick, Everett Cross and Grace Spiger; Social committee—Freida Martin, Gladys Green, Walter Disney and Walter Elliott; Decoration committee—Eva Dye, Allie Leavitt, Tiera McKuene, Pearl Heaton and Francis Curran.

VIENNA, Austria, Feb. 15.—That relations between Austria-Hungary and Russia are in a dangerous state of tension, was again indicated today by an alarmist editorial published by the Reichspost, the organ of the Aus-

AUSTRIA-HUNGARY AND RUSSIA NEAR WAR

trio-Hungarian heir apparent, Archduke Franz Ferdinand.

The writer declares that the days of the conference between the Ambassadors of the powers in London are numbered "as the differences existing between Russia and Austria-Hungary on Albanian questions are far too great to be bridged over by such means."

He adds that the London conference could not be expected to succeed when he carried an autograph letter from Emperor Francis Joseph of Austria to Emperor Nicholas of Russia.

APPRECIATION.

Love never seems so clear and easy as when the heart is beating faster at the sight of some generous, self-risking deed. We feel, no doubt, then what the highest prize the soul can win; we almost believe in our own power to attain it.—George Eliot.

EXPERT'S REPORT

(Continued from Page 3.)

fecting coat of gravel supplied. The filters are equipped with the standard mechanical rake agitators used in the Jewel type of filters for the purpose of more thoroughly breaking up the beds during the periods of washing.

A constant head of water is maintained on the filters by means of butterfly valves. The filters are not equipped with gauges to show the loss of head caused by the collection of dirt on the sand beds or with rate controllers, which when set at a maximum capacity for which the beds are designed, will prevent them from delivering a larger quantity of water. The absence of the loss of head gauges is of minor importance as a small amount of experience will show the operator when a filter needs cleaning. The absence of rate controllers is ordinarily of considerable importance as it is always possible that a mistake can be made in setting the outlet valves thus allowing the water to pass through the filters at an excessive rate. This feature has been overcome in the construction of this plant, however, by its being so arranged that the difference in head between the settling basins and the filters is not sufficient to allow the water to flow through the six inch pipe supplying the filters at a more rapid rate than that for which the filters are designed to handle it and in no way needed.

The washing of the filters is accomplished by means of a two million gallon capacity Morris Centrifugal pump which takes its supply from the filtered water well. The pressure and amount of water furnished is ample and produces a very effective wash. This is best shown by the present condition of the sand beds, after several years of use, the sand is perfectly clean with no caking of the beds and containing no mudballs. The size and grading of the sand is good although it is somewhat deficient in material of the very fine grades but as none of the coagulant passes the surface of the sand, it would be inadvisable to endeavor to change the grading at this time. Several tests were made with hexamethylenamine on the effluent coming from newly washed beds and although the titer is small yet there was no trace of it in the effluent.

Under the filters is a concrete reservoir having a capacity of seventy thousand gallons, which receives the water coming from the filters and from which it is pumped either direct into the mains or into the storage

reservoir located on the hill back of the city. The water furnished to the town district is pumped direct into the mains by one Gould Duplex pump of one million gallons daily capacity and maintains a pressure of sixty pounds. The hill district is supplied from the reservoir into which the water is pumped by two pumps of the same size and type at a pressure of one hundred and eighty pounds.

The storage reservoir is uncovered, of concrete construction and having a capacity of one million four hundred and protected by a high wire fence but should be covered with some kind of a roof, not only to protect it from possible outside contamination but because a filtered water is very susceptible to organic growths. An underground water or one coming from the dark should be stored in the dark while a surface water or one coming from the light is better stored in the light and as a filter water although coming from the light takes on the characteristics of a deep seated water it should be stored in the dark. It was noticed that on the bottom of the reservoir there was a slight sediment which upon investigation proved to be form of algae growth which is entirely harmless but undesirable. Its presence would undoubtedly be prevented if the reservoir were covered.

Regarding the operation, with but four exceptions the general procedure is carried on correctly. It was found however that number four filter which contains eight inches of gravel will operate more rapidly than the other three which contain no gravel when the outlets are set at the same opening and for this reason, this filter must have separate ratings in order to have the work evenly distributed. It was also found that when the river was carrying considerable silt and the filter became stopped up more readily than at other times, it was customary to rake the top of the beds in order to prolong the period before washing. An explanation was given the superintendent why this was not conducive to efficient operation and the practice has since been to wash all the beds at practically the same time. Inasmuch as a filter does its best work just before it is washed and its poorest immediately afterwards, the washing periods should be so arranged that there is only one new bed in operation at a time. With these exceptions which are readily changed without difficulty, the "initial" of operation is otherwise satisfactory.

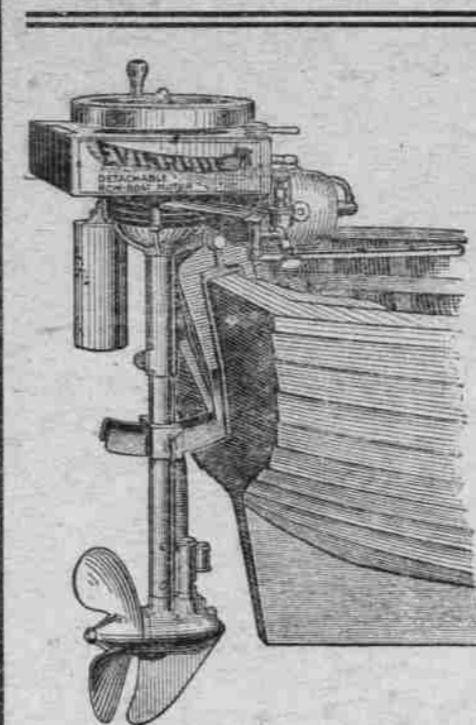
Regarding the super-saturation which is maintained, the plant is materially deficient. The operation of any water purification plant should be strictly under laboratory control and the results of these findings be the guide by which all work is carried on. For instance, the amount of coagulant used, should be increased according to the number of bacteria and the turbidity of the raw water as well as the bacterial efficiency of the filter effluent. The present procedure is to feed the coagulant by guess and as long as the water coming from the filters is clear the operator has done all he can do but at the same time the bacterial life which is the only problem to be feared may not have been satisfactorily cared for. He can not miscellaneous increase this coagulant as he does not know the alkalinity of the raw water and as it is possible to add more aluminum sulphate than can be hydrated by the alkalinity, there is danger of allowing an acid water containing free aluminum sulphate to go to the consumer. During this investigation the alkalinity of the raw water was found to be thirty-five parts per million and the filtered to contain fifteen parts per million. This condition is very satisfactory but as the alkalinity changes with the different stages of the water and as the water at this time was very clear with only a small amount of turbidity, it is possible that during periods of high turbidity the alkalinity may not have increased sufficiently to meet the demands of the coagulant needed properly to filter the water. There are no recording devices on any of the pumps to show during the day and thereby determine the pumpage. Consequently no accurate knowledge may be had of the amount of water consumed and therefore the amount of aluminum sulphate used per gallon is an entirely a matter of guess. Recording devices should be supplied and records kept in order that the coagulant may be supplied in a more scientific manner, as this is one of the important parts in the operation of a purification plant. Samples of water were taken from different parts of the system and show the following results:

Table with 4 columns: Sample Number, Source of Sample, Bacteria per 100, B. Coli. Rows include Raw Water, Settled Water on No. two filter, Filter No. one before washing, etc.

average amount used in the eastern and middle west cities is only ninety gallons per capita it would seem that a goodly allowance had been made. With these facts at hand and a knowledge that the plant has in every department a capacity of two million gallons daily or double the present consumption, there is no question as to its being able to meet the present as well as the future demands for sometime. The design and installation are in every way satisfactory and the upkeep in excellent. The bacteriological results point if properly operated will do all that is required of it and if the water has at any time in the past been faulty it was due to improper operation and not to the incapacity of the plant.

The company have ordered a plant for the application of hypochlorite of lime to be used as an additional to the filtration when necessary. While it can not be said from this investigation that the installation of this plant is an actual necessity, yet it is a very valuable adjunct and when installed will make the entire system as complete and valuable as can be obtained and if the operation is put under laboratory supervision the people of Oregon City may be assured of a water supply that is eminently satisfactory in every way. Respectfully submitted, J. H. BREWSTER, Sanitary Engineer.

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CORRESPONDENCE DOVER. A. J. Morrison was called to Scholls last week to help care for his granddaughter, who is very ill. Mr. and Mrs. Kleinsmith and daughter returned Friday from a trip to Oregon City. The County Timber Cruisers are at work in this neighborhood. Mr. M. M. Reid left Monday for a two weeks' trip to Portland and Salem. Miss Leah Morrison returned to Portland last week. Mr. Hoffman, the Sandy butcher was buying cattle in the George and Dover neighborhoods last week. Miss Ira and Clinton Reid took dinner Sunday with Mrs. Bews. Mr. and Mrs. DeShazer had as dinner guests Sunday Mr. and Mrs. Keith, Lulu and Rida Roberts, Willie and Irving Updegrave and Hollister S. Killen. C. A. Keith made a business trip to Oregon City last week. M. M. Reid was home for a few days last week. He returned to his work Friday.

Suggestive in Questions Sunday School Lessons

(35) Even if you neither attend church or Sunday school, and never expect to, if you are a man or woman of any thought, your life will be enriched, and the outlook for the future will be made bright, by reading the Suggestive Questions on the Sunday school lesson, which are to be found each week in our columns. Just put our words to the test.

Your Questions Answered

If you would like to have answered any particular question each or any week from "The Suggestive Questions on the Sunday School Lesson" by Rev. Dr. Linscott, send in your request to this office giving the date of the lesson and the number of the question you wish answered. You may select any question except the one indicated that it may be answered in writing by members of the club. Dr. Linscott will answer the questions either in these columns or by mail through this office. Don't forget to state what benefit these "Suggestive Questions" are to you. Give your full name and address. Send your letters to the Question Editor of the Morning Enterprise.

Questions for Feb. 16

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The Call of Abram. Gen. xii:1-9. Golden Text—I will bless thee and make thy name great, and be thou a blessing. Gen. xii:2.

(1) Verse 1—How had Abram learned to know the voice of God?

(2) What reason is there to suppose that every man has the potential power to hear and understand the voice of God?

(3) Where was Abram residing at this time?

(4) When a godly man leaves the old country to reside in this country with the conviction that it is the will of God why is not God speaking to him precisely as he spake to Abram?

(5) When honeybees "swarm" why would it not be right to say that God causes them to do so?

(6) Verse 2—How has God's promise to Abram that he would make of him a great nation been fulfilled?

(7) In how many important respects have Abram and his descendants been a blessing to the world?

(8) Verse 3—What nations in the past have persecuted the Jews, and what punishment has God inflicted upon them as a result?

(9) Has the promise, "In thee shall all families of the earth be blessed," been fulfilled and if so, how?

(10) Verse 4—If Abram had been in doubt about obeying God and had delayed his departure, what probably would have been the result?

(11) At what age is a man too old to start for a new country or take up a new enterprise to better his condition? Why?

(12) Verse 5—When we have anything good from the Lord, why ought we to be anxious to share with others (This may be one of the questions which may be answered in writing by members of the club.)

(13) If a man says he is on the road to the heavenly Canaan and takes no person with him, what would be your assumption?

(14) What grounds for certainty have we of reaching the land or attaining the object that God has promised us?

(15) If a man starts for heaven, may he, or not, and why, be certain of getting there?

(16) Verse 7—Is God as able, and as likely, to appear to us in one place as another? Give your reasons.

(17) What imagination have you of the way or manner in which God appeared to Abram?

(18) Why would you say, or not, that it is a rule with God to frequently repeat his promise to the faithful soul?

(19) What is among the first things a good man does when he gets to a new country?

(20) Verses 8-9—Is there or not, and why, any place or condition to be attained on earth in which we cannot make further progress? Lesson for Sunday, Feb. 23, 1913. Abram and Lott. Gen. xiii:1-18.

If There Be Eels in the Mud. No matter how deep and muddy a hole be, if it be known that eels are to be caught there, the people will get into the mud and search for them. So, no matter where you were born or how lowly your station in life may be, if you are men of character, scholarship and ability, you will be sought after.—Ninomija Soutaku.

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