

MOVING A BIG ARMY

Transporting Troops in Time of War is a Gigantic Task.

A WORK OF INFINITE DETAIL.

What It Would Mean in Railway Cars of Various Kinds and in Supplies and Equipment to Carry a Million and a Half Men Across the Country.

Before a body of troops is entrained the time and place of every move are mapped out, including the date and place of entraining, destination, time of arrival, route, assembly point, time of troops leaving assembly point, route of assembly point to train, time of arrival at station, time of boarding train, time of departure of train, rate of travel over each section of route, time, place and duration of stops; time and place of feeding troops and animals and a schedule showing the assignment of troops and equipment to each car. Aside from these are countless details connected with procuring supplies, the disposal of troops and their care.

All these preliminary arrangements must be made by an officer of the quartermaster corps. The first thing to be done is to procure lists with weight of all property to be shipped, obtain this material and make out the bill of lading. This, with the number of men and officers, constitutes a basis on which he estimates the number and kind of cars needed. He then engages the cars and provides loading facilities, such as material for blocking and lashing, and constructs necessary ramps, or runways, for entraining animals or wagons.

Next, on the arrival of the cars, he inspects them from a thousand major and minor angles. All cars must be clean. Passenger cars must be fully supplied with water and ice, sufficient lighted and heated and all other appliances in proper condition. Stock cars come in for special attention.

Then the number of men or kind and quantity of supplies allotted to each car is marked on the side or steps, together with the name of the organization. In loading men three are assigned to each section in tourist sleepers or three to each two seats in a day coach.

Another important point is to keep the troops of each unit with all equipment together. This is important in case of sudden attack. Imagine the fate of a unit of troops suddenly derailed at the firing line without equipment!

A possible element of delay lies in the timing of the arrival of troops at the station. There must be no time lost by cars waiting for the troops. The facilities for loading animals and wagons at each station on each route should be part of the quartermaster corps' records. Quick and noiseless loading and unloading of animals without confusion are an art in themselves. Dispositions of individual animals must be studied. Gentle animals should be placed opposite doors and therefore loaded last.

The time of loading and unloading has been carefully tabulated and should not exceed the following: Infantry, one hour; cavalry and light artillery, one and one-half hours; heavy artillery and engineers with bridge train, two hours. All movements, loading, entraining, detraining, feeding and watering and exercising men and horses, are made in military fashion.

With each train kitchen cars are provided. Otherwise baggage cars are fitted up by troops or arrangements made for procuring meals, or at least liquid coffee, at stations en route. Feeding of men and animals is in itself no small matter. Say the war department was called upon to transport twenty field armies of 82,000 men each, or 1,640,000 men. In moving such a military force the railroads must carry, besides the 1,640,000 men, 700,000 mounds and draft animals, 60,000 vehicles and 3,300 big guns.

To accomplish this the quartermaster corps must have available at the right points 42,300 passenger coaches, 7,700 baggage cars, 21,100 box cars, 37,080 stock cars and 15,500 flat cars, making a total of 124,580 cars, or 7,320 trains with as many engines.

Here is the government's minimum estimate of the gross weight of materials needed each month by this force of 1,640,000 men: Rations, 250,630,460 pounds; ammunition, 7,046,100 pounds; forage, 623,147,000 pounds; general quartermasters' supplies, 33,794,440 pounds; clothing and equipment, 22,680,340 pounds; ordnance supplies other than ammunition, 1,622,740 pounds; engineers' supplies, 12,208,320 pounds; signal supplies, 9,043,290 pounds; medical supplies, 597,100 pounds; candy and tobacco, 319,680 pounds, making a total of 961,089,100 or nearly 1,000,000,000 pounds. The transportation of this enormous weight would require fifty-five trains of thirty cars each day as long as the force was in the field.—Leslie's.

To the Ladies.

Ladies, if you love a man marry him. If you marry him know him. If you know him study him. If you study him know him. If you know him flatter him. If you flatter him you will know him. If you know him you will study him. If you study him you will know him. If you know him you may divorce him.—Life.

Do not make deposits of carelessness in the bank of misery.

DEATH TO THE MOSQUITO.

Attack the Pest by Warring Upon Its Breeding Places.

By doing away with breeding places, such as tin cans, broken crockery and various receptacles that hold water, by the drainage of bodies of water likely to contain immature mosquitoes, by application of oil to bodies of water that cannot be drained or the introduction of fish into pools that cannot either be drained or oiled millions of mosquitoes may be destroyed.

Water is necessary for the life of the mosquito. The eggs which are laid on the surface of the water by the adult mosquito hatch in from twenty-four hours to several days, depending on the temperature. The larvae issue from the lower ends of the eggs and wriggle about in the water.

The larvae of the house mosquito rest with the tips of the abdomen at the surface of the water and the heads hanging downward. The larvae of the malaria fever mosquito lie parallel with the surface of the water to obtain air. In from one week to ten days they change to another form, the pupae, which have two respiratory tubes on the thorax. These pupae float in the water and transform to adults in from five to six days. The adults winter in the dormant condition.

The germ causing malaria fever has been carefully and repeatedly traced through its life history, and it has with certainty been found to pass a part of its existence in man and part in the body of the mosquito. By the bite of the mosquito the malarial fever organism is transmitted to man. No practical methods have been devised to destroy adult mosquitoes. All successful methods so far have been to check their numbers by either doing away with hiding places or by destroying the young mosquitoes.

Kerosene oil applied to the water surface at the rate of one-half teacupful to one barrel of water or one ounce of kerosene to fifteen square feet of water is sufficient to destroy any young mosquitoes that might be present in the water. An application of the kerosene should be made every fifteen days.

RHODES DIED UNSATISFIED.

His Last Words Were, "So Little Done, So Much to Do."

"So little done, so much to do." This was the sigh of Cecil Rhodes, one of the greatest men the world ever knew. John Hays Hammond, who knew him well, tells about Rhodes in the American Magazine. He says:

"The achievements of Rhodes are almost unthinkable. Long before American trusts were attempted he formed what was then the greatest business combination in history and became absolute autocrat of the diamond business of the whole world. He organized a huge consolidation of gold companies. He was the first financier courageous enough to institute deep level mining on the Rand, the method on which now depends the future of the greatest of all gold fields.

"No Roman emperor ever won more territory than Rhodes brought under his native British flag. Through the chartered company, incorporated in 1889, he added to the British colonial dominions territory equal to the combined areas of the British Isles, France, Prussia, Austria and Spain. He made possible the federation of all South African states and planned to link Cape Colony and Cairo by rail, a project that he carried halfway to fruition before he was cut off by death when he was only forty-nine years old.

"Yet with this record of empire building behind him his last words as he lay dying were these:

"So little done, so much to do."

Health Examinations. "Periodic health examinations are the best safeguard against degenerative diseases," says a leading physician. "It is as foolish for a man to neglect his health and not consult a physician until he suffers acute pain as it would be for a business man to go without having his books balanced until after he had gone into bankruptcy. Every man should be compelled to take a physical examination and learn just how he can improve his health. To know what you lack is the first step toward getting it."

Chances For Success. I have many times been asked, if in my opinion, the young man of today had as good chance to make his mark in the business world as did his elders. My answer is, "Never since our pilgrim fathers landed on the shores of Plymouth were the opportunities for the young man's success greater than they are today. It is for him to determine whether he will be a success or not."—Stephen A. Knight.

A Mathematician. "Daddy," said Bobby, who was eating an apple, "what would be worse than finding a worm in this apple?" "I do not know, son, unless it would be worse to find two worms."

"No," said Bobby. "It would be worse to find half of a worm."—Everybody's.

So He Does. "Why don't you open the door? That may be opportunity knocking."

"It's much more apt to be a bill collector."

"Well, if you only knew it, a bill collector offers a good opportunity to get out of debt."—Birmingham Age-Herald.

The Ideal. "I expect to have a great deal of trouble breaking in our new cook."

"Oh, you just let her alone and she'll attend to all the breaking."—San Francisco Chronicle.

FAMOUS TUNNELS

The Simplon Is the Greatest and Costliest of Them All.

LONGEST HOLE EVER BORED.

This Road Through the Alps Is More Than Twelve Miles in Length and Its Cost Exceeded Fifteen Millions—Our Own Hoosac Tunnel.

The costliest as well as the biggest railroad tunnel in the world is the long hole burrowed below the Alps between Brigue, Switzerland, and Iselle, Italy.

This tremendous tunnel, the Simplon, is 12 miles 637 yards in length and cost more than \$15,000,000. Several millions more will be spent in completing the second chamber. Work was begun on it in 1898, and traffic began to move through in 1903.

The Simplon is about three miles longer than the St. Gothard and the Loetschberg tunnels and more than four miles longer than the Mont Cenis, the three next longest of the world's railway tunnels.

The Mont Cenis was the first of these big bores. It was completed in 1871 and at once diverted passenger and freight transportation away from Switzerland, as it furnished a direct route to Italy from southeastern France.

The Swiss determined to win back their lost traffic, and in 1871 work was started on the St. Gothard, which was not finished until eleven years later. The St. Gothard is about nine and one-third miles in length and cost \$11,500,000.

In its toll of lives it was the costliest of all. Faulty ventilation, the terrific heat and the lack of care in keeping down the dust caused the deaths of 800 laborers. This tunnel is wholly in Swiss territory, and eight years ago it was bought from the owners by the government.

The Simplon, located about halfway between the Mont Cenis and the St. Gothard, is a double tunnel, although only one chamber has been wholly excavated. The other will be enlarged and put into service when the first becomes overtaxed. Better arrangements for ventilation kept the death toll down to sixty, twenty-five cubic feet of fresh air being supplied to the laborers for every one blown into the St. Gothard.

The difficulties conquered were tremendous. The Simplon is not only the longest, but the lowest of the Alpine tunnels, and the rock temperature sometimes reached 133 degrees.

When the workmen from the Swiss side reached the center of the great bore they were halted by an enormous spring of hot water. Then the Italians were stopped, and for some time it looked as though the whole work might have to be abandoned. But the engineers refused to be daunted, although six months were required to dig out the last 300 yards of the tunnel.

So slight were the errors made in the digging that the headings from either side met with deviations of but eight inches internally and three and one-half inches vertically. The total length of the tunnel was thirty-six inches less than had been calculated. Trains are pulled through the tunnel in eighteen minutes, at the rate of forty-two miles an hour, by powerful electric locomotives.

The Loetschberg is the latest of the big Swiss tunnels. This is about the same length as the St. Gothard and is also wholly in Swiss territory, being located to the north of the Simplon. It is a part of the Bernese Alps railway, which has thirty-four tunnels in its forty-eight miles between Thun and Brigue.

The Simplon will apparently remain the biggest of railway tunnels until a submarine one is driven under the English channel or perhaps under Bering sea. At present the longest projected mountain tunnel in Europe is a French undertaking, which is planned to pass directly under Mont Blanc, the highest mountain in Europe, and to form another highway between France and Italy. But this tunnel will be only a little over eleven miles long, so that it will be merely second in rank if it is carried out.

The Hoosac tunnel, in western Massachusetts, was the first really big tunnel in the United States. Begun in 1855, it was not finished until 1876. Air drills and nitroglycerin were used in this work for the first time on a big scale in any American engineering work. The Hoosac tunnel is four and three-quarters miles in length.—Boston Post.

Geologist's Thermometer. Quartz is the geologist's thermometer, for it is formed between narrow ranges of temperature. If the materials from which nature makes it are subjected to more than so much heat they take on an entirely different character from quartz. The same is true if they are subjected to less than a certain amount of heat.

None Worth While. "There is one thing I am rather worried about in this suburban club business."

"What is that, my dear?"

"Do you know if they serve cakes with these golf tees?"—Baltimore American.

An Improvement. "He left his home all for her."

"Why so?"

"Well, you see, hers was the better home."—Penna State Froth.

To double your troubles and lessen your friends talk about them.—Youth's Companion.

LIFE ON A SUBMARINE.

Physical Evils That Come From Long, Continuous Duty.

According to Assistant Surgeon Walter W. Cress of the navy, long, continuous duty on submarines is conducive to high blood pressure, with its attending evils.

"Whether that is due," he says, "to mental strain, loss of sleep, overeating with lack of exercise, excessive use of tobacco, coffee and tea or some toxic agent peculiar to submarines I am unable to say. It was noted that a slight fall occurred after a forty-eight hour surface run and a three hour dive. Undoubtedly that could be accounted for by fatigue or lack of physical exercise during the preceding forty-eight hours."

One effect, natural under the circumstances, he says, was that of loss of weight, and it is observed that there is probably no occupation, excepting that of a boilermaker, giving rise to as many cases of partial deafness as submarine duty. It is not uncommon, he says, for men to report that they have increasing difficulty in hearing the commands. That is attributed to the constant vibratory movement of the submarine, the straining of ears to hear above the noise of the engines, the presence of cold drafts of air down the hatches while operating on the surface, the excessive heat while running submerged and the inhalation of gases given off by the batteries and fumes from oil tanks.

"It is becoming more and more apparent," concluded Dr. Cress, "that all men should undergo a thorough physical and mental examination before being assigned to submarine duty."—Washington Star.

CUTTING THE ROSES.

How to Remove the Flowers Without Injuring the Plants.

There is a right as well as a wrong way to cut roses. If not cut correctly the blossom producing properties of the plants may be seriously injured. This applies particularly, of course, to rose plants chosen and grown especially to supply cut flowers. Such roses will be largely of the perpetual blooming sort.

When a rose is cut from such a plant only two or three eyes of the current season's growth of that branch should be left on the plant. This should give the roses very long stems. Succeeding blossoms should be cut to the ground. It will seem like destroying the bush to take so much off, but if the object is the production of roses the cutting away of the surplus wood will simply further the desired end.

If the spring pruning has not been sufficiently severe the plant is likely to have long, naked stalks and short stems to the flowers. In such a case only one or two strong leaf buds should be left on the branch when the flower is cut, so as to stimulate as much growth as possible from the base of the plant.

The temptation is great to leave wood where there are two or more buds on one branch, some being small when the terminal one is open. This bad practice can be avoided by pinching off all side shoots after a bud has formed on the end of a branch, thus leaving the stem perfectly clean and willowy.—Popular Science Monthly.

Corn Bread.

In making corn bread be sure to get the proper kind of meal; otherwise it needs flour to keep it together. Ask for the old southern milled cornmeal. It is very fine, white and needs no flour. A good recipe for corn bread is as follows: One and one-half cupfuls of cornmeal, one-half cupful of milk, a pinch of salt, a piece of butter the size of an egg, one-half teaspoonful of baking powder and one egg. It must not be too stiff. Put in a pan that will make the batter about one and one-half inches thick and bake till brown. It is impossible to make the southern corn bread with the coarsely milled meal, says a southerner.—New York Sun.

Animal Criminals.

As a species of hardened criminal among placid herbivorous animals none is worse than the bison, or American buffalo. Toward man and beast and even among themselves these vicious, vindictive and agile brutes, whose half brothers on the other continents do not fear even the terrific onslaughts of lions and tigers, are in a state of almost continual warfare. They are among the wickedest rogues ever seen in a zoo.

Pride a Strange Thing.

Pride is a strange thing. For instance, a man would much rather be seen by the younger and prettier set of neighbor women filling up the gasoline tank than emptying the garbage, though the latter act is really much more commendable in that he just does it to help his poor, hardworking wife that much.—Columbus (O.) Journal.

Patience.

Enter into the sublime patience of the Lord. Be charitable in view of it. God can afford to wait. Why cannot we, since we have him to fall back upon? Let patience have her perfect work and bring forth her celestial fruits.—G. Macdonald.

The Fine Art of Visiting.

"Visiting is an art," says Woman's Home Companion. "To make people feel at home in their own house when you are there is the highest point of human conduct."

The uncertainty of death is in effect the great support of the whole system of life.—Ben Jonson.

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Both Phones.

Low Excursion Fares BETWEEN Tillamook County Beach Points.

Round trip tickets at reduced fares will be on sale daily, between beach points, until September 22nd. Limit 2 days.

SPECIAL SUNDAY FARES

On Sundays, until September 9th, special low fare tickets will be sold, limited to date of sale.

MOTOR CAR SERVICE

Do not forget that the motor car makes two round trips daily between Tillamook and Mohler, in addition to the regular steam service.

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