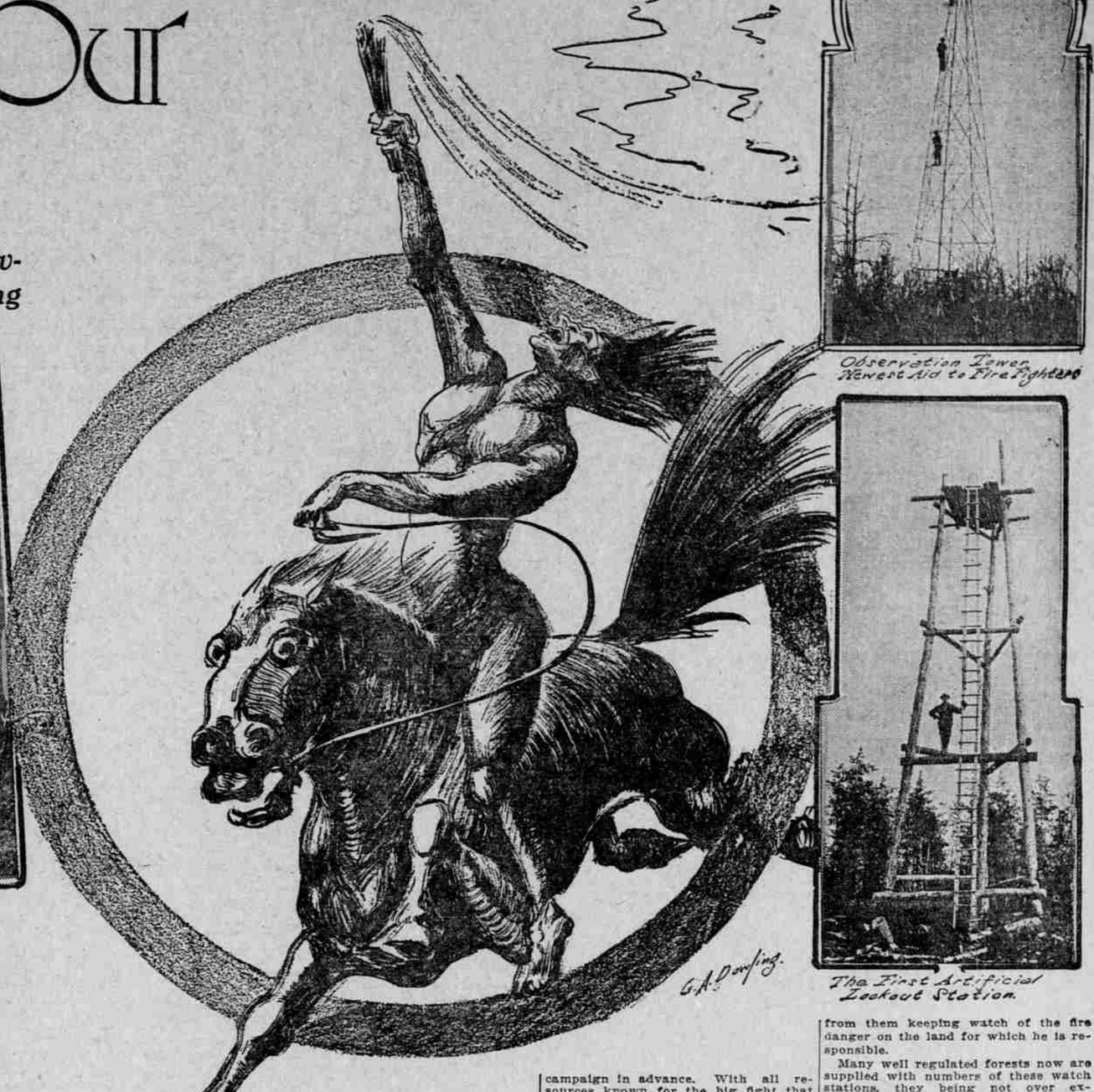
Has the Fire Demon Been Excluded From Our Forests?

This Season National Forests Have Largely Escaped Ravages of Fire—This Is Due to Organization for Fire Fighting in Timber Zones.

Going to a Fire.



Observation Tower, Newest Aid to Fire Fighters.

The First Artificial Lookout Station.

BY WILLIAM ATHERTON DU PUY.

THE season when the fire demon goes careening through Uncle Sam's forests primeval, defying the cunning and the valor of the man fighter, licking up values that amount into the hundred millions, and often taking great toll of life, has come and gone and no single fire of importance has occurred. To be sure, some fires have started that might have become calamitous. But a fire break turned them back, a newly established telephone line or lookout station gave the alarm in time for them to be successfully handled, and trained fighters with organizations of volunteers within call proved too strong and too clever for the force of flames.

From the middle of August to the middle of October is the period of danger in the forests. At that season of the year they are likely to become dry and then, too, the hunter and the camper are abroad in the land, and campfires and cigarette stumps start the trouble. Not since man first began to spread himself generally through the wooded country has there been a season that has been as free from forest fires as the present. To be sure the elements have helped by sending no long dry spells, but the development of fire control systems in the tree areas and the general education of the people as to prevention of fires is unquestionably the governing cause of the absence of fires.

For, be it known that Uncle Sam has now in his service an army of 2500 highly trained fire preventers and fire fighters who are on the job every day. These 2500 know exactly where to put their hands on 25,000 volunteers that may be called on to help at a moment's notice. Uncle Sam has cached tools for fire fighting in a thousand different places in the wilds and in as many places he has provided for emergency supplies against the time of need. Above all he made a record last year and built more roads, more fire breaks and more telephone lines in National forests than had been constructed in all the years that had passed. And all of these are preventers of fires.

Mapping a Fire Campaign.

But organization and training has been the all important thing. When the Government went into the forestry business, only a decade ago, it was without any information whatever as to the problem to be faced. There were no men in America who knew anything about forestry. The subject had to be mastered by the few and then the many had to be trained. An organization had to be developed and the system had to be laid down on the forests from Alaska to Florida and from New Hampshire to California, for the Government now owns land in all those extremes.

It is but now coming to pass that the system is becoming so developed as to be to any extent effective. It is but now that the war maps are completed and that the warriors have been able to apply the strategy that comes of much intelligent study. It is but now that the district forester knows as well how to carry on a campaign in his field against the fire god as the war college would know how to send an expedition into Mexico.

There is such a close similarity between the task of controlling a forest fire and in checking the advance of a hostile force that military methods can be studied and, in many cases, applied in a more or less modified form. Army methods of communication, signaling, supplying men on the fighting line, or moving bodies of men, worked out to a high degree of efficiency during a long series of years, are being applied in many instances to fire-fighting conditions in the National forests.

The first requisite in preparing a fire plan is an intimate knowledge of the forest. For the purpose of protective organization, the ranger district must be the unit of study. A study of a ranger district made in the field with the ranger, will generally show the classes of danger zones. It will show areas where there is great danger of fires starting, such as the vicinity of a logging operation, along a railroad, in a community of malcontents, near frequented camping grounds. It will show other areas where much damage will be done if fire gets in, such as a logging slash or a windfall.

Preventive Strategy.

After the inventory of dangers is complete the inventory of resources to combat them must be taken. Preventive measures against campers' fires, for instance, may consist in establishing a campers' register at a range station on the main traveled route to the camping grounds. It has been found in California that the names and plans of the campers are easily secured if only the ranger has something to give in exchange. Campers' maps have therefore been prepared showing roads, trails, meadows where food may be obtained, and other data of interest to the camper. Rules for care with fires and a short summary of the game and fire laws are printed on the margin of the map. The fact that his name, address, and destination are on record with the ranger is no slight restraint to prevent a camper from being careless with his fires.

Protective measures may consist of burned or cleared fire lines around a slash, a timber sale, or an experimental plot; or they may take the form of cleaning up a camping ground, or of some advance preparation for quick back-firing along a strategic ridge where inflammable material is scarce, or of provision for quicker discovery and swifter action when fire breaks out.

With the plan developed this far it is then necessary to marshal the protective forces in the most effective way possible. An ideal plan is outlined, one that will guarantee practically complete protection against fire loss. This entails, of course, a secondary workable plan at the beginning of each season, but with the ideal plan at hand it is easy to say that, in view of these fixed dangers, this telephone or that trail must be built at once, and this lookout station or that tool cache can wait another year, and so on.

The ranger district is divided into patrol divisions that form natural fire protective units. The topography and accessibility of the division, whether or not it can be covered from a lookout station, are factors that weigh with area in fixing division bountaries. Each banger is given his field to cover, has his watch towers, his instruments and, through his telephones, is brought in touch with his neighbors and his commanding officer, the district forester.

Methods of Communication.

The importance of communication between the lookouts, the patrolmen, and the district ranger cannot be too strongly emphasized. A patrolman out of communication who does not happen to see a fire just as soon as it starts loses most of his effectiveness. He then becomes simply a fire-fighter, whose only advantage over any other fire-fighter is his training. It is fire-preventers that are needed. On one division on a Pacific Coast forest the patrolman's headquarters camp is equipped with a telephone connected with the district ranger's headquarters and with a lookout station commanding the division. He has two fixed routes, one up the country and one down. At the end of each route he can report in by other phones. Each morning he reports both to the lookout and to the district ranger which route he is going to take. This leaves him out of communication only a very few hours each day, and both the lookout and the district ranger know where he is all the time.

Drawing up the division plans automatically locates the improvements essential to their proper working. Thus, if it is decided that such and such meadow is logically the patrol headquarters for a certain division, it follows that arrangements must be made to house the man, furnish him tools, feed or pasture his horses, and put him in communication with the nearest lookout and the district ranger.

The determination of the divisions, the assignment of patrol routes and patrol headquarters, the completion of the means of communication, and the selection and equipment of lookout stations may be said to comprise the control system. When this is complete, the next step is to perfect arrangements for fighting the fires that occur.

When Fire Breaks Out.

Of course, every patrolman becomes a fire-fighter immediately on the outbreak of any fire in his vicinity. The patrolman, together with any permanent fire crew, improvement crew, reconnaissance crew, or United States troops that may be stationed in the district, make up the "regular" force of fire-fighters. This district ranger should figure out in advance the number of regulars he must assemble at a given point in sufficiently quick time to check a fire in its incipiency. If every patrolman or other regular, immediately and without orders, quit his division and hurried to every fire he saw or heard of, the result might be a surplus of men on a fire already held under control by the division regulars and volunteers. On the outbreak of a fire, the regulars, in a division where it occurs proceed to it immediately, and all other division patrolmen who see it or hear of it proceed as rapidly as possible to the nearest point of communication with the district ranger, report to him and wait for orders. Disastrous results may follow the concentration of all regulars at one point in the district and the consequent abandonment of outlying divisions.

But just as the standing army could not cope unaided with a foreign invasion, so the force of regulars on any National forest cannot handle the fire situation without volunteer help from citizens living in or near it. The district ranger must study out this resource just as the War Department keeps tab on the strength and equipment of militia organizations throughout the country. Each settler or stockman who is a resident in the district during the fire season is spotted on the map accompanying the district fire plan. The number that can be assembled at a given point in a given time is worked out, and it should be also determined in advance just what fire-fighting equipment each one habitually keeps at his camp. If, for instance, a fire occurs near a certain cow camp where the district ranger knows the owner keeps on hand a supply of tools and food sufficient to maintain a crew of ten fire-fighters on the line for three days, and if he knows also that he can secure three pack horses at this cow camp, he can rush a fire crew into this locality, establish a base camp at the cowman's camp, and save possibly two days that might be necessary to transport tools and supplies into this country. It goes without saying that the cowman will be immediately reimbursed.

Calling For Help.

Before the fire season opens a definite understanding is reached between the supervisor or the district ranger and all sawmill operators or construction superintendents within the district as to just the circumstances under which their crews will be called upon to fight fire, how far they will go from their work, and the compensation the men will receive. Misunderstanding and friction have occurred because such points were not settled in advance. The terms of pay, transportation and subsistence should also be understood in advance by all possible volunteers.

Just as important as an advance inventory of all available volunteer fire fighters is an advance inventory of all possible means of transportation and bases of supplies. Lists should be made showing the location of all horses, pack outfits, and wagons in the district that it is possible to hire at need. The ranger should also list the country stores from which supplies and tools may be obtained, and satisfy himself that their stock is adequate. If it is not, he may be able to induce the proprietor to increase it.

This much for the mapping of a campaign in advance. With all resources known for the big fight that may at any time become necessary, it then devolves upon the ranger to maintain an eternal vigilance that the fire may be discovered while yet small and attacked before it has gained undue force.

The ranger in fire season has certain territory to cover regularly that he may assure himself that there are no fires starting. In his rides abroad he touches at points of greatest elevation and from them looks out over the country under his care to see that no column of smoke is giving warning of trouble ahead. In the beginning the crests of mountain ranges, isolated mountain peaks and such natural points of vantage, were made use of for this purpose. As the forest protection idea developed it was found that nature had not provided lookout stations at all points where they were needed. Even in the West there might be vast areas that were comparatively level and that could not be viewed in this way. In other places even the mountain tops were densely covered with timber and there was no outlook from them.

Building Lookout Towers.

It was then that the artificial watch-tower of the forest began to be developed. The first one was built in Arkansas, where the timber land of Uncle Sam's is so level and so well set in its growth of trees that the rider rarely sees a hundred yards in any direction. Here the rangers used to climb to the very tops of the tallest trees that could be found in an attempt to view the surrounding country.

Then the idea was originated of building a watch tower that would overlook the tops of the trees. A few of these, built of lumber, were put up. The windmill tower suggested its counterpart for this service and soon the Government was having steel towers made for this particular purpose. So it comes to pass that the forest ranger is building for himself these slim-legged steel watch towers in the mighty solitudes of the forests and from them keeping watch of the fire danger on the land for which he is responsible.

Many well regulated forests now are supplied with numbers of these watch stations, they being not over expensive. The rangers, starting from a central headquarters, ride each day to these stations and take observations. The stations are connected by telephone with headquarters and when a fire is seen a report may be immediately made and headquarters may immediately start the battle of its extermination.

Aside from the telephone each station is provided with a mounted map. With this map before him and his position indicated on it, the ranger can immediately determine the exact direction of the fire. He knows it lies in a certain line. He can see that it lies beyond certain landmarks and nearer than certain others. Still he is unable to determine its exact distance from him and therefore its exact location. He, however, telephones the exact angle of its direction to headquarters. By this time a second ranger in another tower has probably seen the smoke and this station sends in a similar observation. The man at headquarters merely continues the lines of direction that the two observers have reported and when these meet he has the location of the fire to a mathematical certainty. He is able to send his regulars and volunteers direct to it by the shortest possible route.

Since the great fires of 1910, leaving behind their roster of nearly a hundred lives lost in fighting forest fires and a financial loss to the Government and to private individuals amounting to many millions of dollars, Congress has been comparatively liberal in providing funds for this work. Last year an emergency fund of $1,000,000 was provided for fire fighting. But a small amount of this was, however, used and this year there are two special provisions for fire fighting, one of $200,000 and one of $150,000. With this money, with developing preventive arrangements, and with increasing knowledge of campaigning against this new enemy, Uncle Sam is beginning to feel himself somewhat prepared to fight the red demon in the woods.

Telephoning a Fire Alarm from a Mountain Solitude.

National Forest Headquarters.

Nature's Lookout Station.

AZTECS AS BALL PLAYERS

Montezuma Himself a Premier Pitcher—Cortez Outplayed.

NO, the first game of ball ever played on the American continent did not take place the first time the home team walloped the visiting "ginks" way back in the last century. That "game" seems to have been played several centuries ago.

It was an Aztec game and it was played somewhere out on the mesas of Mexico, long before the Spaniards arrived in their search for gold.

The sort of ball that the Aztecs played was very popular with the public, just as the big league draws attention today. They had no "regular league balls" at $1.25 each, but used one of rubber or elastic resin, and in another sort of contest used those made of gold.

The ancient Aztec game was called totoloque and was played in a court known as a tlachco, not so large as the present day diamond. The players were clothed only in a maxtlati or girdle around the loins.

There were pitchers, but no catchers, and the fielders were few. When pitched the ball was struck by an upward movement of the thigh or elbow, according to how it was aimed, whether high or low. After being struck the sphere, in order to count, has to pass through a hole in one of several stone discs hanging just in front of the wall of the court. The feat of bunting that ball with the thigh and sending it through one of those holes required a great deal of skill, as might be imagined. Agility was one of the prime requisites of an Aztec big leaguer. Any player touching the ball with the hand lost a point.

The emoluments of the game were quite as interesting from a pecuniary standpoint as they are today. Things of great value were usually given to the winners. And not only the prize. The victors were often presented with jewels, fine cotton stuffs, feather work or plumes of great value.

The game with the gold balls was a favorite of Montezuma. It is said that when Cortez staged his little historical skit known as the conquest of Mexico and took Montezuma prisoner the royal captive spent a great deal of his time in durance playing the game with gold balls. He often challenged the Spanish general to a contest.

These yellow "pills" were thrown at targets of the same precious metal. History shows that Montezuma had the makings of a pitcher who might have been in fast company had he delayed the date of his birth a few centuries. He could lean them against the home plate with unerring regularity. The Spaniards never could learn to play ball anyway, and Cortez was not one, two three with the first great American pitcher, so he lost frequently.

The Aztec emperor usually insisted upon having high stakes placed on the game and won precious stones, ingots of gold and other more or less desirable property, which he promptly distributed to his attendants with the wonted generosity of his emperorship. Cortez probably relieved those same attendants of their evidences of Montezuma's liberality as fast as the old fellow loaded them up, and thus kept up a clever triple monetary play, Montezuma to servants to Cortez.—New York Sun.

The First Futurist.

As to the language of the future a correspondent suggests that Alfred Jingle was the first futurist, as witness: "Lots of beer—hogsheads—rounds of beef—bullocks; mustard. * * *" "Flannel jackets, white trousers—anchovy sandwiches—devilled kidneys." Jingle contrived to make himself tolerably well understood, and certainly deserves a place in the Pantheon of Futurism.—London Chronicle.