

### LOGGING WITH ELEVATED CABLES.

To the Bridal Veil Lumbering Co., of Bridal Veil, Oregon, is due the credit for two innovations in handling timber in a rough mountainous country. The trailing of logs between the rails with a locomotive was first successfully demonstrated at its camp. This plan is now in general use all over the Pacific coast, wherever the grades of logging roads are too steep to admit of the handling of logs with cars.

The accompanying picture shows the adaptation of a method which is working successfully in handling timber out of deep canyons, where it is not practicable to reach it by means of railroads. Mr. Palmer, the president of the company, and who superintends the logging operations, decided to try the plan of logging the timber in a canyon about 150 feet deep and 500 feet wide by means of a wire cable secured to trees on either side of the gulch. The timber in this gulch had previously been abandoned on account of the excessive cost of logging.

The cable used is a six-strand, plow steel rope, 550 feet in length. The cable is suspended from trees on either side of the canyon, at an angle of about 45 degrees, on which is mounted an ordinary block. An engine in the canyon yards the logs to the trolley line. A bridle is passed around the center of the log, which is hoisted to the top of the canyon in about seven minutes by another engine. When the log is relieved the trip line is carried back by its own momentum. When the writer witnessed its operation a log scaling about 1,400 feet was being hauled. Logs scaling 3,000 feet have been successfully handled.

Logging timber by means of wire cables has been in general use in the south for several years, but the Bridal Veil Lumbering Co. was the first successfully demonstrating the feasibility of this plan in handling the big trees on the Pacific coast. There is little doubt but this plan will be generally adopted in logging gulches where it would be too expensive to build logging roads, due either to natural obstacles or the limited amount of timber to be handled.

The above is reprinted from the Columbia River and Oregon Timberman, Portland, Oregon.

### THE BAND RESAW FOR THE SAW MILL.

In discussing the utility of the band resaw for work behind the big saw, either circular or gang, a prominent maker of resaws gave it as his opinion that it is not so much its rapid cutting for a limited time as it is to have a machine that will stand a moderate feed, say 50 to 60 feet a minute, and keep steadily at it. A high rate of feed involves more saws in a given time, more wear and tear during the actual cutting, and shorter life to the saws and machine. At the same time, the resaw would have to wait on stock for a third of its time, taking an ordinary run of logs. While the big saw is getting a log sawed into cants for the

resaw, there is all the slabbing to be done, the bill and piece stuff to be worked out, and the cants, from two to eight pieces from each log, are to be sawed out of the way.

A resaw at a moderate feed will easily take care of this amount of stock, as it is not intended that the common run of boards shall be sawed on this machine; but rather the better grades and wide stock for special bills. That is another feature of band saw practice that prohibits the using of fast feed. Any one who has had the chance to watch a band mill cutting can not fail to notice that the sawyer will slow down his feed in heavy cuts, even on heavy mills carrying 12-inch blades. For the big mill and wide and heavy blades to have to slow down the feed on heavy cuts, would indicate that it would be good practice to follow on a narrow blade, 6 inches or less, of lighter gauge and with less machine power and equipment.

What would be the gain to run a feed of 100

effort and a useless wear on the machine.

Furthermore, the blades will be worn out faster in doing just the same amount of work, and the chances are the filer will have a hammering job on hand every time he fits up the saw, as the heavy work will keep the blade hard against the guide about half the time. This is all in reference to sawing stock in the mill right from the big saw, in many cases being flitch on both edges and ranging in width from 10 to 22 inches. A piece of flitch may be a foot wide on one end and 2 feet wide on the other, as this stock is to be taken ahead of edger. —H. E. Haner, in The Wood-Worker.

### NEW SHINGLE MILL.

On May 26th last the shingle mill of the Spicer Shingle Mill Company, of Vancouver, B.C., was completely destroyed by fire. Steps were taken immediately to rebuild, and early in August the new mill was put in operation.

The new mill is a two storey frame structure 35 feet wide and 110 feet in length, with a detached boiler house measuring 32x68. The boiler house is constructed with an iron roof and iron sides. The mill itself and all the buildings are whitewashed inside from a recipe furnished by the Board of Fire Underwriters, and outside they are coated with special fire-proof paint.

The power for driving the machinery is furnished by three 60 inch by 14 feet boilers and an 18x24 slide valve engine. The mill is equipped with several Johnson-Schaeke upright shingle machines manufactured in New Westminster. In addition there will be two cut-off machines for preparing the blocks and a special machine for shingle binders. The power is distributed from a four inch steel shaft which runs from one end of the mill to the other. The capacity of the mill is 350,000 shingles in 24 hours.

### EQUIPMENT FOR FOREST PROTECTION.

Mr. N. McCuaig, General Superintendent of the Forest Protection Service for district No. 1, in the Province of Quebec, makes the following suggestion in regard to fire ranging.

"A soldier on the battle-field without his rifle and ammunition is of very little account, and largely similarly situated is the best fire ranger, far away from help in the forest, face to face with his enemy—the fire—without any implements. Here are the articles that are articles that are usually employed in fighting fires, viz., spade, hoe and pail. There is little doubt if the Government offered a suitable reward to native mechanical ingenuity, a tool would be shortly forthcoming that would combine the spade and hoe in one implement and convenient for either purpose and not exceeding three and one-half pounds in weight. This, together with a rubber cloth pail, the whole at a trifle of expenditure, would constitute an equipment by which the ranger would be in a position at any moment to deal with a fire in its incipient or more advanced stage. The cost of such articles, including the leather belt, should not exceed three dollars per ranger."



CARRYING LOGS ACROSS A CANYON WITH A WIRE ROPE.

feet for three or four minutes and then let the saw run idle for the same length of time? Say a log 16 feet long would make eight cants to be resawed and it would take three minutes to saw up the log. This would take 128 feet for the resaw, just a little less than a minute and a half's work for the machine at a hard strain, and then wait for nearly twice as long a time to get some more stock. Now, on the other hand, suppose the logs should run to lower grades for two or three logs, your resaw is doing nothing and waiting to be put through its work on a uselessly high feed.

The fact that it can be done speaks well for the tool and is quite a consideration where the cants can be piled up on one side, to be run on extra time or at night but the ordinary, everyday use of a band resaw is to run at such a speed and rate of feed as will keep cleaned up behind the mill, and any rate of feed over and above what it takes to do this is simply wasted