PERSONALS

MAJOR ALAN MAIR JACKSON, who was recently appointed engineer of Brant County, Ont., was born in 1879, in New Zealand. He was educated at Dunedin High School and Otaga University, and served as an apprentice for six years in a foundry and machine shop, much of this time being spent in the erection of machinery. Major Jackson then became assistant engineer on drainage and sewerage in the city of Dunedin. Afterwards he served for six months as supernumerary engineer on a cargo tramp steamer, but left same upon its arrival at England. In 1905 he was sent to British Guiana to erect a gold dredge and to run a survey of a large gold dredging concession in the jungle. Subsequently he joined the Barima Gold Mining Co., in Demerara, on the border of Venezuela, where he erected all the company's machinery and built several miles of light railway. After four years in Demerara, Major Jackson returned to England in 1909, and early the following year came to Canada, where he spent a year in the mechanical department of the Canada Foundry Co., and then started a small engineering practice in Dunville, Ont. In 1912 he passed the O.L.S. examinations and became engineer for Haldimand County. The following year he moved to Brantford, Ont., and purchased the surveying and consulting practice of Howard Fairchild. In March, 1916, he enlisted as a captain in the 215th Battalion, but was soon promoted to the rank of major. He reverted to a captaincy upon his transfer to the 257th Railway Construction Battalion, with which unit he went to France. This battalion later became the 7th Battalion of Canadian Railway Troops. In France he was again promoted to the rank of major, and was in command of a company of the 7th Battalion for twenty-two months. In April, 1919, he returned to Brantford, and was appointed county engineer when construction work under the Ontario Highway Act was commenced by Brant County.

G. A. KENT, of Vancouver, gave an illustrated lecture recently before the Vancouver Board of Trade on a proposed extension of the Pacific Highway via Vancouver, Squamish and Lillooet, describing the scienic advantages of the route and the water power, timber and other natural resources that would be made available.

SIR DONALD MANN, who is visiting British Columbia, has given an interview to the press in which he states that he is through with railroad construction. This is Sir Donald's first trip to the Pacific coast over the Grand Trunk Pacific Railway. He is very enthusiastic about the prospects of the interior of British Columbia.

FRANK S. EASTON, hydro-electric engineer with the British Columbia Electric Railway Co., Vancouver, has resigned to enter the employ of the Mexican Light & Power Co., with headquarters in Mexico City. Mr. Easton will have charge of certain hydraulic and electrical work for the company, under the direction of G. R. G. Conway, managing-director, who was formerly chief engineer of the British Columbia Electric Railway Co.

TNT AS A BLASTING EXPLOSIVE

(Continued from page 172)

each lateral root and one under the top root. The stump was broken into two about equal sized pieces which were thrown 35 and 65 ft. respectively from their original position. A crater 12 ft. in diameter and 4 ft. deep was formed. This shot was evidently overloaded.

Test No. 4—Stump Blasting.—An oak stump 3 ft. in diameter rooted in clay and sandstone fragments was removed by the use of eight ¾-pound charges, six being placed under the lateral roots and two under the centre. The stump was broken into four pieces, two large and two small. The large pieces were overturned at the edge of the crater, one small piece remained loose in the ground and the other was thrown about 75 ft.

In connection with this test, it is important to call attention to the fact that the charges were loaded in wet holes for a period of 1½ hours.

Test No. 5—Stump Blasting.—An oak stump 18 inches in diameter, rooted in clay was removed by a single 2-pound charge of grade 3 TNT placed under the centre of the stump. The stump was broken into two pieces and overturned at the edge of the crater.

Test No. 6—Stump Blasting.—A solid oak stump 3 ft. in diameter, rooted in clay was removed by four 1¾-pound charges placed under the lateral roots. The stump was split into three large pieces which were lifted about 10 ft. in the air and fell back into the crater.

Test No. 7—Log Splitting.—A solid oak log 6 ft. long, and 39 ins. diameter, was split into two separate pieces of practically the same size by 4 ounces of grade 3 TNT, loaded in a 2-inch hole located midway between the ends and about 2 inches beyond the centre of the log.

Test No. 8—Log Splitting.—A solid oak log, 6 ft. long, 44 ins. diameter at one end and 40 inches at the other, was split into two separate pieces of practically the same size by 5 ounces of grade 3 TNT, loaded as in Test 7.

Test No. 9—Wet Boreholes.—As the ability to use an explosive under water in very wet boreholes is of great importance, the following test was carried out: A borehole 1½ inches in diameter and 42 inches in depth was drilled vertically in the floor of a coal mine, through coal, limestone and fireclay. The top of the borehole was 4 ins. under water. As the maximum effect was sought, the borehole was overloaded with 2 pounds of grade 3 TNT, the explosive being pressed in sufficiently hard to break up the cartridges. No tamping was used. After a wait of 15 minutes, the charge was fired. A crater 4 ft. in diameter and 42 ins. deep was formed and considerable other material about the crater was so loosened as to be easily removed by a pick.

Conclusions

1. Grade 3 TNT can be successfully used for adobe shots of boulders, for removing stumps and for splitting logs.
2. Grade 3 TNT has shown itself to give results the equal of 40% straight nitro-glycerin dynamite.
3. Grade 3 TNT detonates completely with a No. 8 electric detonator.
4. The evidences of black smoke is not to be taken as an incomplete detonation.
5. Grade 3 TNT detonates completely under water.
6. Grade 3 TNT detonates completely after moderate immersion in wet holes.