

## AXE AND SAW COMPETITIONS.

Our readers will doubt be interested in some particulars of the axe and saw competitions which are held annually in Tasmania, an Island belonging to the Australian federation. It will be necessary first to refer to the conditions which brought about the contests. The majority of the inhabitants are either settlers cutting out homes for themselves, or men earning a living by felling

these were sharpened to correct pitch prior to the day of the contest. The result was that a victory was gained for English axes by three points. Not so with the saws. Three American saw manufacturers and one English manufacturer entered, but the latter failed to come to the starting point and the award was given to the Atkins' saws, with the Simonds' saws second.

The above particulars and the accompanying



FIG. 1.—THE CHAMPIONSHIP MATCH—LYING BLOCKS.

timber for saw mills, by splitting timber into post rails or palings, or by felling the scrubs by contract for the more wealthy class of settlers who are making clearings in the forests. Many of the settlers have but little education. Their best loved weapon is the axe. From their desire to excel in their work arose the Australasian Axemen's Association, formed for the purpose of demonstrating the skill to which the settlers in the colonies have attained with the axe and saw. Since June, 1891, annual contests have been held. The ninth of these was held last year.

For the championship of the world in standing block chopping, i.e., logs placed just as though the trees were still growing, there were about a dozen contestants, and the blocks were of stringy bark, freshly cut, and trimmed to exactly 6 feet 4 inches girth, the work of cutting being accomplished by the winner in 4 minutes and 8¼ seconds.

A second event was the underhand championship chop, i.e., chopping through a log 6 feet 4 inches in girth whilst it was in a lying position such as is occupied by a tree when it has been felled. Another interesting event was the championship sawing match, the men to cut through a similar sized log, 6 feet 4 inches. This was accomplished by the winner in the marvellously quick time of 1 minute 49 seconds. In the double handed sawing match, one man on each end of saw, a log 2 inches in diameter was cut through in 34½ seconds.

The most interesting features of the competition were the contests in axes and saws by international teams. These contests were inaugurated for the purpose of giving the manufacturers of Great Britain an opportunity to prove to the world that they could produce axes and saws equal to the tools made by the Americans, the latter having practically monopolized the trade of Australia in late years. The winning manufacturer in each case was to receive a gold medal. Each manufacturer who entered sent in his lot of axes or saws, and

illustrations are taken from the Chicago Hardwood Record.

### MERITS OF DIFFERENT SAWS.

The following opinions regarding the merits of different saws came to hand after our January number had gone to press:

NANAIMO, B.C., Dec. 24th.—My views on the relative merits of the circular, band and gang saws are as follows: The circular will get out more timber into the several kinds that the log is suited for, and with less care, but more waste, than the band. The band takes

thickness, making the lumber more even in thickness than the band or circular saws. But I prefer the band saw for cutting 4" and up in thickness or dimension timber of any size, owing to the small waste in saw-dust. The twin circulars I consider the best for slabbing small logs, but for no other sawing, as the waste in saw-dust is too great. The band saws cannot be beaten for getting the most good lumber out of a log.

J. R. BOOTH.

RAT PORTAGE, Jan. 1st.—There is, as you know, much difference of opinion concerning saw mill machinery, and especially with regard to the different kinds of saws which should be used. I have arrived at the conclusion, after twenty years experience, that circular saws are a thing of the past, especially where logs are worth seven dollars per thousand or upwards; the waste in sawdust is altogether too great to allow of their being used successfully in competition with band saws. The band saw under all circumstances reduces the waste to about one-third, and where two-way cutting band saws are used the capacity of the band saw is greater than that of the circular, with very little extra expense for the running of it. Gang saws can be used successfully where mills of large capacity are required; for example, where a capacity of one hundred thousand feet of lumber per day or upwards is required, a gang may be used in connection with one or two band saws, but where smaller mills answer the requirements, I should say a band saw or a band saw and a band re-saw should be used. With a two-way cutting band mill and band re-saw worked in connection with it, nearly one hundred thousand feet of lumber per day can be produced with the greatest economy both as to labor and saving of the log, owing to the thinness of the plate of the band saw.

D. C. CAMERON.

Manager Rat Portage Lumber Co.

### GRAPHITE AS A LUBRICANT.

GRAPHITE is a good lubricant when it can be placed and kept where it is needed. A shaft running in a graphite bushing is perfectly lubricated, and needs no oil or grease. Such a shaft will also run with very little friction. But, in ordinary bearings, the problem with graphite is to place it where the friction is. When oil is used, it will insinuate itself into a pretty small place between the bearing surfaces, and will flow readily through long and

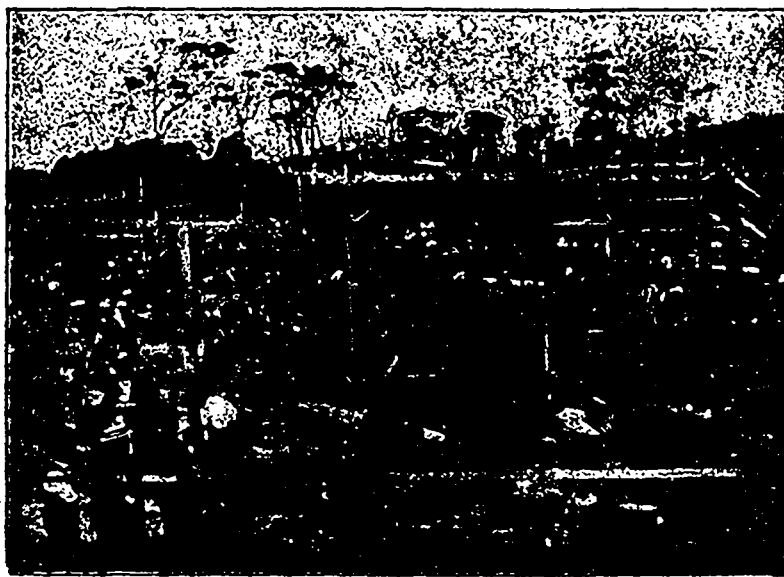


FIG. 2.—THE SAWING MATCH IN FULL SWING.

less power and less kerf than the circular and has the same advantage that the circular has for picking lumber of different sizes and qualities out of the same log. It requires more care, but when fliers become impressed with the fact that the mill will work even if they quit, the band will be the mill of the future. For quality and quantity without regard to the suitability of the log for the lumber cut, the gang takes the lead.

A. HASLAM.

OTTAWA, ONT., Jan. 5th.—My experience goes to show that the gang or Wickes gate is the most desirable for the cutting of all kinds of lumber say 3" and under in

crooked passages. With graphite, on the other hand, there is a pretty big problem as to how the stuff is to be gotten into a bearing. A powdered material cannot be made to flow like oil, no matter how it is tried, and there seems to be no means of using graphite except by mixing it with a liquid that shall act as a vehicle for the powdered material. By doing this the object of using graphite is largely lost sight of, for oil has to be used in the bearings as before. Before graphite will displace lubricating oil, there will have to be devised some means of blowing the substance into the bearings, and of keeping it there when once in the right place. When that is done, all hail to graphite.