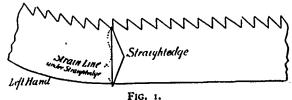
AS WE FIND THINGS. By A. J. BURTON.

I wish to call attention to the center strain line in band saws. If any of the filer readers of The Wood-Worker are using this strain line successfully as regards quality and quantity of lumber, at the same time prolonging the life of their saws, I would be pleased to see their experience published in these columns, and am confident a great many others would too. Such discussions must necessarily be beneficial. Life is too short for one man to learn it all by experience.

In taking charge of the saws in the mill where I am at present engaged I found all the saws had been put up with the strain lines as follows: They were solid commencing about one inch from the gullet of teeth and extending over a space of about two inches toward the center, then a space of three inches in the center that was "fast" or



stiff, then two inches that had been rolled or opened to the back edge. When the saw was held up with the left hand and a straight edge applied across it three feet from the lelt hand, it would show up like Fig. 1. The saws had from 1 to 17 cracks and some of them two and three brazes. They were 10 inches wide when new, but had worn down to 93/4 inches. Under any kind of reasonable conditions the saws ought not to have had a crack in them.

The only way I can put up a saw that will not crack under favorable conditions, is to put the tension in on a perfect circle from one edge to the other, as shown in Fig. 2. The drop under straight-edge shows the tension. I use a gauge and make every spot in the saw true to gauge, leveling the saw perfectly flat, so that the straight-edge shows no light under it when laid across the saw when it lies flat on the leveling table. The filing room had been provided with

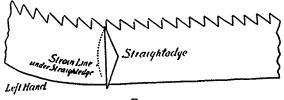
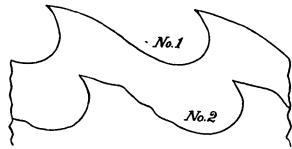


FIG. 2.

a Baldwin, Tuthill & Bolton No. 5 stretcher, but the top roll had been disconnected and used only as an idle top roll. The rotary shears, also the parts that move the roll back and forth, had been taken off, making the \$250 machine practically no better than one which could be bought for \$150. I replaced all parts and find the machine works perfectly.

The grinder is one of the most improved Covel make, but the former filer did not consider it accurate enough for him and only used it to gum out with, doing all the filing by hand, which, of course, took lots of time, labor and files. He had post brackets and back feed, but had the grinder setting in the center of the saw as it lay in the post brackets. This allowed the saw to gag over the guide rest in the operation of grinding, which, of course, caused the grinder to do bad work. Besides this the teeth pointed from the

light instead of toward it. I turned it around and set the grinder toward one end of the saw, so the saw would rest on one post bracket and on the guide rest only. In this way the saw moves around perfectly in line with its back edge. I also found the small gear on grinder was on the wrong side of machine, which caused the cam shaft and cam to run backwards; and, worst of all, he had a left-hand cam-holder and cam on a right-hand machine. I don't wonder at him filing by hand, and only wonder that he was able to gum his saws. I then undertook to make a right-hand cam-holder out of a left-hand one by plugging up the shaft-hole with hot iron and drilling another hole for the shaft 3/4 inch higher, to allow the holder to drop down at the right place, so the wheel would come down in the gullet. Then the cams would not fit, so I filled the hollow side with babbitt, turned them upside down and tapped in new holes for the screws. When I put it on the machine, took out all lost motion, and rebabbitted the machine it started off like an old clock and ground the teeth to a good keen edge without missing a tooth or burn-



ing one. No. 1 is the shape of tooth the machine now makes. No. 2 is the shape of teeth in the saws when I came here.—The Wood-Worker.

BRITISH COLUMBIA LETTER.

(Cerrespondence of the CANADA LUMBERMAN)

It is possible to write very encouragingly of the lumbering industry of this province. As the year draws towards a close, manufacturers naturally take a retrospective glance. Until the business of the year has been balanced up, the actual profits and losses will not be known, but it is safe to predict that the year 1899 will pass into history as one of the most successful that the lumbermen of the west have known for some years. It will also mark the putting into operation, after years of idleness, of one or two large mills which will represent a considerable proportion of the lumber cut of the province. To say that the mills are busy does not fully explain the situation. The fact is that orders are being refused owing to inability to supply the lumber at the time the customer requires it.

Just to give an idea of the markets to which British Columbia lumber is shipped, I send a list of the vessels which had cleared up to October 31st of this year:

From Chemainus-John Smith, for Cape Town, South Africa, 626,856 feet; J. B. Brown, for Sydney, Aus., 1,142,728 feet; Coloma, for Tientsin, China, 700,497 feet; W. F. Witzemann, for Tientsin, 364,068 feet; E. K. Wood, for Tientsin, 660,292 feet; Hawaiian Isles, for Melbourne, Aus., 1,914,665 feet; Sea King, for Sydney, Aus., 1,130,378 feet; Orion, for Calcutta, British India, 1,616,318 feet; Undaunted, for Cape Town, 1,263,853 feet; Star of France, for Melbourne, 1,176,922 feet; British General, for Australia, 1,457,539 feet; Hercules, for Queensboro, 907,546 feet; Bastien Bach, for Tientsin, 552,566 feet; King Cyrus, for Newchang, China, 878,728 feet; Guy C. Goss, for Taku, 1,134,648 feet; Nanaimo, for Taku, 419,152 feet; Dainyvostok, for Port Arthur, China, 1,452,876 feet; Tyr, for Newchang, 1,618,102 feet; E. K. Wood, for Shanghai, 634,372 feet; Echo, for Valparaiso, South America, 877,993 feet; Elwell, for Melbourne, 1,107,433 feet. From Moodyville -Louisiana, for Sydney, 1,128,111 feet; Ragnar, for Newchang, 1,194,421 feet; Rodenbek, for Callao, South America, 1,309,231; 'Alteai, for Callao, 1,012,013 feet; City of Madras, for Australia, 1,321,177 feet;

Dundee, for Calcutta, 1,791,985 feet; Florence, for Sydney, 1,237,959 feet. From Burrard Inlet-Compear, for Japan, 416,928 feet; Adderle,, for Sydney, 1,002,738 feet; Elm Branch, for Tientsin, 2,841,324 feet; Wachusett, for Melbourne, 1,111,240 feet; K. F. Troop, for Philadelphia; Wm. H. Macy, for South Africa; Ivy, for Shanghai; Tyr, for Newchang; Marion Chilcott, for From New Westminster-J. M. Wetherwacks, for Nagasiki, Japan, 519,243 feet; Brunell, for Callao, 1,194,958 feet. From Vancouver-Clan Galbraith, for Algoa Bay, South Africa, 1,641,759 feet. From Cowichan-Fred J. Wood, for Santa Rosalio, South America, 180,400 feet. From Victoria -- Alex. Mc-Neil, for Port Pirie, Aus., 605,579 feet. From Ganges Harbor-Eric, for Tientsin, with piles.

The recent shipment of timber from the Hastings mill to Philadelphia, to be used in the construction of United States war vessels, will, it is believed, be followed by others. It is acknowledged that nowhere in the world can there be found as suitable timber for ship-building purposes as on the Pacific coast.

The Royal City Planing Mills recently shipped three car loads of lumber to England, via Montreal, to be used in the British navy.

Trail is to have a new saw mill. It will be erected by Mr. Thos. McKelvey, who has purchased timber limits across the river, back of what is known as East Trail.

The Kootenay Lumber Company, of Comaplix, B.C., purpose spending several thousand dollars in increasing the capacity of their mill and in putting in drying ap-

A new saw mill is being erected at Kamloops. Mc-Alpine & Sucksmith are starting a saw mill at Grand Forks, and A. X. Fleming a sash and door factory at

The Hastings Shingle Manufacturing Company, of Vancouver, report a brisk demand for shingles. Their four mills have a daily capacity of 600,000 shingles. I understand that the company are desirous of engaging some good shingle sawyers and packers.

The growth of the village of Columbia has induced Mr. G. O. Buchanan, the well known lumber operator of Kaslo, to start a branch there. I am told that a company will be formed, to be known as the Columbia River Lumber Company. The timber in the vicinity is mostly bull pine, though there is a large body of white pine up the north fork of the Kettle river.

CANADIAN FORESTRY EXHIBIT.

THE work of selecting material for an exhibit of Canadian forest products at the Paris Exposition has been completed, and we are assured by those in charge that a creditable collection is the result. The exhibit, as our readers know, has been prepared by Mr. J. M. Macoun, assistant naturalist of the Geological Survey of Canada, which is a sufficient guarantee as to its completeness. Several of the provincial governments have assisted in procuring the necessary samples of merchantable timber, while exporters and manufacturers have also given valuable aid. In addition to the exhibit made by the different provinces the following have made entry:

John Heard & Co., St. Thomas -oak planks. The Sutherland, Innes Co., Chatham—cooperage stock,

staves, hoops, etc.
Gilmour & Co., Canoe Lake—one white pine deal. The Menier Co., Anticosti-seven sections of trees and

W. H. Marcoun, Parry Sound-patent clothboards,

basswood and elm veneer. Kerr & Harcourt, Parry Sound—spools, bobbins and

John H. Grout, Grimsby-fruit baskets, boxes and

The British American Timber Co., Kearney-birch

deals.
Sir Henri Joly, Quebec-three sections of polished Adam Beck, London-cigar bexes and stock and oak

flooring.
The Columbia Handle & Lumber Co., St. Thomas-

hockey sticks, golf sticks, etc. North American Bent Chair Co., Owen Sound-chair

J. S. Findlay, Owen Sound-mangle rollers and beech flooring.

John Harrison, Owen Sound-butchers' skewers and

Carl Zeidler, Toronto-various kinds of Canadian woods.