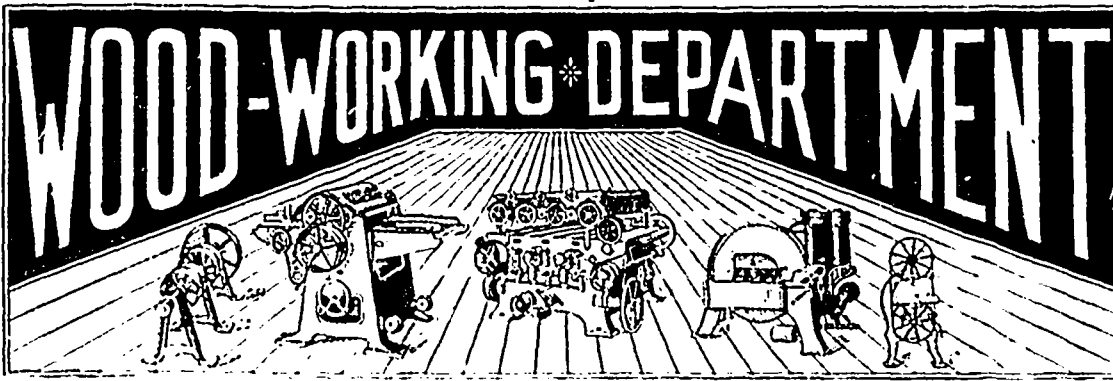
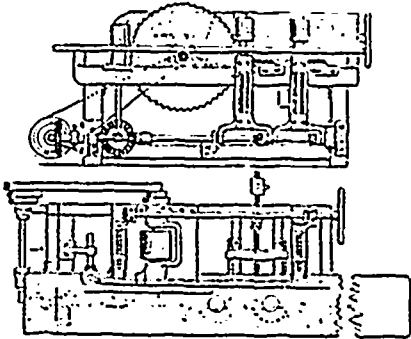




SLAB-SAWING MACHINE.

A PATENT has been granted in the United States to Austin W. Goodell, of Philadelphia, Pa., for a slab-sawing machine as shown herewith, for which the following points are claimed :

A slab-sawing machine, a saw attached thereto, a movable fence thereon, means to move the fence simultaneously at each end from a single operative point, upright feed-rolls therefor seated upon a rectangular shaft, the rolls being in longitudinal and removable sections, and carried in a yoke upon a shaft normally upright but having means for side adjustment. A slab-sawing ma-



SLAB-SAWING MACHINE.

chine with a fence therefor, having attached thereto a delivering mechanism suited to shifting positions of the fence, feed-rolls therefor mounted upon shafts normally perpendicular, but pivotally supported from a feed-shaft arranged for outward and inward moving, means for raising or lowering the end of the feed-shaft nearest the feed end of the machine, and means for connecting the feed shaft to the cross feed-shaft for such adjustment and the maintenance of their driving-contact under such adjustment.

CARE OF WOOD-WORKING SAWS.

THERE is a great variety of opinions in regard to the care of the small saws generally used in the different departments of wood-working. Some of these opinions are right, and some must just as certainly be wrong. I will admit at the start that there are more than one of several ways which may be right, owing to differing conditions, but there are several ways which I have seen that are wrong under all conditions.

These saws when new were well shaped so far as the teeth were concerned, and cut easily and smoothly, but before six months they were in a shape to surprise one used to well-fitted saws. The hook was almost entirely gone, so that they did a good job of scraping, but were a failure as far as cutting was concerned. They had meanwhile never been trued up or ground, only hand filed, as the foreman did not believe in anything else and thought he knew because of his age and experience. He believed in filing the rip or split-

ting saws with a little bevel, so the outside corner was about like a cut-off saw, the points generally about a thirty-second longer one side than the other. This is the saw to cut, according to his rule, but I noticed the saws cut hard, and were inclined to dodge the hard places and burn somewhat. Here was a case of the won't-see kind. I don't think that foreman will live long enough to see that his way is wrong.

My idea is, have the saw well trued up so that every tooth does its share. Give hook enough to insure an easy cutting angle, different woods demanding slight variations, then make the edge of the tooth square as possible, with good corners both sides. Given plenty of power and fair speed and you have something you can get the work from. To keep such a tooth after you get it, grind it instead of filing by hand. The grinders of to-day are so simple and have such variety of adjustments, that they are far superior to hand filing.

If some men would watch carefully the action of a saw while at work, with a view to finding out its defects, they would learn something to their advantage. Band saws for shop work are often ill-used and condemned before they have given half service. A great many men can run, file and braze band saws, but the number thins down considerably when it comes to doing a nice job. The saw should be free from kinks before brazing. Great care should be taken to make the splice an even taper, to have the saw the same thickness at the braze without filing much afterwards. Be sure it is clamped perfectly straight before solder is applied. After brazing, smooth up and file as squarely as possible, and if necessary, smooth up by running an oil stone alongside of teeth for smooth work.

Good judgment is necessary in straining the saw. Many break from too much strain; some from too little. Some people think anything will do for a saw guide. I would condemn all old chunks of wood shoved in back of the saw or at the side. Get a good roller guide of modern make, of which there are several good ones. If your saw is not well fitted the guide will not control it altogether, although it will to a certain extent. The best way is to go slow and watch the work, and when you get it in good shape, keep to that until you find something better.

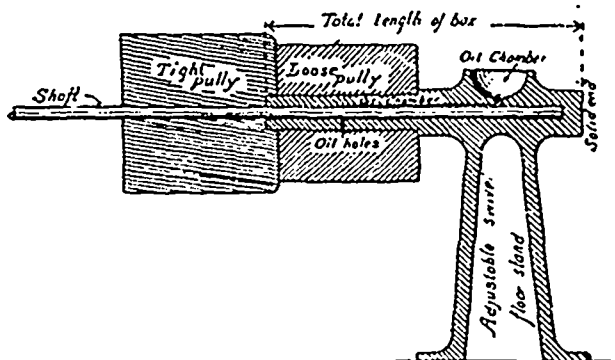
There is nothing I like better than to go into shops where there are machines of old style and notice their inconvenience and sometimes their convenience. Once in a while I see features that could be adopted with beneficial results, and am surprised that others are tolerated. I recall one feature about a buzz planer (an old-style machine) which struck me as rather a good thing, but possibly too expensive. It consisted of a lever to set the gage for any bevel or square, so

you could hold the gauge in position with one hand, tighten one hand screw with the other, and set accurately. I have often wondered why there is no improvement in this line. With most machines we have to loosen two hand screws, jar the gauge down about where we want it, and hang on tightly with one hand while we tighten one screw with the other. Then it is apt to slip before you get them both tight, and you must try again. To set up square you are apt to get it back too far, and have to get a square at last to set it. This old machine would set right up square every time, and stay there. The adjustments were also good for keeping the boxes in line with bed better than many of the machines of the present day. Uncle Dean, in Wood-Worker.

AN IMPROVED LOOSE PULLEY.

Mr. E. B. Knight, of Chilliwack, B. C., writes as follows to the Wood-Worker on the question of a good loose pulley :

"We run an ordinary planer and matcher and a fast-feed flooring machine in connection with our saw mill. The loose pulley on the planer has been in use for fifteen years, and on flooring machine since 1890, so that their durability is unquestioned. The tight and loose (jump) pulleys on both machines are 14 inches diameter, using 8-inch double leather belts. The loose pulleys were built to order in this way : The outer bearing or floor stand of countershaft is made a solid box, 16 inches in length, and extends right up to tight pulley. Nine inches of this solid box next tight pulley is turned on outside, and loose



AN IMPROVED LOOSE PULLEY.

pulley runs on outside of this box, instead of on shaft as usual. In centre of where loose pulley runs, four holes are drilled through box and a small channel cut in babbit from oil chamber to these holes. By this means, when you oil end bearing of a countershaft (which you can do any time) you oil loose pulley at the same time. You will notice that the loose pulley is oiled from the inside, as it should be, in place of through a hole in the loose pulley. I enclose rough hand sketch to show the idea more clearly. If any of your readers want a certain cure for the ordinary loose pulley nuisance, this is the only thing with which I am acquainted, and I speak from fifteen years' experience."

Grate-bars should be allowed room to expand when they are put into a furnace. If they are wedged tightly into place when cold they will expand when heated and the furnace be damaged or the bars will be warped out of shape. Do not allow them too much room endwise, or they may fall off from the bearer at the front end. This may seem to be an unnecessary warning, but fires have gone into the ashpits more than once on this account, hence it is well to be on the safe side.