The Pembroke Southern Ry, between Pembroke & Golden Lake, Ont., has been operated since Jan. 1 with equipment loaned by the Ottawa, Arnprior & Parry Sound Ry. It is said the P. S. Co. is having equipment built.

Early in Feb. an order was given for the construction of 500 box cars to be constructed at once at the G.T.R. Co.'s shops at Montreal. This will mean that there will have to be considerable additions to the already large staff of car builders in the employ of the Co. The new cars will have a capacity of 60,000 lbs. Work is progressing satisfactorily in the Montreal shops on the passenger & freight locomotives, of which 25 are under order.

The Great Falls & Canada Ry., & the Alberta Ry. & Coal Co. have added some sleeping cars to the equipment of their route from Great Falls, Mont., to Lethbridge, Alta. The cars, which are narrow gauge, were built some years ago by the Pullman Co., & have recently been remodelled at the Denver & Rio Grande shops at Denver, Col. The whole interior is finished in ash, with green plush upholstering. There are 10 sections in each car, with lower berths only, making them much more comfortable than the regular standard sleepers.

## Grand Trunk Shop Kinks.

A very ingenious way to machine the flanges of a dome saddle—that is, the surface bearing on the boiler shell—& also the caulking edge of the vertical flange, has been devised & is in successful operation at the G.T.R. shops, Montreal. In fact, two separate & widely differing mechanical ideas are involved in reaching the results noted above. How this is done is clearly shown in the accompanying illustrations.

Fig. 1 represents the saddle on a planer, while being treated for the boiler fit, by means of a tool bar having a radial movement transversely of the planer. This radial action is obtained by means of an auxiliary crossrail which is bolted to the housings, & which has at its center a swiveling clamp whose function is to hold the tool bar. It is plain that the distance from the center A of this clamp to the end of the cutting tool determines the radius of the curve cut by the tool, & its use in other directions is apparent. The lower end of the bar passes free, but without shake, through a block that also swivels, but takes the place of the tool clamp on the regular saddle of the machine, & furnishes support to the tool bar. The tool is fed over the concave

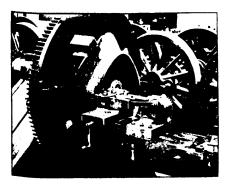


FIG. 2. FACING EDGES OF FLANGE.

surface of the job by the feed screw through the lower crossrail.

The same dome saddle is shown on the face plate of a lathe, in figs. 2 & 3, during the operation of facing up the caulking edge of a flange, which is seen to be concentric with the face trued up in fig. 1. To face such a surface it is evident that the cutting tool must have a reciprocating movement equal to the distance from the highest to the lowest point on the surface to be trued. Fig. 2 shows the

operating side of the lathe & the crank mechanism to obtain the back & forth tool movement, & fig. 3 shows the rear side with the system of gearing to drive the crank & tool. These shop kinks, which give proof of a resourceful acquaintance with mechanical principles, were evolved & put into practice by J. Millington, Foreman of the Montreal machine shop. The G.T.R. has long been noted for clever schemes in labor saving devices & special tools for handling work, & the latest efforts in that line do not appear to be materially behind the former ones in reaching results.—Locomotive Engineering.

## Canadian Freight Association.

At a general meeting of the Association at Montreal, Jan. 12, the following were elected active members:—G. W. Robins, Lotbinier & Megantic Ry.; W. R. Russell, Quebec, Montmorency & Charlevoix Ry.; G. H. Pugh, Atlantic & Lake Superior Ry.; E. G. Evans, Central Ry. of N.B.; J. Brignell, Central Ry. of N.S.; W. K. Sanderson, Maine Central Ry. (vice M. Prescott, deceased).

Chairman Earls reported that the new classification no. 11, already adopted, had been

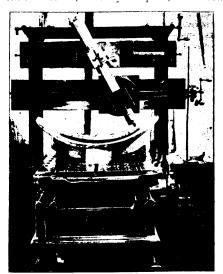


FIG. 1. PLANING DOME SADDLE.

submitted to the Governor-in-Council, but had not yet been approved. He also reported a number of additions & amendments to the new book, these amendments to be incorporated in the new classification if possible; if not, to be promulgated as a supplement by the Committee.

Reports were made by the Freight Inspection, Executive & Car Service committees.

The Sec.-Treas, reported having obtained from all the principal roads in the Association copies of their freight transportation forms, & found that they were not all uniform. The matter was referred to a special committee consisting of Messrs. Woollatt (convener), Bulling, Chittenden, Hardwell, Backus, Mcmillan, Collins & Cunningham, to report at next meeting.

The Sec.-Treas, stated he had written the

The Sec. Treas. stated he had written the roads which had been participating in the expenses of freight weighing, inspection, car service, etc., also to some other roads which had not yet participated, with a view to a more equitable assessment, & that with few exceptions they had concurred in the change. After discussion most of the objections were withdrawn, & the new plan was generally adopted. The opinion, however, was expressed that all roads in the Association, parties to the Canadian Joint Freight Classification, should contribute something to the general expenses, & the Sec.-Treas. was instructed to

communicate with parties concerned with a view to bring that about if possible.

The President having explained that it was frequently impossible to get a fair majority of members of standing committees together when meetings were called, business being delayed thereby, G. H. Watson was appointed to the Freight Inspection Committee, vice M. Burton. W. Woollatt was appointed

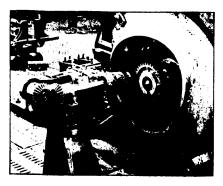


FIG. 3. HOW THE TOOL IS DRIVEN.

to the Car Service Committee, vice E. H. Edwards.

A meeting of the Freight Committee was held at Toronto Jan. 26, when special rates & arrangements 1517 to 1535 were agreed to.

## Miscellaneous Freight Matters.

The C.P.R. recently carried 10,000 lbs. of chickens from Montreal to Vancouver, en route for the Yukon.

About 1,000,000 bushels of grain were handled at the C.P.R. elevator at Owen Sound, Ont., last season.

C.P.R. Elevator B. at Fort William, Ont., has been set aside for the storage of damp grain after it is dried.

Lumber trade is very brisk on the Booth lines, about 1,000 logs being shipped daily from Madawaska to Ottawa.

Large quantities of smelts are being shipped over the Canada Eastern Ry. from Loggieville, N.B., en route to New York.

President Muir, of the Winnipeg Grain Exchange, calculates that in the near future the Canadian North-West will export a hundred million bushels of wheat annually.

The White Pass & Yukon Ry. Co. has temporarily suspended its freight classification & made a flat rate of \$2.75 per 100 lbs. for all classes of goods from Skagway to the summit of White Pass.

C.P.R. returns of cattle shipments show that 40,000 head were shipped in 1898 from the North-West to Eastern Canada, 2,000 less than in 1897. Forty thousand stockers were forwarded, one-half to the U.S.

The str. Bruce is doing a good freight traffic between North Sydney, N.S., & Port aux Basques, Nfld., taking from 8 to 10 carloads each trip. It is said R. G. Reid will put on a special freight boat in the spring.

The G.T.R. Is said to have just closed an extensive contract in connection with the Lehigh Valley to carry Swift & Armour's provisions from Chicago to the seaboard. The contract is said to be for about 7,000 carloads, which is equal to about 182,000,000 lbs.

The rates in the C.P.R. special local tariff on general merchandize between Pembroke, Ont., & eastern division stations as designated in the tariff of May 9, '98, will not apply on shipments, ex connecting lines. Unless authorized to the contrary full mileage tariff rates will govern.

A Montreal dispatch of Feb. 20 says: "Private advices received here to-night from Lon-