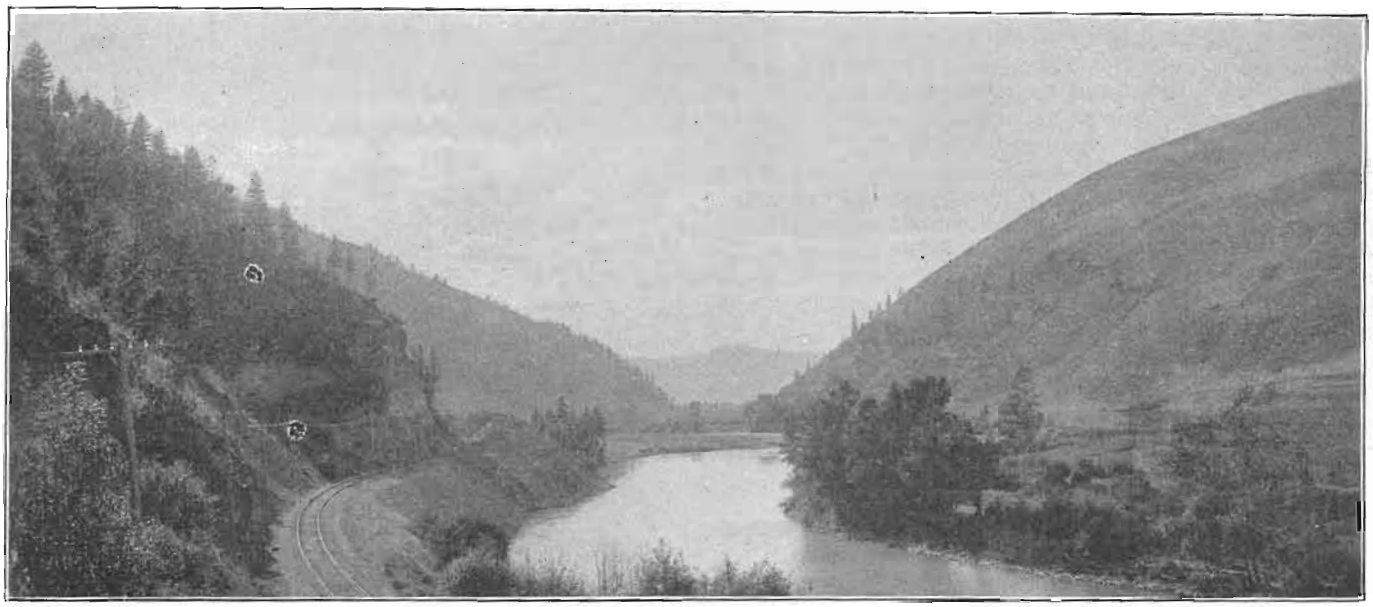

The Missoula Gorge. On the St. Paul Near Missoula, Montana

Train Handling with Electric Locomotives*

Passenger Service Requirements and Passenger Train Operation —Helpers Are Not Necessary

By W. S. H. Hamilton
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PASSENGER TRAINS are run on a schedule which allows a certain running time over a division. This running time is based mainly on the average speed the motive power can make without too great an effort, the nature of the track and the country through which it runs. These last two items are especially important in mountain railroading. It is usually possible in reasonably good weather to make faster time than that called for by the running time without exceeding the limits of safety or comfort to passengers and this allows more or less time to be made up.

The requirements then for the motive power for passenger service are ability to handle certain train weights over a given profile at the speeds required by the schedule efficiently and smoothly, maintaining quite closely the schedule speeds at all times with the trains on time and with them late, to handle them on all parts of the run at the maximum speed permitted by the safety and comfort of the passengers in order that the maximum amount of time may be made up. A large amount of time may be made up by taking advantage of the profile and holding the maximum permissible speed at all times and skillful engineers can make up considerably more time with the same motive power than unskilled or inexperienced ones, simply by taking advantage of conditions.

Electric locomotives for such service are shown in Figs. 1 and 2. The principal dimensions are given in Table I. There are five of the General Electric locomotives which at present are in service on the coast division and ten of the Westinghouse type handling the passenger trains on the Missoula and Rocky Mountain divisions. The original 42 General Electric locomotives are now used to haul freight on all three electrified divisions.

*This is the first of a series of three articles on this subject. The second will deal with freight train operation and the third with the use of helpers in freight service. The author acted as an instructor to engineers on the locomotives used on the C. M. & St. P. from December, 1915, to August, 1917, and from December, 1919, to April, 1920.

Locomotive Characteristics

The speed tractive effort curves on resistance when motoring for the gearless locomotive are shown on Figs. 4 and 5.

TABLE I—PRINCIPAL DIMENSIONS OF PASSENGER LOCOMOTIVES

	General Electric	Westinghouse
Total weight	521,200 lb.	550,000 lb.
Total weight on drivers	457,680 lb.	336,000 lb.
Non-spring-borne weight per driving axle	9,500 lb.	7,800 lb.
Length over-all	76 ft. 0 in.	88 ft. 7 in.
Height over cabs	14 ft. 11⅝ in.	14 ft. 6 in.
Height over pantograph, locked down	16 ft. 8 in.	16 ft. 7⅞ in.
Total wheelbase	67 ft. 0 in.	79 ft. 10 in.
Maximum rigid wheelbase	13 ft. 9 in.	16 ft. 9 in.
Diameter of driving wheels	44 in.	68 in.
Diameter of idle wheels	36 in.	36 in.
Heater capacity	4,000 lb. steam per hr.	4,000 lb.
Water capacity	30,000 lb.	25,500 lb.
Oil capacity	6,000 lb.	750 gal.
Compressor capacity	150 cu. ft. per min.	150 cu. ft. per min.
Number of motors	12	12
Type of motor	(Bi-polar) GE-100	(Twin) 4-pole

	General Electric		
Locomotive rating:	Tapped field	Full field	Westinghouse
Total horsepower, one-hour motor rating	3,480	3,380	4,200
Total tractive effort one-hour motor rating	36,000	46,000	66,000
Speed, miles per hour	36.2	27.5	23.8
Total horsepower continuous	3,200	3,200	3,360

It will be noted that there are a total of eight running speeds provided; four full field and four tapped field. The four full field speeds can be used anywhere including mountain grades (1.5 per cent or over), but the four tapped field speeds only on lighter grades or with light trains on mountain grades. The highest full field speed is sufficient to take the maximum train up a grade at a speed slightly

faster than the schedule speed and there is another running speed slightly lower which is about right for just making running time. The maximum speed up grade selected for electric locomotives is usually between 25 and 30 m.p.h. on mountain grades and is in excess of that which is made by steam engines when double heading.

In descending mountain grades regeneration is used to control the speed. Two connections of regeneration are available, one covering the range from 20-65 m.p.h. and the other from 10-30 m.p.h. The first connection is the one ordinarily used. The speeds permissible when descending mountain grades (1.5 per cent and over) vary from 20 m.p.h. on grades having bad curves, rocks, etc., up to 35-40 m.p.h. for open straight track. The first limit is set by the ability to stop within a limited distance on account of vision and the second represents about the maximum speed from which the air brakes can be safely relied on to stop the trains. On lighter grades higher speeds may be made but the maximum is usually 50-60 m.p.h.

Regenerative Braking

Regeneration saves the wear and tear on brakes, shoes, etc., and also the jar to the train caused by the repeated applications of the brakes. When operating with steam power on grades with numerous curves the trains are taken down by means of successive applications and releases of the air brakes, never making a heavy application and only occasionally releasing them entirely. This results in a fairly even speed. On the heaviest grades this method cannot be used because of the tendency to gradually apply the brakes hardest on the cars at the rear of the train and put most of the work on those brake shoes. This is the reason for the occasional complete releases referred to above. They are usually made when the train is entirely in a curve or just entering one so that the train will not speed up too much while the brakes are entirely released.

The practice on the heaviest grades, particularly when nearly straight, is to allow the train to accelerate to the maximum speed, say 35-40 m.p.h., allowed on that grade, then a fairly heavy application of the brakes is made and the

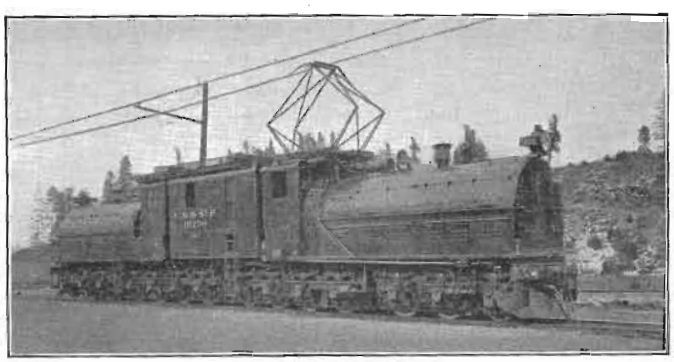

Fig. 1. The Bi-Polar Gearless Passenger Locomotive Built by the General Electric Company

brakes are kept applied until the train slows down to about 15-20 m.p.h., when the brakes are entirely released and the train is allowed to run free until the maximum speed is again reached, which gives time enough for recharging the brake pipe. This results in considerable jar to the train but makes the brakes on all cars apply uniformly. Retainers are not ordinarily used on passenger trains.

This jar is eliminated by the use of regeneration and the train may be held at a uniform speed. Within the capacity of the locomotive this speed may be varied to obtain the maximum desirable for any given part of the grade. This variable speed regeneration is especially desirable when handling train weights less than the maximum, as then a wide range of speeds can be obtained. Stops for cooling brake shoes and wheels are also eliminated which are required on some grades when operating with steam power.

Little Helper Service Required

The electric locomotive has a big advantage over steam power in that it is entirely feasible to build a locomotive big enough to go over the entire profile and thus eliminate helpers on the heaviest grades. This is best shown by Table II.

With electric operation helpers are not used at all on the passenger trains. The locomotive shown in Fig. 1 weighs

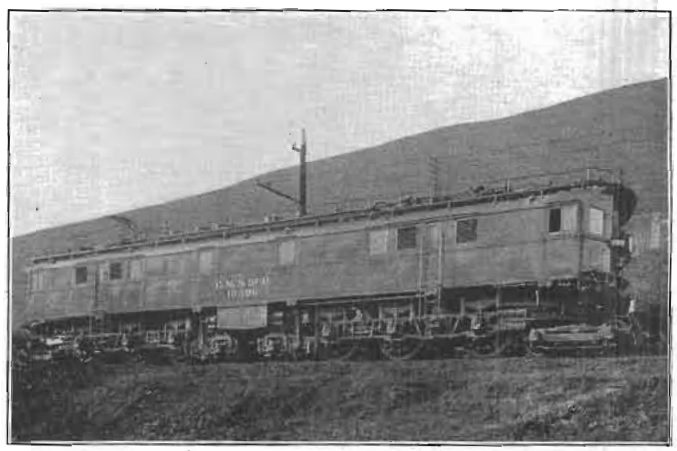

Fig. 2. The Quill-Geared Passenger Locomotive Built by the Westinghouse Electric & Manufacturing Company

265 tons and is capable of handling a 960-ton train, trailing (13 cars) on a maximum grade of 2.2 per cent. This

TABLE II—HELPERS ON C. M. & ST. P. RWY. STEAM OPERATION

Eastbound Passenger Trains

Division	Helper station	Helped trains to	Distance	Helpers ran to	Distance
Coast	Cedar Falls	Rockdale	19.2	Rockdale	19.2
Coast	Kittitas	Boylston	10.5	Beverly	29.3
Missoula	Avery	Roland	21.7	Haugan	37.8
Rocky Mountain	Butte Yard	Donald	14.9	Donald	14.9

Total miles electrified divisions	646.2
Total miles helpers required	66.3
Percentage of miles helper required to total miles electrified divisions	10.2
Total helper district miles	101.2
Percentage of helper district miles to total miles electrified divisions.	15.7

Note—With trains more than 10 cars or about 735 tons trailing, it was customary to provide helpers on the coast division from Renton or Maple Valley to Cedar Falls in addition to that shown. On the Rocky Mountain division it was customary to double head the train over the entire division from Deer Lodge to Harlowton under this condition.

Westbound Passenger Trains

Division	Helper station	Helped trains to	Distance	Helpers ran to	Distance
Rocky Mountain	Lennep	Loweth	9.7	Loweth	9.7
Rocky Mountain	Piedmont	Donald	20.7	Donald	20.7
Missoula	Avery	Haugan to East Portal	14.1	Avery	37.8
Coast	Beverly	Boylston	18.8	Kittitas	29.3

Total miles electrified divisions	646.2
Total miles helpers required	63.3
Percentage of miles helper required to total miles electrified divisions	9.8
Total helper district miles	97.5
Percentage of helper district miles to total miles electrified divisions.	15.1

Note—The double heading on eastbound trains on the Rocky Mountain division frequently required considerable double heading on the westbound trains in order to return the engines to the proper terminals.

permits it to operate on any grade between Harlowton and Seattle. The elimination of helpers saves considerable time previously required by stops and delays incident to cutting helpers in and out of the trains. Where helper districts form a considerable portion of the division it is certainly best to make the locomotive large enough to handle the train over the entire division alone.

Metering and Air Brake Equipment Used

In order to make more clear the subsequent descriptions of the detailed handling of the trains it seems best to first describe briefly the metering and air brake equipment of the locomotives. This description applies to both passenger and freight locomotives. At each operating position in front of the engineer there is placed a panel on which are mounted two ammeters and the two air brake gages. One of these ammeters has the zero in the center of the scale and indicates to the right, the current being taken by one motor from the line when motoring and to the left the current delivered by one motor to the line when regenerating. It is called the line ammeter. The other ammeter is called the field ammeter, has zero at the left end of the scale and always indicates to the right. It indicates the current in the field of one motor and this is the same as the line current while motoring.

A voltmeter indicating the trolley voltage and a speedometer are also furnished. The two gages for the air brakes are the same ones furnished on steam engines and show main reservoir, equalizing reservoir, brake cylinder and brake pipe pressures. The air brake equipment is known as the modified EL14 and consists essentially of two ET6 equipments operating together.

At each operating position two inter-connecting brake valves are provided, the automatic brake valve for controlling the automatic brakes on the train and locomotive and the independent brake valve controlling the brakes on the locomotive only, by which they may be applied and released regardless of the brakes on the train.

An electro-pneumatic valve is provided on the bipolar passenger locomotives which keeps the independent brakes released on the locomotive while it is regenerating. This prevents the application of both at the same time, which is liable to slip the wheels. A pneumatically operated switch is also provided which cuts off all power when motoring or regenerating and also allows the independent brakes to apply, in case an emergency application of the automatic brakes is made either by the brake valve or from the train. These features are quite valuable and are not installed on the older freight locomotives.

Passenger Train Handling

The handling of passenger trains is less complicated than that of heavy freight trains but a different kind of skill is required for each. The most important requisite is that the engineer must be able to judge braking distances correctly at various speeds when using the air brakes. The locomotive should have a reasonable number of steps in the control so that power may be applied gradually.

In starting a train on a level, or nearly level, track the controller is simply pulled out notch by notch, the engineer meanwhile watching the ground until the train just starts to move, when it is usually pulled out more slowly until the locomotive has moved a few feet, after which the acceleration may be increased to the desired rate. This avoids any slack action or jolting of the rear cars due to the head ones being started too quickly. It is seldom necessary to take the slack when starting a passenger train with an electric locomotive, as is usually the case with steam engines. When necessary it is usually caused by the condition of the rail being such that a high coefficient of adhesion cannot be obtained.

In stopping on the level or on light grades, the controller is shut off and an application of the air brakes made, the amount varying with conditions. Before coming to a stop it is customary to release the independent brakes partly or entirely. This allows the locomotive to stretch the slack out of the train, which permits starting again without any jolts to the rear cars.

Electric locomotives, especially those of the bipolar type, have much less friction than steam locomotives and this is

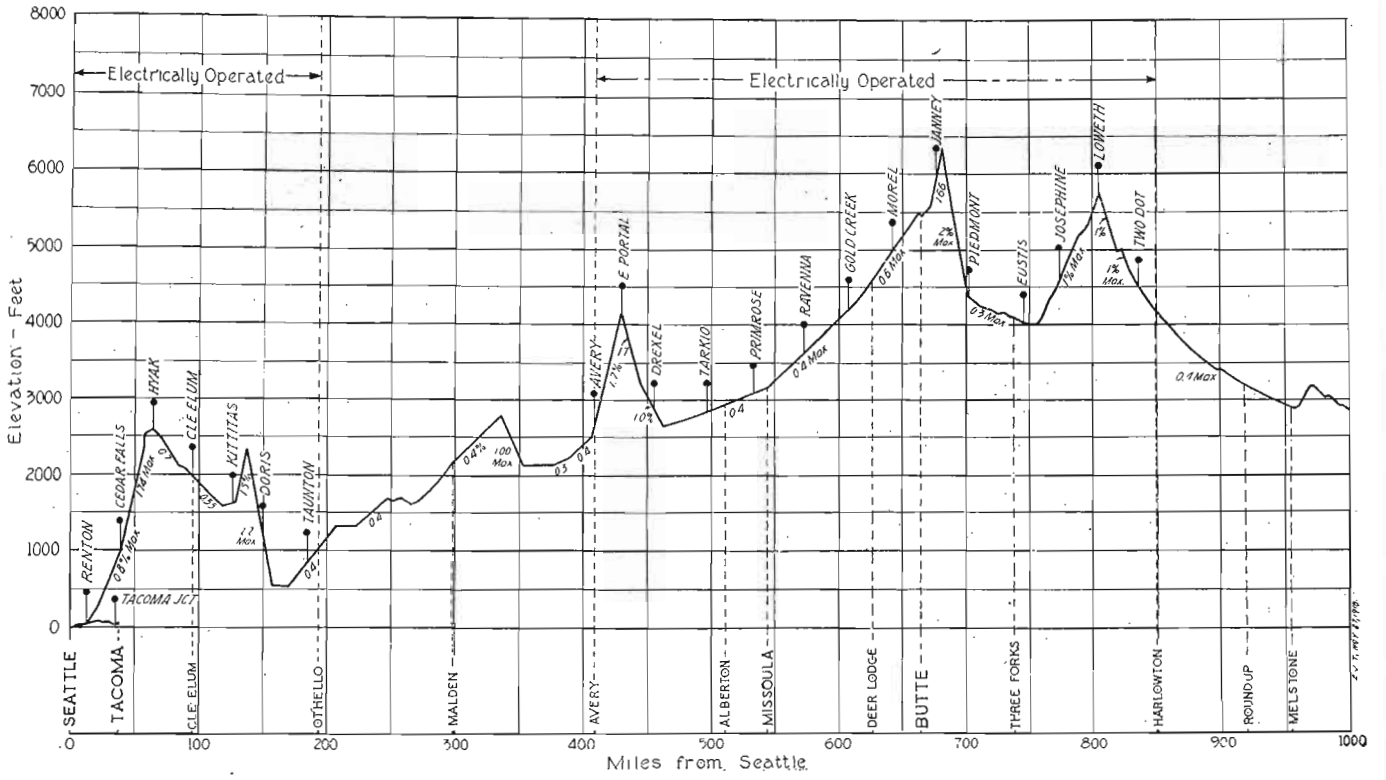

Fig. 3. Profile of the St. Paul, Including the Three Electrified Divisions

very noticeable in handling passenger trains on light grades, either ascending or descending. A steam locomotive when shut off at once shoves back against the train and tends to bunch the slack. When making slow-downs for curves it is necessary to keep working a small amount of steam to prevent this action even while the brakes are applied on the train. With the electric locomotive this is no longer necessary, as when power is shut off there is little or no tendency to bunch the train slack.

On grades of about .4 per cent maximum descending the electric locomotive will coast with the train very easily and seems to have about the same friction as the train. On grades of about .6 per cent maximum it is possible to regenerate a little. Steam engines on these grades would require working a small amount steam (drifting throttle).

Starting on Grades

When standing on mountain grades the train is held by keeping the independent brakes applied on the locomotive with brakes released on the train. When it is desired to start the train, the controller is pulled out two or three notches and the brakes released, the controller being then brought out notch by notch until the train either moves or the locomotive slips its wheels. An experienced engineer keeps close watch on the ground while doing this to see exactly when the train first starts, although he also manages to watch the ammeters so as not to apply too much current. As soon as the train has started moving the controller is held in that notch until the locomotive has moved a few feet, and then the acceleration is continued at the desired rate. This is usually as close to the wheel slipping point as can be held.

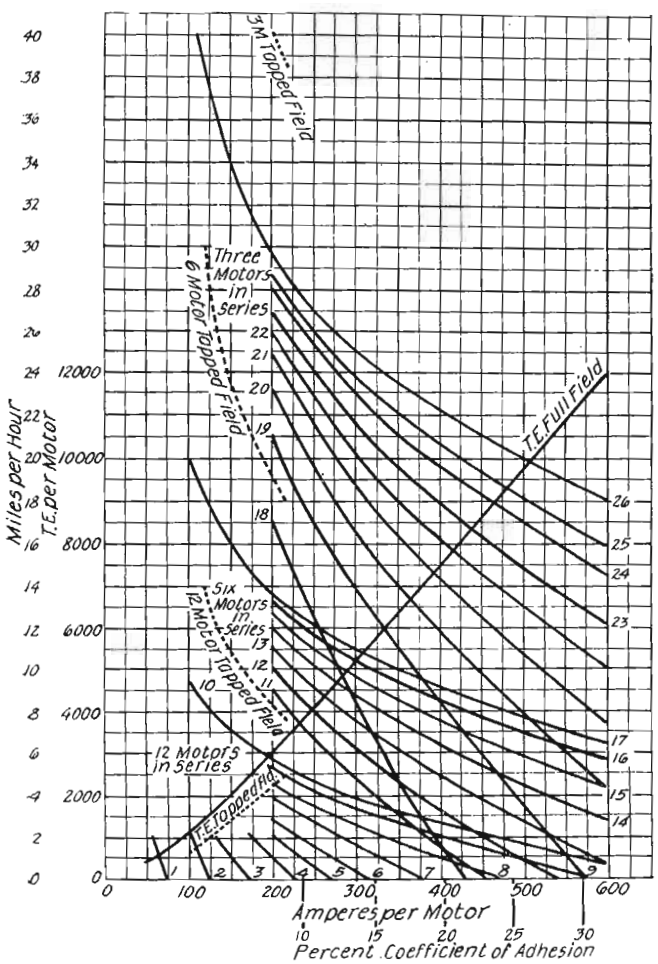

Fig. 4.—Speed-Tractive Effort Curves on Resistance with 12, 6 and 3 Motors in Series for the Gearless Locomotive

In stopping on an ascending mountain grade the controller is eased off a couple of notches or so at a time until it reaches the second or third notch. With the controller in this position the train is allowed to "stall," the independent brakes are applied and the controller is then shut off.

When taking a siding on an ascending mountain grade the controller is shut off slowly to a notch in which the train will just keep moving. This allows the brakeman to get off and run ahead to open the switch and allow the train to head in on the passing track without actually stopping. The train is then speeded up by bringing the controller out a few notches, but when the rear of the train is nearly over the switch it is necessary to move the controller back several notches again in order that the rear brakeman may get on after closing the switch without having to stop the train.

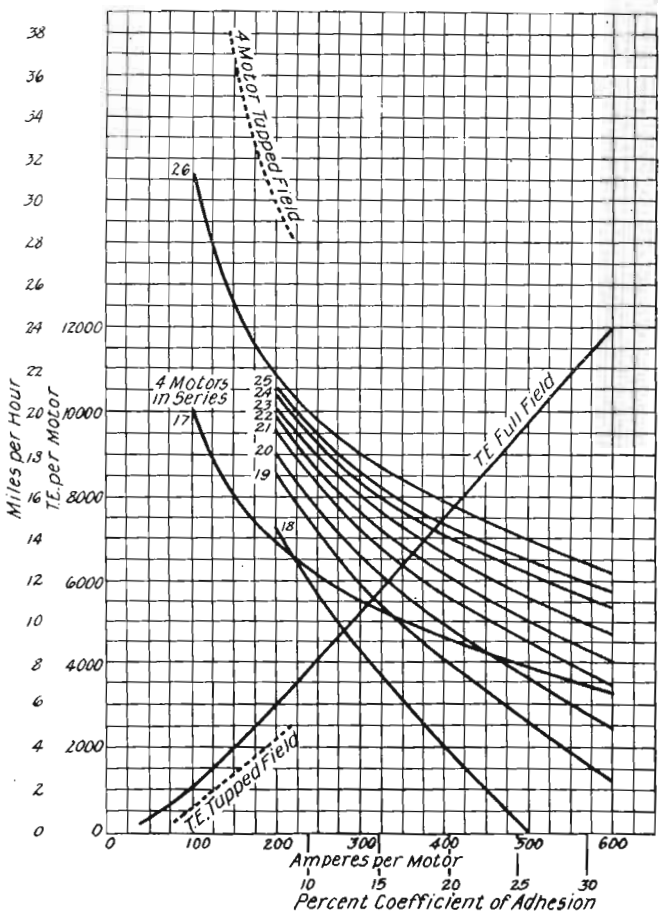

Fig. 5. Speed-Tractive Effort Curves on Resistance with 4 Motors in Series for the Gearless Locomotives

The Use of Regenerative Braking

During regeneration four of the motors are used to excite the fields of the other eight which return energy to the line. A separate handle on the controller is used to control the regeneration and this is known as the braking handle to distinguish it from the main handle which controls the acceleration and motor grouping.

Two methods are provided for commencing regeneration. The first method permits of commencing regeneration without interrupting the motoring current entirely although reducing it in amount. This method is very desirable when tipping over the summit of a grade, as then the locomotive passes over into regeneration very easily. Furthermore, some of the grades tip over very sharply, and it is necessary to

keep power applied to the train until it actually gets on the down-grade and begins to speed up. This can be done very conveniently by this method.

The second method was intended for use when starting from rest on descending mountain grades. It allows regeneration to be commenced without any motoring current being applied first. When using this method the train is allowed to start from rest and run free until a speed of 5 to 10 m.p.h. is obtained, depending upon the grade, the independent brakes on the locomotive being used to some extent to control this speed. Regenerative braking connections are then applied, and after they have been fully established, the operation is the same as with the first method. Theoretically, this should allow better train handling than the first method, since there is no motoring first to pull out the train slack.

Practically no difference was found by several months' experience, and the first method is used almost entirely now. From this it may be concluded that any method of applying regeneration to a passenger train will be successful providing that there is not too much motoring at first. In passing it may be noted that in the older geared passenger locomotives supplied the C. M. & St. P., it was necessary to apply full motoring connections before regeneration could be commenced, and these locomotives were very successful in service for several years. They were finally converted into freight locomotives by changing the gear ratio. This was done because at the time they were purchased it was considered desirable to have only one type of locomotive for both freight and passenger service and not to adopt a purely passenger type until more locomotives were required.

When descending a mountain grade regenerating, if it is desired to stop the regeneration is slightly decreased by moving the braking handle back one or more notches, the automatic brakes are applied with a light service application of about 10 lb., and when the line ammeter indicates that the current returned to the line is nearly zero both handles are shut off and the application of the automatic brakes is continued to the desired degree to stop the train. The independent brakes apply on the locomotive as soon as the controllers are shut off. As soon as the train comes to rest the automatic brakes are released on the train and the independent air brakes are applied on the locomotive to hold the train.

In starting again, the independent brakes are released and power is applied to start the train. The controller is brought out to the position where regeneration can be commenced and regenerative braking connections are established as previously outlined.

It is sometimes necessary when regenerating to make slow downs at a faster rate than the regeneration will make them. This is done by applying the automatic air brakes on the train, the independent brakes being kept released automatically. In case the speed should be reduced too much the locomotive will commence to motor and if this becomes objectionable in amount the controller is shut off until the brakes are released and full speed can be resumed. There is no difficulty in using the air brakes and regeneration at the same time.

Kind of Control Required

In order to meet the conditions of train handling as described above successfully, especially those for mountain grade operation, the control equipment of the locomotives must be so designed that power may be applied gradually both to prevent wheel slipping of the locomotive and also to prevent jolts to the train. This requires an ample number of steps of resistance and proper proportioning of the same. The accelerating curves on resistance are shown in Figs. 4 and 5. The increments of tractive effort between steps when accelerating to a maximum of 25 per cent coefficient of adhesion are about 22,000 lb. for the 12 motors. This is about the maximum increment between steps that should be applied to a passenger train. The change in coefficient of adhesion between steps is about 5 per cent, which represents somewhere near the maximum for this weight of locomotive which should be allowed if the wheels are not to slip too easily when going from one resistance step to the next.

Furthermore, if the train is to be handled smoothly the same steps should be obtained when turning off the controller as when turning it on. This bars out arrangements such as used on some trolley cars where the power circuit is opened as soon as the controller is started back toward the off position.

Ample capacity should be provided in the rheostats. The above locomotive can be worked at 300 amperes, corresponding to 14 per cent coefficient of adhesion for about 10 minutes or at 485 amperes corresponding to 25 per cent coefficient of adhesion for about 5 minutes without overheating the rheostats. These values represent approximately the capacity required for mountain grade service.

Regulations for Competitive Bidding Under Clayton Law

THE REGULATIONS issued by the Interstate Commerce Commission on October 6, 1919, governing the method for obtaining competitive bids on transactions covered by the Clayton law, which became effective on January 1, are as follows:

1. When any carrier, subject to the act to regulate commerce, is required by section 10 of the Clayton Anti-trust Act to call for bids for securities, supplies, or other articles of commerce, or for the construction or maintenance of any kind or part of its carrier property such carrier shall prepare specifications, form of proposals and contract, setting forth clearly and so far as applicable in each case in detail a description or descriptions of the matters and things for which bids are requested, the terms, times and conditions of delivery and payment, the place or places where delivery or performance is to be made, the character, amount, and terms of securities offered or sought, and a full description of the supplies or other articles required or offered for sale, hypothecation, or purchase, and shall make and attach to such specifications such maps, drawings, and illustrations and state such other substantial facts or conditions as are or may be necessary to a full understanding of the premises and procedure by bidders. Such specifications, drawings and illustrations in each case shall be kept open at the principal office or offices of the carrier for full examination, free of charge, by persons desiring to examine the same with a view to bidding, and, upon request, such carrier shall furnish to any person or persons desiring the same true and accurate copies of such specifications, maps, drawings and illustrations; *provided* that the carrier may make a charge for such copies so furnished, the charge not to exceed the reasonable cost of making and forwarding the copies requested.

The carrier shall publish in each case a request for bids in at least two daily newspapers of general circulation, at least two publications in each week for two weeks, the first publication to be at least two weeks immediately preceding the day when the bids are to be submitted; one such newspaper shall be published or shall be of general circulation in the city or town where the principal operating office of the carrier is located and the other newspaper shall be published in one other of the following cities nearest to the operating or financial office of the carrier or the place where the contract is to be performed, namely: New York, N. Y., Boston, Mass., Chicago, Ill., St. Louis, Mo., Atlanta, Ga., San

Francisco, Cal., and Portland, Ore.; and a printed copy of the published notice in each case shall be posted in plain view, for two weeks immediately preceding the day on which bids are to be received, on a bulletin board, designated for that purpose, in a public and conspicuous place in the building where the principal operating office of the carrier is located. Such published notices shall describe in general but intelligible terms the proposed contract, giving its serial number, and the special matter or things for which bids are requested, and the date on or before which the bids must be submitted, and the person by whom and the office at which the bids submitted will be received and opened as herein provided. The carrier may in said notice reserve the right to reject any and all bids and may, at its option, require each bidder to tender a bond in a reasonable sum to be therein named, with sufficient surety or sureties conditioned upon the faithful and prompt performance of the terms of the contract.

2. Every bid to receive consideration shall be submitted at the place specified in the notice on or before noon of the day on which the bids are to be opened and the bids shall be opened after noon and before six o'clock, on the day and at the place and by the person or persons designated in the notice. Each bidder may attend in person or by duly authorized representative at the opening of the bids, and shall be afforded an opportunity to do so and to examine each bid. The bids shall forthwith be tabulated in conformity with the form of proposal prepared and a copy of such tabulation shall be promptly furnished to any bidder or his authorized representative upon application therefor.

When required by the notice, each bid shall be accompanied by tender of a bond in the amount specified in the notice with sufficient surety or sureties conditioned upon the faithful and prompt performance of the proposed contract. A bond shall be required only in cases where the notice for bids expressly calls for a bond.

Each bid shall be enclosed with accompanying papers in a plain envelope securely sealed bearing no indication of the name of the bidder or the amount of the bid, and shall be marked "Bid under proposed contract No. ——," and shall be addressed to the officer of the carrier designated in the notice to receive the same.

Each bid shall state the name and address of the bidder and, if the bidder be a corporation, the names and addresses of the officers, directors and general manager thereof and of the purchasing or selling officer or agent in that transaction and, if the bidder is a firm, partnership or association, the bid shall give the names and addresses of each member thereof, and of the manager, purchasing or selling officer or agent in that transaction.

3. After receiving and opening bids as aforesaid, the carrier receiving the same shall within 48 hours in cases where the sale or purchase of securities is the undertaking, and within ten days where bids are for supplies, equipment, other articles of commerce and for construction or maintenance work, accept the most favorable bid considering (1) the lowest price or prices for the supplies, equipment, and other articles of commerce, and for the construction or maintenance work, described in the advertisement, and the highest price or prices offered for any securities or property, so described, for sale by the carrier, and (2) the ability and reliability of the bidder, financial and otherwise, to deliver the property or to perform the work or transaction, or to pay for the securities, described in the advertisement, giving due consideration to any bond or security tendered by the bidder. If the right be reserved in the notice all bids may be rejected and the carrier may readvertise for bids. The carrier shall notify the successful bidder of the acceptance of his or its bid, and the bidder shall within ten days execute the required contract, and, if required by the notice, execute a good and sufficient bond for the faithful and prompt performance of the contract. In case the successful bidder shall neglect or fail within said time to execute the contract or bond as aforesaid the carrier may within five days award the contract to the next most favorable bidder, ascertained as herein provided for determining the most favorable bidder. If neither the most favorable bidder nor the next most favorable bidder shall execute a contract and qualify as aforesaid, the carrier shall readvertise for new bids.

4. Each carrier after having made and executed a contract as and in the manner above specified shall within 30 days after the execution of such contract file with the Interstate Commerce Commission a statement of the transaction giving, (a) a copy of the published notice; (b) the names of all bidders, and, if the bidder be a corporation, the names and addresses of the officers, directors and general managers thereof and of the purchasing or selling officer or agent in that transaction, or if the bidder be a partnership or firm, the names and addresses of the members of the firm, the general manager and purchasing or selling agent thereof, and the total amount of each bid; (c) the name of the bidder to whom the contract was awarded together with a copy of the contract; and (d) if any other than the lowest or the highest bid, as the case may be, is accepted as being most favorable to the carrier, the reasons for such acceptance. The statement shall be made in typewriting, in pamphlet form on pages not less than 8 by 10½ in. in size nor greater than 9½ by 12 in. in size, bound on the longer edge of the page, the paper to be of durable quality fit for permanent record.

5. [*As amended October 4, 1920.*] In the case of each bid so taken as aforesaid, the carrier shall preserve and keep open for examination by the Interstate Commerce Commission or any duly authorized examiner thereof, (a) a copy of the resolution or order of the board of directors, executive committee, or officers of the said common carrier specifying the purposes and terms of the contract for which the bids were invited; (b) a copy of the specifications, maps, drawings, and illustrations upon which bids were made; (c) copies of the notices published, sworn to by or on behalf of the publisher of each paper, respectively, giving the dates and times of publication; (d) the original bids received, designating the bid accepted and giving a statement of the reasons for accepting the same; (e) a copy of the contract entered into between the carrier and the accepted bidder, together with a copy of the bonds if any; (f) references by number of volume and page to the records of proceedings of the stockholders, directors, or executive committee of the carrier. The files in each transaction shall be securely fastened together and given the contract number and each document therein shall be numbered consecutively and at the conclusion there shall be a sworn statement by the president, a vice president, or the general manager of the carrier, stating that the files in No. —— contain true and complete records and statements of all the negotiations had in connection with the contract therein set forth. Such files shall not be broken or any part destroyed by the carrier or any officer or agent of the carrier without written authorization from the Interstate Commerce Commission.

SOUTH GEORGIA has been brought into closer touch with North Georgia and the cities of the North, East and West, through the establishment by the Southern Railway of an over-night freight service between Atlanta and South Georgia points. The new train is "The Wiregrass Special." It will leave Atlanta every night at 7 o'clock and Macon at 2 o'clock the following morning, carrying through carded freight to Macon and South Georgia points and making delivery from Atlanta at most of these points the following day. The train will be run over the Georgia Southern & Florida.