Northern Pacific Railway Company. Engineering Department Records.

Version 3
August 20, 2018

COPY

St. Paul, May 11th, 1920.

Mr. W. T. Tyler,

Vice President.

Dear Sir:

I am returning you herewith Mr. Hannaford's letter of April 24th, and as per your pencil memorandum on this letter, I have placed requisition for 600,000 gallons of California crude oil; 500,000 gallons of which are to be shipped to the Paradise plant, and shipping directions for the balance to be furnished by the Superintendent of the Tie Treating Plants as desired.

If our supply of creosote continues to come along at present rate it may be possible for us to continue the all creosote treatment at Brainerd, using the fifty-fifty mixture at Paradise only, but if for any reason the creosote shipments should be delayed, we would have to mix in a little oil at Brainerd. Mr. Gibson will handle the shipments on that basis.

It might be advisable to mark at the plants for identification purposes the ties which are treated with a fifty-fifty mixture, in order to get definite record of their service. As you know, we discontinued the use of tie dating nails January 1, 1919, consequently a twenty dating nail placed at the plant would give us correct and positive information on the fifty-fifty treatment.

This would require about 600,000 nails, at a cost of $1500.00. Personally, I think the information would be worth this expense. Do you approve?

California crude oil must be used in this mixture as this has an asphalt base.

Yours truly,

St. Paul, May 15, 1920.

Memorandum for Mr. Stevens:

Referring to your memorandum of the 11th and returning papers in regard to the use of a fifty-fifty mixture of California crude oil and creosote for tie treatment.

I believe it would be well worth our while to use a 1920 dating nail for ties treated with the fifty-fifty mixture in order that we may have the benefit of the data as to their lasting qualities, and you may so arrange.

WDD.

3659

St. Paul, May 19th, 1920.

Mr. O. C. Wakefield,

General Storekeeper.

We expect to treat at the Paradise Plant about 500,000 ties with a fifty-fifty mixture of creosote and crude oil. In order to distinguish these ties from ties which have received the all creosote treatment, it has been suggested that we mark them at the plant with a 1920 dating nail.

I am attaching requisition for 500,000 1920 nails to be delivered at the rate of 100,000 per month. EO 516

Will you kindly advise when we may expect the first shipment and approximate price of this material.

Chief Engineer.

HES-ar

Encl.

Paradise, Mont., May 27th., 1920.

Mr. H. E. Stevens,

Chief Engineer,

St.Paul, Minn.

Dear Sir:-

Have been looking over the matter of putting dateing nails in mixture treated ties (your Reqn. #616, May 20th.)

I would suggest that these nails be placed in the ties after placeing in track or it will badly delay the output of the Plant. Seven ties per minute are run through the Machine and it takes four men to feed them through and while that work is going on, if any interuption, it delays all the work of handling through the Machine and also treating.

I beleive the placing of the dating nails can be done very much more conveniently and cheaper by the trackmen and they will have no trouble picking out the mixture treated ties after placing in track. Was under the impression that we could apply the nails here but find on close observation it cannot ~~be~~ possibly be done except at a considerable sacrifice of time unless the nails be placed in the ends of the ties which I would say would not be proper location for them.

We commence treating with the mixture this afternoon and hope to treat and ship out about 3,200 ties daily and no dating nails here yet so that if the delivery of dating nails will be like other material we get, we will have a great many ties shipped out before receipt of any nails.

As soon as the nails arrive can forward sufficient to take care of ties shipped to that time to Superintendents to whom mixture treated ties are shipped if this will be O.K.

Yours truly,

Chas. Thomas

Supt. T.P.& T.T. Plants.

X

St. Paul, June 1st, 1920.

Mr. A. Gibson,
Supt. Tie Treating Plants,
Brainerd, Minnesota.

Dear Sir:-

Your letter of May 27th regarding placing dating nails in mixture treated ties.

At the time we discussed this I suspected you would find some difficulty ~~in~~ and delay in placing the nails at the plant, but on the other hand, if placed in the field it seems to me we would have little if any assurance that the nails are placed in the proper ties.

I think you will have to handle this in connection with your annual inspection of test tracks and check up at that time and see if the nails have been put in.

It also seems to me we will have to have the nails consigned to the Paradise Plant and ship out from there sufficient number to cover the mixture treated ties at the various locations to which these ties are assigned.

It is quite uncertain when we will receive the nails and for that reason it will be necessary for you to keep careful record of the locations where the mixture treated ties are being placed.

Yours truly,

Chief Engineer.

HES-ar

Brainerd, Minn., June 2, 1920.

Mr. H. E. Stevens,
Chief Engineer,
St. Paul, Minn.

Dear Sir:

Referring to your letter June 1st with reference to placing dating nails in treated ties.

We know at Paradise where the ties are consigned to, but superintendents do not always use them at the point where they are consigned; but if the superintendents are instructed to have these dating nails placed in mixture treated ties, roadmasters and section men should have no trouble in finding these ties as at Paradise they are instructed to mark billing "Mixture Treated Ties." Having this information they should have no trouble in finding the mixture treated ties.

Of course, when we make the inspection of the test tracks, I will look around as much as I can to see that dating nails are placed; but dating nails will be placed on branch lines and outside points where I would have no time to look after. In fact, it would be an impossibility for me to watch this matter closely. It would take an inspector whose time would be devoted to this work entirely to check it up closely; but I can not see why there should be any trouble experienced if the superintendents are advised by yourself that the dating nails will be shipped from Paradise when received, and that they should be applied to the mixture treated ties furnished from Paradise plant this season.

It is liable to be next Fall before the dating nails are received, if, as I said in my former letter, they are furnished in the same way as other material we have made requisition for months ago and some of it a year ago and not yet received.

Yours truly,

Arnold Stevens

Supt. T. P. & T. T. Plants.

3659

St. Paul, June 3rd, 1920.

Mr. Andrew Gibson,
Supt. Tie Treating Plants,
Brainerd, Minnesota.

Dear Sir:-

Your letter of the 2nd regarding application of dating nails to mixture treated ties.

I wish you would handle this matter with the Superintendents and then check up as well as you are able to do as opportunity offers in order to ascertain if work is being handled in accordance with the instructions. If any discrepancies or misunderstandings are encountered in this superficial inspection, it might be advisable for you to send a man around to make a general check.

Yours truly,

Chief Engineer.

HES-ar

3659

Brainerd, Minn., June 5th, 1920.

Mr. G. H. Jacobus, Supt.,
Glendive, Mont.

Mr. T. H. Lantry, Supt.,
Livingston, Mont.

Mr. F. L. Bartles, Supt.,
Missoula, Mont.

Dear Sir:

We are shipping mixture treated ties to you from Paradise, and would appreciate it very much if you would have section foremen keep track of where these ties are placed, so that when a supply of dating nails is received, which is now ordered, will ship to you a sufficient quantity to place in these ties. It is desired that we keep a record of the mixture treated ties so as to find out how they compare for wear and service with the creosote treated ties.

I have been advised to give you this notice and would appreciate it very much if you will have section foremen instructed as above. Just as quickly as the supply is received, we will send to you from Paradise a qantity of dating nails so that they can be applied when the ties are being placed; but should there be any placed before the nails arrive, it would be well to have them properly located so that there would be no trouble distinguishing them from the other ties, when the nails arrive.

The invoices covering mixture treated ties will be marked "Mixture Treated Ties", so that there will be no difficulty in designating these ties.

Yours truly,

Supt. T. P. & T. T. Plants.

Cy.-Mr.H.E.Stevens: I think the above will take care of the matter referred to in regard to placing dating nails on mixture treated ties. Your letter June 3d. The Tie Plant has already been instructed to [illegible] all invoice [illegible] "Mixture Treated Ties."

[illegible]

16 3659

St. Paul, Minn., June 24, 1920.

DL-724

Mr. H.E.Stevens,

Chief Engineer.

Dear Sir:

Referring to your letter May 19th. in connection with 1920 tie dating nails. Matter was referred to Purchasing Agent and he advises as follows:

"Replying to your memo. of May 22nd. and returning herewith letter addressed you May 19th. by Mr. H.E.Stevens, Chief Engineer.

According to present schedule, it will be the latter part of July or early part of August before the American Steel & Wire Company can ship tie dating nails, your requisition No. 7026. In view of your report, however, I prevailed upon them to make a partial shipment of about five kegs and believe they will go forward sometime early in July."

Yours truly,

General Storekeeper.

W-d

Mr Stevens - Purchasing Dept has no price yet on these

NG 6/25

3659

On Line, Yellowstone Division,

June 27th, 1930.

Mr. Andrew Gibson,

Superintendent Tie Treating Plants,

Brainerd, Minnesota.

Dear Sir:-

I am attaching for your information copy of Mr. Wakefield's letter of the 24th about shipment of tie dating nails.

Yours truly,

Chief Engineer.

HES-ar

encl.

3659

Brainerd, Minn., July 7th, 1930.

Mr. H. E. Stevens,
Chief Engineer,
St. Paul, Minn.

Dear Sir:

Replying to your letter of June 27th with reference to dating nails.

As soon as these dating nails arrive will have supply sent out to the divisions to which mixture treated ties were shipped, for inserting into these ties. I talked this matter over with a few of the roadmasters on my way to an from Paradise recently and I do not think there will be any difficulty in applying them to the mixture treated ties.

Yours truly,

Supt. T.P. & T.T. Plants.

3659

St. Paul, Minn., August 2, 1920.

DL-18.

Mr. H.E. Stevens,

Chief Engineer.

Dear Sir:

Referring to your letter May 19th, and mine June 24th, in connection with 1920 tie dating nails. Wish to advise that they were shipped July 24th.

Yours truly,

C. W. Ahlefeldt

General Storekeeper.

W-d

3659

St. Paul, Minn., August 3d, 1920.

Mr. Andrew Gibson,

Supt. T. P. & T. T. Plants,

Brainerd, Minn.

Dear Sir:

The General Storekeeper advises me that the 1920 tie dating nails were shipped July 24th.

Yours truly,

Chief Engineer.

REG/arj

FORM 1386

Telegram—Be Brief

Time Filed

M.

St Paul September 7 1930

A R Cook

Tacoma

R-3 Assistant General Managers instructed to discontinue general use of tie dating nails last spring. Nails are to be applied as a distinctive mark to mixture treated ties only. S-3

H E Stevens

Telegram--Be Brief

Time Filed

M.

289 BY ED

Tacoma Sept 4 1920

H E Stevens

ST PAUL

Am receiving requisitions for dating Nails for 1921 work understand practice of furnishing dating Nails is discontinued advise R three

A R Cook

435 PM

St. Paul, September 7, 1920.

Mr. A.F.Stotler,
District Engineer,
Tacoma, Washington.

Dear Sir:-

Your message about requisitions for dating nails for 1921 work.

The Assistant General Managers were advised last spring to discontinue the general use of tie dating nails, subsequently, we decided to use a mixture of fifty percent creosote and fifty percent crude oil at our tie treating plants, and in order to distinguish ties treated with this mixture from ties treateded with the straight creosote instructions were issued to apply 1920 tie dating nails to all mixture treated ties. Mr. Gibson made requisition for 500,000 tie dating nails for Paradise, and it is my understanding he is distributing these without requisition, but possibly some of the Superintendents who are aware of these instructions may have made requisition for the necessary nails. If so, they should be cancelled and the matter handled through Mr. Gibson, otherwise there will be a mix-up and duplication of orders.

Yours truly,

Chief Engineer.

HES-ar

cc-Mr. Andrew Gibson.

Saint Paul, September 7th, 1920.

Mr. Andrew Gibson,
Superintendent Tie Treating Plants,
Brainerd, Minnesota.

Dear Sir:-

Please note attached copy of message from Mr. Stotler and my reply about tie dating nails.

Have you as yet issued any general instructions for the use of tie dating nails on mixture treated ties? I find copy of letter to Messrs. Jacobus, Lantry and Bartles, but nothing regarding the other divisions.

Possibly some of the Superintendents made requisition for the 1920 nails and are now anticipating 1921 requirements for marking mixture treated ties.

In order to avoid duplication and misunderstanding, I think you should handle the matter and instructions should be issued so that all will be correctly informed.

Yours truly,

Chief Engineer.

HES-ar

Encls.

#3---H.E.S.

Will drop in and talk with you on this matter the first time I am in St.Paul. In the meantime, I think that Superintendents and others have all the information and instructions they need in regard to the use of the dating nails. The Paradise Plant, to whom the dating nails are being shipped, have instructions to ship out a sufficient quantity to take care of mixture treated ties forwarded from that plant; and as soon as the nails arrive I will give instructions where to ship the nails to the Eastern Divisions, East of Montana, where mixture treated ties were shipped.

Yours truly,

Supt. T. P. & T. T. Plants.

Brainerd, Minn., Sept. 9th, 1920.

Mr. H. E. Stevens,
Chief Engineer,
St.Paul, Minn.

Dear Sir:

Referring to your letter of the 7th, relative to tie dating nails.

We have not yet received any of the dating nails and, therefore, have not shipped any. I am sending copy of the letter forwarded to Messrs. Jacobus, Lantry and Bartles, to all other Division Superintendents, advising them of the shipments to be made of dating nails as soon as supply arrives. We have a record of how many mixture treated ties are sent to each division and as soon as the dating nails arrive, we will send to each Superintendent a sufficient number to apply to the mixture treated ties sent to his division. We are, of course, still shipping the mixture treated ties and will, in all probability, continue to do so as long as our supply of seasoned ties on hand will last, which will be several months at both Brainerd and Paradise.

I think it would be a better scheme for the Superintendents to wait and not make requisition for the 1920 nails until such time as the nails arrive and a supply sent them. This will enable them to make up their requisitions for the exact number of nails which will be used. At present, we cannot say just how many should be ordered for each division, but the letter which I am forwarding to the various Superintendents, will give them information as to how the nails should be handled; and perhaps it might be better for your office or the Engr. of Maintenance to notify them that they can send their requisitions in after the supply of nails is received and it is known how many can be furnished. There are only 500,000 ordered, which I do not think will be sufficient to mark all the mixture treated ties we will be able to treat this year; but as I understand it, the intention is to get an idea of what service the mixture treated ties will give as compared to the straight creosote treatment, and unless it is the intention to use dating nails in all mixture treated ties, this should be sufficient to arrive at a conclusion that will give the information desired. If, however, it is intended to continue using the mixture treated ties and mark each tie with a dating nail, we should make requisition for 500,000 additional.

X

~~3564~~
3659

Saint Paul, October 4th, 1920.

Mr. C. L. Nichols:

Mr. E. C. Blanchard:

The general use of tie dating nails was discontinued under instructions issued in 1919, but account of desirability of having some distinguishing mark for the ties which we are sending out this year treated with a mixture of 50% creosote and 50% crude oil, it was decided to order 500,000 1920 tie dating nails; these nails to be used on the mixture treated ties only. Ties treated with straight creosote and untreated ties to be left unmarked.

As we did not know just how many mixture treated ties would be shipped to each Division, the 500,000 nails were shipped to the Paradise Plant direct and will be distributed from that point in the amounts needed to each Division Superintendent for marking the mixture treated ties.

Mr. Gibson has record of the number of mixture treated ties sent to each Division, and on arrival of the nails will distribute the proper number to each Division Superintendent.

Will you kindly advise the Division Superintendents accordingly and authorize them to place the nails.

Chief Engineer.

HES-ar

cc-Mr. J.M.Rapelje.
Mr. Andrew Gibson.

3659

Brainerd, Minn., Oct. 28th, 1920.

Mr. H. E. Stevens,
Chief Engineer,
St.Paul, Minn.

Dear Sir:

The dating nails for placing in the mixture treated ties have at last arrived at Paradise, and we have shipped out to Rocky Mountain Division 23 kegs, Montana Division 29, Yellowstone Division 6, Idaho 3, and Pasco Division 9 kegs.

This will take care of all mixture treated ties placed in track during the present year; but we have 55 kegs on hand, and while they are dated "1920", I believe we should forward them to the different divisions who have received mixture treated ties for 1921, so that they could be identified. We have shipped a larger number of ties for 1921 renewals than they received for 1920.

Will you please advise if we should ship the balance of the nails on hand to such divisions as mixture treated ties were forwarded to for 1921 renewals. We can ship in accordance with the number of ties forwarded to each division, if you approve.

Yours truly,

Supt. T. P. & T. T. Plants.

Saint Paul, October 30th, 1920.

Mr. Andrew Gibson,
Superintendent Tie Treating Plant,
Brainerd, Minnesota.

Dear Sir:-

Your letter of the 28th regarding shipment of 1920 dating nails for use on mixture treated ties.

I infer from your letter the nails now shipped out will take care of all the mixture treated ties actually placed in the track in 1920. This being the case, I think we should ship the balance of them for use on the ties which have actually been treated and shipped in 1920 but not yet placed in the track. This date will represent the age of the tie and will not be far enough at variance with the date placed in track to make any particular difference in the record we desire to obtain.

Yours truly,

Chief Engineer.

HES-ar

Form 1707 8-20-20 10M RP

Northern Pacific Railway Co.

OFFICE OF Chief Engineer

FILE NO. 3659-B

SUBJECT:

Use and Record of 1920
Tie Dating Nails, Used
with 50-50 Process
(Crude Oil and Creosote).

[1920-1970]

B-2

January 8, 1970

3659-B

Mr. Vernie Wilson
Box 165
Keyes, Oklahoma 73947

Dear Sir:

In reference to your request of December 30, 1969 for information concerning use of dating nails in ties on the Northern Pacific:

From 1907 to 1919 the Northern Pacific placed dating nails in each tie installed. The practice was discontinued in the spring of 1920 as it did not appear that sufficient benefit was being obtained to justify the expense.

Attached is a print of our system map dated February 1, 1967.

Very truly yours,

D. H. SHOEMAKER

Chief Engineer

MOW:sn
Enc.

3659-B

OFFICE OF
CHIEF ENGINEER

JAN 2 1970

NORTHERN PACIFIC RY. CO.
ST. PAUL, MINN.

Keyes, Okla.
Dec. 30, 1969

D. H. Shoemaker - Chief Engineer - Northern Pacific Ry
St. Paul Minn - Northern Pacific Bldg. 5th and Jackson Sts.

Dear Sirs,

I have a hobby of collecting dating nails. I understand your railroad uses or has used these nails and I would appreciate it very much if you would send me any information you might have regarding these nails on your railroad. I would also appreciate your sending me a map of your railroad.

Yours Truly
Vernie Wilson
Box 165
Keyes, Okla. 73947

MOW: Map of NP system attached
No infor. on dating nails in drafting room
OKW 1/7/70

~~OKW~~: Leo
you furnish
print if appropriate
map

1/6/70

WBP: Do we have a file on this?

1/3

3659 B

St. Paul, Minn., Oct. 26, 1937

Mr. A. J. Loom:

I am returning papers of Greenlee Bros. & Co., about method of dating treated ties accompanying your letter of the 25th.

Mr. Kelly talked to me about it, and I believe the system would be satisfactory if the machinery for doing it is not complicated and hard to maintain. I have always liked the idea of marking ties. Quite often dating nails get so dirty that it is necessary to brush them off to some extent in order to read them, and I believe that the method proposed would not be any worse. The thing that I did not care about, and it really has no bearing on the situation, is the adding of another group of machinery to the already complicated adzing, boring and incising plants. If the machine, as I said, is not going to be a nuisance and is reasonable in price, I would certainly favor it.

LS:wp
enc

Office Engineer

Brainerd, Minn., Oct. 25th, 1937.

MR. LOWRY SMITH:

With return of the attached will you kindly let me have your opinion of this method of indicating dates by the position of shallow holes bored in the face of ties.

As you know, I have always believed in dating nails, or if nails were too expensive, some other means of indicating the age of ties in track for the same reasons as quoted in Mr. Kelley's letter.

The method described herein would no doubt be the least expensive of any I know of, but it seems to me the holes will soon fill up with dust and dirt so that they cannot be readily found. I am afraid this would happen with sloppy ties or especially after oiling of track.

What do you think about it?

Gen'l Supt. Timber Preservation.

enc

3659 B

St. Paul, September 27, 1934

Mr. C. H. Burgess:

Referring to our discussion about dating nails in the record test track No. 8-B near Plateau:

On my return I spoke to Mr. Loom and he explained to me that the tie dating nails which I mentioned to you were put in special on this track to designate certain species of ties used in the test; for example, each tie marked with 1909 dating nail denotes square sawed hard maple tie treated with creosote. Ties with 1916 dating nail are hard maple ties treated with mixture, part creosote and part crude oil, etc. etc.

BB:h
cc Mr. S. A. Erickson

Brainerd, Minn., Sept. 26th, 1934.

Mr. Bernard Blum:

The attached will explain the object of the dating nails referred to in our conversation yesterday about Record Test Track No. 8-B, near Plateau on the Rocky Mountain Division.

This is one of our regular established test tracks and no annual inspection has ever been missed. This years inspection was made on June 23 by myself and Mr. Willcutt of Paradise. Roadmaster Cook was advised accordingly. It is an awkward location to reach ordinarily, without considerable formality and previous arrangement, so this year Mr. Willcutt drove his car over the new highway from Paradise via St.Regis. Usually I am accompanied on test track inspection by a Roadmaster or Asst. Engineer, sometimes by a Division Superintendent. The Roadmaster is always advised but on occasions I have dispensed with some of the formality of the instructions, which require the presence of the Division Superintendent, Roadmaster, Section Foreman and a representative of the Engineering Department.

I believe it is well to have these instructions to keep up interest of all concerned, but in my estimation, since the tracks are now well established, we would be going to extremes if we should demand the presence of all of these gentlemen on each annual inspection.

Gen'l Supt. Timber Preservation.

L

enc

c o p y

Brainerd, Minn., Aug. 5th, 1922.

Mr. F. J. Taylor,
District Engineer,
Livingston, Mont.

Dear Sir:

We forwarded yesterday, as the invoices show, 772 ties to Plateau, for the Phileman Line Change. The Chief Engineer authorized the shipment of treated ties and White Oak ties to be placed in this line change for the tie test, and we have marked the ties in each car as follows:

NP 16770 - 100 #3 Square Sawed Hard Maple Ties treated with Creosote, loaded in east end of car and each tie marked with one 1909 dating nail.
100 #3 Square Sawed & Hewed Birch Ties treated with Creosote, loaded in west end of car and each tie marked with one 1920 dating nail.
100 #3 Hewed Red Oak Ties treated with Creosote, loaded in piles one each side of doorway and each tie marked with one 1918 dating nail.

NP 91337 - 100 #3 Hard Maple Ties treated with Mixture (Creosote-Crude Oil), loaded in east end of car and each tie marked with one 1916 dating nail.
100 #3 Red Oak Ties treated with Mixture (Creosote-Crude Oil), loaded in west end of car and each tie marked with one 1917 dating nail.

NP 16738 - 122 #1-2-3 Untreated White Oak Ties (39 #1, 15 #2 & 68 #3) loaded in both ends of car on top of treated ties in car and each tie marked with two 1920 dating nails.
50 #3 Rock Elm Ties treated with Mixture (Creosote-Crude Oil) loaded in east end of car and each tie marked with three 1920 dating nails.
100 #3 Birch Ties Treated with Mixture (Creosote-Crude Oil) loaded in west end of car and each tie marked with one 1913 dating nail.

This will enable those taking the ties from the cars to keep each species together, so that they can be laid in the track continuously, each species of timber by itself.

We placed the dating nails in simply to designate the different kinds of timber. They have no other significance.

We are sending Mr. Bartles, Superintendent, at Missoula, copper plates which should be placed on these ties when they are laid in track, beginning with No. 1 at the East end and consecutively placing the numbers to the West end.

I will talk with the Roadmasters personally about this bunch of ties, making it plain to them how they should be laid in the track.

Yours truly,

Supt. T. P. & T. T. Plants.

Cy.-Mr. F.R.Bartles,
Mr.H.E.Stevens,
Mr.B. Blum.

(2837)

Burlington Route

CHICAGO, BURLINGTON & QUINCY RAILROAD COMPANY

Burlington Building,
547 West Jackson Boulevard, Chicago, Ill.
OFFICE OF VICE-PRESIDENT, OPERATING DEPARTMENT.

3659 B

In Reply Please Refer to

File No.

Chicago, Jan. 14, 1930

Mr. Bernard Blum,
Chief Engineer,
Northern Pacific Ry.,
St Paul, Minn.

Dear Sir:

I wish to acknowledge your letter of Dec. 30th and thank you for the information given in regard to use of dating nails on the Northern Pacific.

I also have your personal letter of Jan. 7th and was very much interested in the comments you made. I think as you do that the psychological effecton section foremen may work both ways. We thought of that and discussed it before deciding to again use dating nails. It is of course not possible to keep a record of all ties renewed on a large system. We think, however, the use of dating nails will be more than justified by information that we will be able to develop in a general way.

A number of times within the past few years we have had an occassion to argue how long certain ties had been in track. I am quite sure had these ties carried dating nails the information would have been worth while.

Yours truly,

H R Clarke

B

H. R. Clarke
General Inspector
Permanent Way.

(1001)

CHICAGO, BURLINGTON & QUINCY RAILROAD COMPANY

Burlington Building,
547 West Jackson Boulevard, Chicago, Ill.
Office of Vice-President, Operating Department.

In Reply Please Refer to
File No.

Chicago, Jan. 14, 1931

Mr. Bernard Flum,
Chief Engineer,
Northern Pacific Ry.,
St. Paul, Minn.

Dear Sir:

I wish to acknowledge your letter of Dec. 12th and thank you for the information given in regard to use of dearing mills on the Northern Pacific.

I also have your personal letter of Jan. 7th and was very much interested in the comments you made. I think we can do that the new electrical attention section foreman may work with us. We shall be glad to have an illustrated article dealing to again use dearing mills. It is not desirable to keep a record of all ties removed on a large system. We think, however, the use of dearing mills will be more than justified by information that we will be able to develop in a general way.

A number of times within the past few years we have had an occasion to argue how long certain ties had been in track. We are quite sure that some ties carried dating mills the information would have in a short while.

Yours truly,

J. J. Hayes
General Inspector
Transportation.

Dating Nails.

Chicago, Milwaukee, St. Paul and Pacific Railroad Company

Office of Engineer Maintenance of Way
Union Station

W. H. PENFIELD
ENGINEER MAINTENANCE OF WAY

Chicago, January 8th, 1931.

Mr. Blum

3659 "B"

B

Mr. H. R. Clarke
General Inspector of Permanent Way
C.B.& Q.R.R.Co.
Chicago, Illinois

Dear Sir:-

Replying to your letter of December 23 relative to the use of dating nails in cross ties:

We used dating nails in treated ties from 1900 to 1910, at which time the practice was discontinued, it being felt by our people that test track information was more reliable than any information that could be obtained from the use of dating nails. We resumed the practice of using dating nails in 1927, which was the year we started using oil-treated ties. We are extending the use of oil-treated ties to all lines as fast as we can afford it, and dating nails are inserted in all of these ties when they are bored and adzed at the treating plants before treatment. These nails are placed on the line side of the track about 10 inches from the end of tie, and in addition to the dating nails, ties are branded to show the year when they were treated and other information as to the rail section for which are framed.

I do not think it is practicable to keep an individual record of each cross tie but I do think there are so many other benefits to be derived from the use of dating nails that we can afford to use them. We have already received some very useful and interesting information from the ties that were installed in 1927 with these nails, and every day we encounter tie situations on various lines where it would be very desirable to know how long the tie had been in service and which can only be told by some permanent mark of this kind.

Mr. H. R. Clarke:

We hope eventually to extend the use of dating nails to all ties used on the system.

Since 1924 we have been keeping up an annual record of the number of cross ties used for renewals on each mile of main track and the kind of ties installed. The record also shows the kind of ties removed and the number of them. This was prefaced by an actual count of the number of ties on each mile and the section foreman who did the counting made as good an estimate as he could of the kind of ties on the mile. By this I mean whether the ties were hard or soft wood, zinc treated, untreated, cedar or fir. We now have six years of this record and it brings out many matters of interest.

Yours truly,

W. H. Penfield

Engineer Maintenance of Way.

WHP:

cc - Messrs:
G. W. Harris
J. A. Peabody
W. H. Petersen
L. H. Bond
Bernard Blum
J. R. W. Davis
S. H. Osborne

3659 B

January 7, 1931.

- Personal -

Mr. H. R. Clarke,
Gen. Insp. Permanent Way,
C. B. & Q. R.R.,
Chicago, Illinois

Dear Mr. Clarke:

I have been considerably interested in the replies received to your questionnaire of December 23rd concerning the use of dating nails in ties. I note that practically all of the replies indicate that the various railroads have changed their practice from time to time.

Several of the railroads agree that there is no definite practical use to be derived from dating nails in all ties but state that there is a psychological effect on section foremen in that they are more careful about removing a treated tie from track that has not furnished the desired service. I am wondering if these men have thought any further about their replies. Is it not logical to assume that on the other hand a section foreman is just as likely to remove a treated tie from track where the dating nail shows it of a greater age than he thinks is proper to maintain a tie in track and consequently removed certain ties which, if left undisturbed, might have given a number of years additional service. I speak from experience when I tell you that I found on the Northern Pacific a great many ties removed simply because the dating nail showed the foremen how old the ties were.

I some times wonder of how much practical use these questionnaires are when you study the contradictory replies that are received.

Yours very truly,

BB h

THE CHICAGO, ROCK ISLAND AND PACIFIC RAILWAY COMPANY

ENGINEERING DEPARTMENT

LA SALLE STREET STATION

W. H. PETERSEN,
CHIEF ENGINEER
ROBERT H. FORD,
ASST. CHIEF ENGINEER
L. J. HUGHES,
ENGINEER MTCE. OF WAY-SYSTEM
I. L. SIMMONS,
BRIDGE ENGINEER
A. T. HAWK,
ENGINEER OF BUILDINGS
LEROY WYANT,
SIGNAL ENGINEER

CHICAGO, Jan. 5th, 1931.

File 12360.

Mr. H. R. Clarke,
Gen. Insp. Permanent Way,
C. B. & Q. Ry.,
547 N. Jackson Blvd.,
Chicago, Illinois.

Dear Sir:

Referring to your inquiry of Dec. 23rd, 1930, concerning use of dating nails in ties:

From 1908 to 1914 it was our practice to place dating nails in all ties inserted in track, including switch and bridge ties. At that time we endeavored to keep a record of all ties put in track as well as those removed from track. However, it was found that for various reasons it was not possible to secure correct report of ties inserted and removed from track. In 1914 we selected a track section on each Operating Division representative of the average conditions on the division and kept a careful record of ties inserted and removed from track on those test sections. During the period 1915 to 1929 the only ties marked with dating nails were those inserted in test sections.

Commencing in 1930 we resumed the practice of applying dating nails to all cross, switch, and bridge ties inserted in track. Our decision to resume this practice was based somewhat on the psychological effect on Section Foremen and other maintenance officials in that they will be more careful about removing a treated tie from track that has not given the expected service.

Yours very truly,

W H Petersen

cc - Mr. G. W. Harris, Chf. Engr., A.T.& S.F. Chicago,
Mr. L. H. Bond, E.M.W., Ill. Centr. Ry., Chicago
Mr. J.A. Peabody, E.M.W., C. & N. W. Ry., Chicago
Mr. W. H. Penfield, E.M.W., C.M.St.P.&P., Chicago
Mr. Bernard Blum, Chf. Engr., Nor. Pac. Ry., St. Paul.
Mr. J. R. W. Davis, Chf. Engr., Grt. Nor., St. Paul,
Mr. S. H. Osborne, EMW., Union Pacific Ry., Omaha.

THE CHICAGO, ROCK ISLAND AND PACIFIC RAILWAY COMPANY

ENGINEERING DEPARTMENT

LA SALLE STREET STATION

CHICAGO,

W. H. PETERSEN,
CHIEF ENGINEER
ROBERT H. FORD,
ASST. CHIEF ENGINEER
L. J. HUGHES,
ENGINEER MTCE. OF WAY-SYSTEM
I. L. SIMMONS,
BRIDGE ENGINEER
A. T. HAWK,
ENGINEER OF BUILDINGS
LEROY WYANT,
SIGNAL ENGINEER

3659 B

Form 1579

ILLINOIS CENTRAL SYSTEM

January 2, 1931. mmb-hb.

Gen. 4 39

Mr. H. R. Clarke, Genl. Inspector Permanent Way,
Chicago, Burlington & Quincy Railroad Company,
547 West Jackson Boulevard,
Chicago, Illinois.

Dear Sir:

Referring to yours of December 23, 1930, with reference to the use of dating nails in ties.

We have used tie dating nails for a good many years and at one time there was designated on each supervisor's territory a section on which all ties had dating nails applied as ties were installed. At the present time we have six tie test sections on the railroad selected with a view of getting effect from the climatic conditions as well as ballast and traffic conditions. The ties used on these sections are shipped from the treating plants with tie dating nails installed and we consider the use of these tie dating nails necessary to follow up the history of the tie.

In addition, we use tie dating nails in all of our switch ties and find that we are getting considerable benefit in being able to definitely establish the age of ties which have not given expected service.

Trusting that this will give you the information that you are after, I am

Yours very truly,

B.

H H Rand
Engineer Maintenance of Way.

cc - Mr. G. W. Harris, Ch. Engr., AT&SF, Chicago.
Mr. J. A. Peabody, Engr. of Mtce., C&NW, Chicago.
Mr. W. H. Petersen, Ch. Engr., CRI&P, Chicago.
Mr. W. H. Penfield, EMW, CMStP&P, Chicago.
Mr. Bernard Blum, Ch. Engr., Nor.Pac., St. Paul.
Mr. J. R. W. Davis, Ch. Engr., Grt.Nor., St. Paul.
Mr. S. H. Osborne, EMW, Union Pacific, Omaha.

The Atchison, Topeka and Santa Fe Railway Company

Railway Exchange, 80 East Jackson Boulevard, Chicago

G. W. HARRIS,
Chief Engineer System

R. B. BALL,
Asst. Chief Engineer System

3659 B

Chicago, January 2, 1931

42175

Mr. H. R. Clarke,
Gen. Insp. Permanent Way,
C. B. & Q. R.R.Co.,
Chicago, Illinois.

Dear Sir:

Referring to your letter of December 23rd, relative use of dating nails:

In 1901 we began the practice of using dating nails in all ties. An attempt was made to keep a record of every tie on the System, but this was found to be a big task and difficulty was encountered in having the local people date the ties, and at that time they did not seem to take much interest in same.

Therefore, in 1910 this practice was discontinued of dating every tie and changed to date and keep an exact record of one or more experimental sections on each division.

In the succeeding years the operating officials began to appreciate the value of the dating nails in every tie, and result was that beginning with 1921 we went back to our former practice of dating every tie when inserted in track and have experienced very little difficulty in having nails placed at the proper time. However, the former practice was changed somewhat, in that now we do not aim to keep a record of every tie, but only those on the experimental sections. However, the value of dating nails in every tie, is based on the psychological effect on the section-foremen and other maintenance officials and the opportunity to check the performance of special woods and special treatments as we see fit. We believe our present practice is well justified.

Yours truly,

(Signed) G. W. Harris

cc - Mr.J.A.Peabody,
Mr.W.H.Petersen
Mr.L.H.Bond
Mr.W.H.Penfield
Mr.Bernard Blum
Mr.J.R.W.Davis
Mr.S.H.Osborne.

B

The Atchison, Topeka and Santa Fe Railway Company

Railway Exchange, 80 East Jackson Boulevard, Chicago

G. W. HARRIS,
Chief Engineer System

R. E. BALL,
Asst. Chief Engineer System

Chicago, January 16, 1931

Mr. F. H. Clarke,
Gen. Insp. Permanent Way,
C. R. I. & P. Ry.,
Chicago, Illinois.

Dear Sir:

Referring to your letter of December 23rd, relative use of creosote ballast:

In 1921 we began the practice of using creosote ballast in all lines. An attempt was made to keep a record of every rail on the system, but this proved to be a big task and difficulty was encountered in having the local people make the reports, and so that plan was not carried out to the extent it should have been.

Inspectors in July 1929 reported that we had been using creosote ballast every place it was found necessary to do so, and we have been renewing of our more experimental sections on much original.

In the succeeding years the operating officials have been to appreciate the value of the creosote ballast in every way, and feel that we have obtained with it a material improvement in our terms of facilities of every kind. We have installed it on our lines in Texas, Oklahoma, Kansas, Missouri, Illinois and Iowa, and have experienced very little difficulty in getting it laid on the track. In fact, the operating officials have expressed themselves as being very well satisfied with the results obtained, and we feel that we are certain of a record of every rail, but only those on the experimental sections. However, the value of ballast is in every rail, is based on the physiological effect on the roadbed-forces and the maintenance of tracks and the economy to operating departments effected by the use of creosote ballast. We believe our present practice is well justified, as we see it.

Yours truly,

(Signed) G. W. Harris

cc - Mr. A. A. Raboy,
Mr. R. E. Ferrell
Mr. D. Ford
Mr. A. Arnwalid
Mr. Edward Hum
Mr. J. J. Davis
Mr. A. Osborne.

UNION PACIFIC SYSTEM

UNION PACIFIC RAILROAD COMPANY

THE ST. JOSEPH AND GRAND ISLAND RAILWAY COMPANY

OPERATING DEPARTMENT

3689 B

G-20

S. H. OSBORNE,
ENGINEER MAINTENANCE OF WAY

1416 DODGE STREET
OMAHA, NEBRASKA

December 31, 1930.

Mr. H. R. Clarke,
General Inspr., Permanent Way,
C. B. & Q. Railroad,
Chicago, Ill.

Dear Sir: -

Replying to your joint letter of Dec. 23rd, subject - Tie Dating Nails:

We have used tie dating nails on the Union Pacific possibly thirty years. While using zinc treated ties, the dating nail was applied on the end of each tie ten inches from base of rail on the line side of track. With the use of creosote oil ties, the nails are applied on the inside of and ten inches from base of rail, on the line side of track.

The necessity for tie dating nails is, in my judgement, problematical and largely a matter of opinion. If it were possible to maintain an accurate record of the life of treated ties without the use of tie dating nails, I would be in favor of discontinuing their use, but as they are considered helpful to the Section Foremen in reporting the number of each year's ties coming out of track in renewals, account exhausted life and other causes, dating nails for this purpose alone are valuable. Also, we brand our ties with year-treated, at our Timber Treating Plants, but in worn or rotten ties this brand may be obliterated.

We also maintain test sections, records and reports of which are valuable, but to determine the number of each year's treated ties in track at any location dating nails are valuable assistance in getting this information, as well as for test sections.

S.H.Osborne.

cc: G.W.Harris, Ch.Engr.,AT&SF, Chicago,
J.A.Peabody,Eng.of Mtce, C&NW, Chicago,
W.H.Peterson, Ch.Eng.,CRIP, Chicago,
L.H.Bond, EMW, Ill.Central RR,Chicago,
W.H.Penfield, EMW, CMSTP&P, Chicago,
Bernard Blum, Ch.Eng., North.Pac.,St.Paul,
J.R.W.Davis, Ch.Engr.,Great Nor.,St. Paul.

B

#1.

GREAT NORTHERN RAILWAY COMPANY

OFFICE OF THE CHIEF ENGINEER

3659 "B"

J. R. W. DAVIS,
CHIEF ENGINEER

ST. PAUL, MINN.

December 31, 1930

S-2997

Mr. H R Clarke,
General Inspector Permanent Way,
Chicago, Burlington & Quincy Railroad,
Chicago, Illinois

B

Dear Sir:

Referring to your letter December 23rd, with reference to use of tie dating nails.

Great Northern applied nails to all renewal ties from 1905 to 1909, inclusive, for the purpose of keeping a tie life record, a plan that was found to be unsatisfactory and therefore was discontinued in 1910. The record thus obtained having proved unreliable, certain stretches of track, designated "test track" were set aside for the purpose of continuing the tie life record, and use of dating nails limited to these sections.

In 1924 it was decided to resume the use of dating nails over the entire System, largely because of the psychological effect such use might have on trackmen in deciding on what ties to replace, a practice that is still in effect. This extension of the use of dating nails is not for the purpose of keeping a record.

Yours truly,

J. R. W. Davis

cc-Mr. G W Harris
J A Peabody
W H Peterson
L H Bond

Mr. W H Penfield
Bernard Blum
S H Osborne

3659-B

December 30, 1930.

Mr. H. H. Clarke,
Gen. Inspector Per. Way,
C. B. & Q. RR Co.,
Chicago, Illinois

Dear Sir:

Your joint letter of the 23rd in regard to using dating nails in ties:

From 1907 to 1919 we placed dating nails in each tie installed. The practice was discontinued in the spring of 1920 as it did not appear that we were getting sufficient benefit to justify the expense. Also it developed that in some cases tie renewals were being made on the basis of time in track rather than the actual condition of each tie.

We have installed test tracks at various places along the line, totalling 16, where the tie conditions and service are inspected and recorded annually. Each test section covers 600 lineal feet of track and each tie is marked with a copper plate number. Each tie that is removed in track is recorded individually for the test tracks and it is our opinion that we are getting far better information in that way than trying to keep track of millions of ties throughout the system. It is my opinion that it is an impractical matter to record the history of all ties on a large railroad.

Yours truly,

cc Messrs: C.W. Harris
J.A. Peabody
W.H. Petersen
L.H. Bond
W.H. Penfield
J.H.W. Davis
S.H. Osborne

Chicago and North Western Railway Company

ENGINEER OF MAINTENANCE

[redacted] J. A. PEABODY
ENGINEER OF MAINTENANCE
J. A. S. REDFIELD
ASST. ENGINEER OF MAINTENANCE
F. W. HILLMAN
ASST. ENGINEER OF MAINTENANCE

3659 B

CHICAGO

December 29, 1930

Mr. H. R. Clarke,
Genl. Inspr. Permanent Way,
C. B. & Q. R. R. Co.,
547 W. Jackson Blvd.,
Chicago, Ill.

Dear Sir:

Responding to yours of the 23rd inst. relative to use of tie dating nails:

We have decided that the only justification for the use of such nails, other than in sections where definite tests are being conducted, is the psychological effect on the men in that they will be more careful about deciding to remove a tie which has not given expected service. Therefore, we use them to a limited extent on some of our important main lines.

Yours very truly,

J A Peabody

Engineer of Maintenance.

cc-Mr. G. W. Harris, Ch. Engr. AT&SF, Chicago.
Mr. W. H. Petersen, Ch. Engr., CRI&P, Chicago.
Mr. L. H. Bond, EMW, Ill. Cent. RR. Chicago.
Mr. W. H. Penfield, EMW, CMSTP&P, Chicago.
Mr. Bernard Blum, Ch. Engr., Nor. Pac., St. Paul.
Mr. J.R.W.Davis, Ch. Engr., Grt. Nor., St. Paul.
Mr. S. H. Osborne, EMW, Union Pacific, Omaha.

FWH:J

B.

(2837-A)

Burlington Route

CHICAGO, BURLINGTON & QUINCY RAILROAD COMPANY

Burlington Building,
547 West Jackson Boulevard, Chicago, Ill.
OFFICE OF VICE-PRESIDENT, OPERATING DEPARTMENT.

Chicago, December 23, 1930.

Mr. G. W. Harris, Ch. Engr., ATSF, Chicago.
Mr. J. A. Peabody, Engr. of Mtce., C&NW, Chicago.
Mr. W. H. Petersen, Ch. Engr., CRI&P, Chicago.
Mr. L. H. Bond, EMW, Ill. Cent.RR, Chicago.
Mr. W. H. Penfield, EMW, CMStP&P, Chicago.
Mr. Bernard Blum, Ch. Engr., Nor.Pac., St. Paul.
Mr. J.R.W.Davis, Ch. Engr., Grt. Nor., St. Paul.
Mr. S. H. Osborne, EMW, Union Pacific, Omaha.

Gentlemen:

A number of years ago we used dating nails in ties, this practice being followed for several years. It was then discontinued, probably as an economy measure.

About three years ago the matter was again considered and the use of dating nails was resumed. Question has now been raised as to whether or not the use of dating nails is justified, and whether or not it is worth the expense involved. To assist us in reaching a conclusion regarding this, would appreciate advice from you as to whether or not it is your practice to use dating nails and if so, are they applied in each tie or only in selected sections. How long have dating nails been used continuously and if dating nails are used, will be glad to have advice as to the advantage you think there is in such use.

Yours very truly,

H R Clarke

H. R. Clarke,
General Inspector
Permanent Way

5242

1/30/19

365 KS

3659 B

Brainerd, Minn., July 19, 1929.

Mr. Bernard Blum,
Chief Engineer,
St. Paul, Minn.

B

Dear Sir:

Replying to your letter of 18th in regard to the dating nails referred to in my letter of June 28th.

As I told Mr. Yager, if you consider the Hemlock ties in our Test Tracks are sufficient for test purposes I agree with you that the placing of dating nails in ties scattered throughout the track is not a very good one. We have renewed all ties removed from test tracks west of Spokane with Hemlock ties, so that we now have about 200 in various tracks, besides 1,673 continuously in one track at Missoula.

May tell you what started this matter. While at Seattle some time ago Mr. Bartles, the Roadmasters, Mr. Hopkins and myself got talking about Hemlock ties and it was suggested by the people on the West end that we use date nails in these ties so as to determine what life we may receive from them. I thought that 80,000, which is the quota we are to receive, I understand, for this season, would be quite a large number of date nails and suggested that we cut that down to 10,000. After considerable talk this was agreed upon and in line with this conversation I wrote you suggesting the use of these date nails on June 28th.

I do not think the Superintendent or anybody else will feel bad about not getting any dating nails so far as that goes, and since I presume the number we have in the Test Tracks are satisfactory for test purposes, suggest that the matter be dropped and the result of our Record Test Tracks be used as a comparison as to the value of the various species of timber. Personally I think that a Hemlock tie is just as good a tie as we get on the West end and since it takes treatment better than Fir or Larch that is also in their favor.

Yours truly,

Supt. T. P. & T. T. Plants.

3659 B

Saint Paul, July 18, 1929.

Mr. Andrew Gibson:

Your letter June 28 recommending that we obtain 1929 dating nails to cover 10,000 Hemlock ties on the Tacoma Division and the same number on the Seattle Division:

I think you know that I have never been enthusiastic about the haphazard springling of tie dating nails. It is my understanding that you have placed a considerable number of these hemlock ties, treated at the Colman Plant, in the test tracks on the Seattle, Tacoma and Pasco Divisions. Do you not think that you will get all of the information you desire with respect to these ties from these test tracks. It would be a difficult matter to pick out ties regularly placed, and unless they were followed up carefully, there would be no object in getting the nails.

Personally I feel that your present system of the test tracks is the only one whereby we will get any real data of value.

Chief Engineer.

RB h

3659-B

St. Paul, Minn., July 17, 1929

Mr. Bernard Blum:

Referring to the attached from Mr. Gibson relative to Hemlock ties on the Coast received with your letter of the 5th.

Mr. Gibson advises me that the renewals made this year in the test track on the Seattle, Tacoma and Pasco Divisions were made with Hemlock ties from the Colman plant at Seattle in the number of several hundred. It seems to me that this would give us a good opportunity for studying their service life under favorable conditions of observation. I think it is conceded that service life observation made in our test track is more reliable than that obtained from other sources.

If we were to furnish dating nails for 10,000 ties each on the Tacoma and Seattle Divisions as suggested by Mr. Gibson we would not be in a good position to follow the life of these ties unless we were able in some manner to include them in a test section observation. They would undoubtedly be so widely scattered that they would be difficult to follow.

LY:wp

enc

L Layer
Assistant Chief Engineer

3659 B

Saint Paul, July 5, 1925.

Mr. L. Yager -

Please note attached from Mr. Gibson recommending that we obtain dating nails so as to mark about 10000 Hemlock ties on each of the Tacoma and Seattle Divisions. What do you think of this?

I believe it would be as well to insert several of these ties in each of the regular test tracks for detail observation. We would then have definite and accurate record of those ties.

I am inclined to think that marking 20000 of them in regular service would not amount to a great deal.

Chief Engineer.

BB h

Brainerd, Minn., June 28, 1929.

Mr. Bernard Blum,
Chief Engineer,
St. Paul, Minn.

Dear Sir:

We have made experiments in the use of hemlock ties in a small way in our Record Test Tracks and found that they give just as good service as larch and Douglas Fir, but these tests were not on a very large scale and we now have 75,000 hemlocks in the yard at Seattle and by the time our complement of ties coming in to that plant is completed we will have in the neighborhood of 80,000.

I would suggest that we obtain date nails so that about 10,000 hemlock ties on each of the Tacoma and Seattle Divisions could be marked so as to get a better idea of how hemlock ties last in that western territory. All other ties used there are Douglas Fir, larch and yellow pine and we know what service they are giving, but hemlock, of course, is more or less of an experiment and I think it would be of considerable value to be perfectly sure that we are making no mistake in going into the hemlock tie usage so heavily.

I am satisfied that they will give quite as good service as any ties we use on the Coast, but as a matter of safety and assurance that these ties are equal to the other species mentioned I would recommend the furnishing of sufficient date nails to mark at least 10,000 for each division.

If you approve of this and will advise, we will prepare a requisition to cover the date nails.

Yours truly,

Arnold Erickson

Supt. T. P. & T. T. Plants.

3659 B

Oct. 21, 1924.

C. G. Hussey & Company,

Pittsburgh, Pa.

Gentlemen:

Your letter of the 15th with samples of copper tie dating nails.

These are certainly an improvement over the clumsy galvanized nails which we formerly used for that purpose.

We abandoned the use of these nails sometime ago and are now using record test tracks for obtaining information on average life of ties instead of using dating nails.

Yours truly,

Chief Engineer.

HES-ar

Brainerd, Minn., Oct. 30th, 1924.

Mr. H. E. Stevens,
Chief Engineer,
St.Paul, Minn.

Dear Sir:

Replying to your letter of 18th and returning samples of copper Tie Dating Nails which C. G. Hussey & Company sent you.

We do not need any of these nails on any of our test tracks. We use copper plates for marking all the ties in the test tracks and have been using any kind of a nail we could find that would hold these copper plates in position.

May say, however, that the copper nail sent you is very much lighter than the old dating nail that we formerly used. Our old nails were 2½" in length under the head and ¼" in diameter; and the Hussey nail is 1¼" under the head and 3/16" in diameter and I believe it would answer the purpose just as well as the old type if we were in the market for any. Our test tracks have so many figures on that a date nail would be of little or no value, since we have a record of each tie in these tracks.

Yours truly,

Supt. T. P. & T. T. Plants.

enc

3659 B

Saint Paul, October 18, 1924.

Mr. Andrew Gibson:

I am attaching letter from C. G. Hussey & Company with samples of copper tie dating nails.

Will you please advise if you need any of these nails or similar marking nails.

Chief Engineer.

HES-ar

Encl.

C. G. Hussey & Co.

COPPER IN SHEETS
PLATES AND ROLLS
CRIMPED COPPER
COPPER BOTTOMS
CONDUCTOR PIPE
EAVES TROUGH

PITTSBURGH COPPER & BRASS ROLLING MILLS

Pittsburgh, Pa.

RIVETS
NAILS
GASKETS
FERRULES
SOLDERING COPPERS
ELBOWS AND SHOES

October 15th,
1924

Northern Pacific Railway Company,
St. Paul, Minn.

Attention: Mr. H.E. Stevens,
Chief Engineer

Dear Sir:

We are attaching hereto samples of our copper wire tie dating nails. Wish to advise that these nails will average from 75 to 80 pieces to the pound. Todays price is 23¢ per pound and we pay the freight on shipments of 300 pounds or more.

For the purpose for which a tie nail is used, the copper nail has no equal. It will outlast any wood into which it is driven and on account of its color, can be easily found at any time.

Might mention the fact that the lumber companies, supplying bridge timbers and creosoted ties, use the copper dating nails extensively. On account of the number you get to the pound, we think that you will find them considerably cheaper per piece than the galvanized nail.

We are in hopes that you will give the copper wire nails a trial and thanking you in advance, we remain,

Very truly,

C. G. HUSSEY & CO.

B F Kilroy
SECRETARY

BFK/E

COPY

3659 B

Saint Paul, July 28, 1924.

Mr. Andrew Gibson:

You have copy of Mr. Yager's letter of the 26th about Everhot Company's tool for branding ties, but I am not sure that you have copy of the details of this device. I am therefore enclosing you my file which I wish you would return after it has served your purpose.

I agree with Mr. Yager that it would be well to order one of these for experimental purposes.

Chief Engineer.

HES-ar

encl.

see 5758 A

mje

3659 B

Saint Paul, January 13th, 1923.

Mr. R. J. Elliott:

Your letter of December 18th, enclosing samples of tie dating nails submitted by the Colorado Fuel & Iron Company.

As you know, we no longer use the tie dating nail in tie replacements, but we do from time to time order small amounts of dating nails for tests or other purposes.

Considering the small amount of nails used there would be but very small net saving effected in changing types, and the new nail is open to the objection that raised letters might be defaced in driving nails in hardwood ties, and it naturally would not have the lasting qualities of the heavier nail.

We will keep the C.F. & I. nail in mind in case we have occasion to secure record marking in locations where this nail would be suitable.

Chief Engineer.

HES-ar

Saint Paul, January 12, 1923

Mr H E Stevens,
Chief Engineer

Referring to your letter of December 22nd, relative to tie date nail.

The sample submitted by the C F & I is considerably cheaper, and if it is sufficiently sturdy to permit driving into hardwood ties, it should serve the purpose. The raised letters may be subject to more deformation in the driving than the depressed type on the larger nail. Perhaps it would be well to have Mr Gibson make a trial of driving a few of these nails into hardwood timber.

It seems to me that the smaller nail has also greater possibilities of use for other purposes for such as may be left over after the dated year for which they are made.

Yours truly,

LY-z

Cy to: Mr Andrew Gibson
Mr Bernard Blum

St.Paul, December 30th, 1922.

Mr. H. E. Stevens,
Chief Engineer.

Your joint letter of the 22nd about new type of tie dating nail submitted by the Colorado Fuel & Iron Company.

It would not seem as though the smaller nail would last as long as the old style nail although I have never noticed any deterioration in the old dating nail. Possibly the new type would serve our purpose although there might be a tendency for it to fall out when the tie got old and rotten. The outline of the figure seems a little clearer but the head is quite thin.

If we were using great quantities of these nails, it might be worth while saving about two-thirds the cost but as long as it is an unimportant item at the present time, I do not think that the cost amounts to very much. Under the circumstances I do not see very much benefit to be derived in taking the cheaper nail. We do know that the larger nail lasts and we would be safe in sticking to it.

Yours truly,

Bernard Blum

Engr. Mtce. of Way.

BB-ml

Brainerd, Minn., Dec. 27th, 1922.

Mr. H. E. Stevens,
Chief Engineer,
St.Paul, Minn.

Dear Sir:

Your letter of December 22nd, enclosing sample of the old type of tie dating nail and the new type submitted by the Colorado Fuel & Iron Company, to hand.

The old type of dating nail, I think was entirely too heavy, but in my opinion it is a better nail than the new one, for the reason that the figures are depressed in the nail and the C.F.& I. Company's nail they are raised. This, I am very much afraid, will be damaged while driving into the tie.

You know how section men are when driving these nails. They hammer them down with a pick or a hammer or any old thing they can get hold of; and if the letters were pressed into the head of the nail instead of raised I think it would be a very much better nail than the old type. That is the only criticism I would have to make on the new nail, the possibility of damaging the letters on the head when driving.

Yours truly,

Supt. T.P. & T.T. Plants.

3659 B H1

Saint Paul, December 22, 1923.

Mr. A. Gibson,
Mr. L. Yager,
Mr. Bernard Blum.

I am attaching one sample each of our old type of tie dating nail, and a new type submitted by the Colorado Fuel & Iron Company. The C.F. & I. nail cost $6.84½ cwt. f.o.b. Laurel and run 78 to the pound. The old standard nail costs $6.342 cwt. f.o.b. St. Paul and run 37 to the pound.

Although we no longer use the tie dating nails as standard, we do occasionally use them for test purposes, and I would like to have your opinion as to the advisability of using the new nail offered by the C.F. & I. Company.

Chief Engineer.

HES-ar

Encl.

St. Paul, Minnesota.

Dec. 18th, 1922.

Desk 1.

Mr. H. E. Stevens,

Chief Engineer.

Dear Sir:-

I am sending you with this letter samples of Tie Dating Nails submitted by the Colorado Fuel & Iron Company, also sample of our present Standard. The Colordao nails are offered at 6.84½ cwt. f.o.b. Laurel and are said to run 78 per pound, while our standard nails runs 27 pcs. per pound and cost 6.342 cwt. f.o.b. St. Paul.

Will you please have these two nails considered and let me have the benefit of your recommendation as to which one you would prefer and most economical for our service?

Yourstruly,

R J Stevens

Purchasing Agent.

RJE/MR

Encl.

St. Paul, Minnesota,

Dec. 14th, 1922.

Desk 1.

Mr. H. I. Stevens,

Chief Engineer,

Dear Sir:-

I am sending you with this letter samples of Tie Plating Nails submitted by the Colorado Fuel & Iron Company, also sample of our present Standard. The Colorado nails are offered at 6.64½ cwt. f.o.b. Denver and are said to run 76 per pound, while our standard nails run 71 per pound and cost 6.54½ cwt. f.o.b. St. Paul.

Will you please have these two nails co-ordinated and let me have the benefit of your recommendation as to which one you would prefer and most economical for our service?

Yours truly,

Purchasing Agent.

MR/MR

Encl.

3659 B

Saint Paul, January 21, 1932.

Mr. C. L. Nichols:

Mr. E. C. Blanchard:

Apparently the Superintendents have not been instructed as to the discontinuance of the use of 1930 tie dating nails which were ordered for the purpose of marking the first installations of mixture treated ties.

These nails were installed in the ties placed in 1930 and on instructions from this office the placing of the nails was continued in ties which were placed in track in 1931 to the extent of using up the available stock of nails.

This stock has now been exhausted and practice of placing 1930 dating nails, or nails of any other date, in mixture treated ties will be discontinued.

Chief Engineer.

HES-ar

cc-Mr. A.Gibson.

Saint Paul, January 31, 1933.

Mr. T. F. Lowry,
Superintendent,
Minneapolis, Minn.

Dear Sir:-

Your letter of the 20th about use of 1920 tie dating nails on mixture treated ties.

The use of dating nails for mixture treated ties was discontinued on the completion of the 1931 tie replacements. These nails were furnished for the purpose of marking a reasonable number of the first mixture treated ties placed and it was not the intention to make this a standard practice.

Yours truly,

Chief Engineer.

HES-ar

cc-Mr. Nichols.
Mr. Kline.

3659 B

Minneapolis, Minn.,
January 20, 1922

Mr. H. E. Stevens,
Chief Engineer,
Saint Paul, Minn.

Referring to your letter of October 4th, 1920, with reference to the application of tie dating nails to all ties which have beentreated with a mixture of creosote and crude oil.

Will you please advise if it is the intention to apply dating nails to the ties that are being received for use in 1922 and 1923 and if so, whether or not 1920 dating nails should be used?

T Howard
Superintendent.

X

J659 B

Saint Paul, September 26th, 1921.

Mr. Andrew Gibson,

Supt. Tie Treating Plant,

Brainerd, Minn.

Dear Sir:-

Your letter of the 23rd about further use of tie dating nails for identification of mixture treated ties.

I agree with you that stock of ties now marked will be sufficient for test purposes and we will discontinue use of nails on exhaustion of present supply.

Yours truly,

Chief Engineer.

HES-ar

Brainerd, Minn., Sept. 23rd, 1931.

Mr. H. E. Stevens,
Chief Engineer,
St.Paul, Minn.

Dear Sir:

Referring to your letter of August 17th, enclosing copy of your letter to Mr. Nichols, in regard to 1930 tie dating nails.

Have just checked up the mixture treated ties and date nails furnished to each division, and for your information beg to hand you copy of statement.

I have asked St.Paul Div. to ship the two kegs that they have over to Mr. Albee at Tacoma; and the one keg over on the Minn. Divn. to the Puget Sound Div. Neither of these divisions received any nails as it was not known at the time that treated ties would be shipped to them; but since they received quite a few I thought it would be well to have as many nails as are available shipped to them in order that some idea could be obtained of how the mixture treatment holds up on the Pacific Coast.

This is all the dating nails that were ordered. In order to place a date nail in each mixture treated tie shipped to divisions, it would be necessary for us to order 356 additional kegs. If you desire that this be done I will make requisition for same. However, it seems to me that the large number we now have will give a fairly good record of the difference, if any, between the mixture treatment and the straight creosote.

Yours truly,

Supt. T. P. & T. T. Plants.

enc

Mixture Treated Ties Shipped to Divisions, and 1920 Date Nails to Divn. Superintendents to apply.

Division	Mixture Treated Ties	Date Nails		Short
		Kegs		
St. Paul	83,119	35	87,500	4,381 over
Lake Superior	148,952	59-1/3	148,333	619
Minnesota	105,886	43-1/3	108,333	2,447 over
Fargo	51,760	20½	51,250	510
Dakota	120,817	15	37,500	83,317
Yellowstone	172,510	26	65,000	107,510
Montana	273,876	51	127,500	146,376
Rocky Mountain	217,601	43	107,500	110,101
Idaho	114,033	24-1/3	60,833	53,200
Pasco	208,308	54½	136,250	72,058
Seattle	9,788	3	7,500	2,288
Puget Sound	15,752	1 keg to be shipped from Minn. Divn.		15,752
Tacoma	55,614	2 kegs to be shipped from St. Paul Divn.		55,614
Total	1,578,016	375 kegs	937,499	640,517

2500 Date Nails in each keg.

Brainerd, Minn.,
Sept. 23rd, 1921.

3659 B

Saint Paul, August 17th, 1921.

Mr. Andrew Gibson,
Supt. T.T. & T.P. Plants,
Brainerd, Minnesota.

Dear Sir:-

Please note the attached to Mr. Nichols.

In making your annual tie inspection I believe it would be well for you to make a few inquiries as to how these nails have been used and if the supply has been exhausted.

We ought to get the nails all in place before the end of this year.

In view of the fact that we are continuing the mixture treatment about all that can be said of this marking is that it will give us a reasonably fair sized bunch of ties well distributed over the different divisions for the purpose of keeping record of the difference, if any, between mixture and straight creosote treatment.

Yours truly,

Chief Engineer.

HES-ar

Encl.

Saint Paul, August 17th, 1921.

Mr. C. L. Nichols,

Assistant General Manager.

Your memorandum of the 16th about use of 1920 tie dating nails on mixture treated ties which were placed in the track in 1921.

The idea of using these nails was to give a distinguishing mark to mixture treated ties. The use of dating nails for other kinds of ties having been discontinued.

Any nails available on the Dakota or other divisions should be placed in the mixture treated ties regardless of whether the tie was placed in track in 1920 or 1921.

Chief Engineer.

HES-ar

cc-Mr. A.Gibson.

3659 B

Saint Paul, August 16, 1921.

Mr. H. E. Stevens:

Referring to your letter of October 4, 1920, about using tie dating nails on ties treated with a mixture of creosote and crude oil:

Mr. Berner has some of these nails on hand and also some of the ties treated with this mixture, which ties were not laid until this year. Should we use the 1920 dating nails on the ties which have been put in track this season?

C. Nichols

Assistant General Manager.

3659 B

April 6th, 1921.

Mr. Robert S. Stockton,
Superintendent Operation & Maintenance,
Canadian Pacific Railway Company,
Strathmore, Alberta.

Dear Sir:-

Your letter of the 24th of March, regarding tie dating nails. Samples of our standard nails enclosed.

We placed the dating nail in each tie installed from 1907 to 1919, inclusive. The practice was discontinued in the spring of 1920, as it did not appear that we were getting sufficient benefit from this information to justify the expense.

Instead of using tie dating nails in each tie, we have now installed test tracks on each operating district, where the tie conditions and service are inspected and recorded annually. Copy of our standard practice circular covering these test tracks next attached.

The use of tie dating nails enabled the roadmaster and sectionforeman to determine the age of any particular tie at the time it was taken from the track, but it developed that to attempt to keep records of each tie in this way would involve a volume of clerical work which would not be justified, and would be more or less unreliable. Consequently, no record was ever kept of the date of removal, and the dating nails did not serve the purpose for which they were originally intended.

The establishment of the test track will, we think, give a better criterion of the typical service of the ties than we were able to obtain from the dating nails.

Our stock of nails was furnished by the American Steel & Wire Company, prices varying in accordance with the metal market.

Yours truly,

Chief Engineer.

HES-ar

Encls.

St.Paul,Minn.,April 5th, 1921.

D- 662

Mr. H.E.Stevens,

Chief Engineer,

Dear Sir:-

Referring to your letter of March 28th, regarding tie dating nails. I am handing you, herewith, sample of tie dating nails such as we have been purchasing and wish to advise that these have always been purchased from the American Steel and Wire Co. by us.

Yours truly,

O.A.Wokefuch

General Storekeeper

M-o

X

Saint Paul, March 28th, 1921.

Mr. O. C. Wakefield,

General Storekeeper.

The Canadian Pacific are making inquiry regarding our tie dating nails.

Can you furnish two or three sample nails and advise names of concerns manufacturing these nails and approximate price of our last purchase and also the normal or pre-war prices.

Chief Engineer.

HES-ar

Canadian Pacific Railway Company

Department of Natural Resources.

OFFICE OF
CHIEF ENGINEER

~~Calgary,~~ Alberta,

Strathmore, March 24th 1921.

QUOTE FILE No S-211

OFFICE OF
CHIEF ENGINEER
MAR
28
1921
NOR. PAC. RY.
ST. PAUL, MINN.

Chief Engineer,
Pacific Railway,
St. Paul. Minn.

Dear Sir:-

I have noted at various times, the system used by your Railroad Company to mark the age of the ties used by means of a small tack with the number designating the year indicated on the tack head by raised numbers.

We have a large number of small timber structures in our irrigation canals, and I had thought it would be advisable to mark these as they were built in a similar way, and would be glad if you could give me the name of the manufacturer from whom you obtained the marking tacks and give me a general idea of how much they cost, so that perhaps we could obtain them from the same source as you do, but if this is not feasible, we might arrange to have them made here, and would like if you can, to have a sample and a copy of your specifications.

Thanking you for any information you can send me, I am,

Yours very truly,

Robert S Stockton

Superintendent Operation
and Maintenance.

RSS/MSR