#### EXPANSION OF ME

Effects of Temperature on Railway and Bridges. . .

An ordinary poker, such as in uses in our homes for stirring up the fire pn a Anter's night, if allowed is come to the temperature of boiling water or is pour one two-hundred-and-fifts ern of an inch longer than when at the freezing point. This does not meet much to the everyday man, but the expansion of metals due to beat is very important subject for the bridge engineer or the maintenance of was superintendent.

An accident occurred not long ago f England due to the expansion of rate t'be variation of temperature between winter and summer in many parts of the world is not more than 80 degrees & Yet this range of temperature to competent to produce a variation is the length of the rails of about the feet in the mile. The effect of this ex pausion if it is not allowed for in to track is usually to cause the outer ri on a curve to bulge out more than the foner one and thus throw the track out of game. The force exerted by un expanding rail is estimated at about 1,000 pounds for each degree of temperatury -Railway and Locomotive Engined

Movel Railroad Record.

The Grand Trunk Pacific raffw (Canada) has commenced a novel us dertaking whereby a record of the growth of the west so far as the rath way is a factor in its growth will be kept, says the Scientific American. The official photographers of the company have begun to work on the plan of the company, and towns along the the will be photographed, each photograph being duplicated yearly, so that a continuous record may be obtained and kep. of each individual town from the time it sprang up throughout the period of its growth. The record tept as expected to be of invaluable imporvarye in years to come.

#### GREAT ARTIFICIAL HARBOR.

Navai Port at Dever Is Larges. Are , of Open Sea Ever Incloses

The opening of Dover natal port marks the completion of the greates artificial harbor ever built entirery is the open sea. The scheme includes as extension of the admiralty pier for 2.000 feet, the formation of reclama tion works for the protection of the shore at the eastern end of Dover town extending in the direction of St Margaret's bay for 3,000 feet, a protecting arm extending from the eastern end of the reclamation for a distanco of 2.000 feet into the open son and an island breakwater approm marely parallel with the shore line end extending from the end of the admis raity pier extension on the west to the end of the easterly pier already refer red to. with wide entrance opening between the heads of the several break waters. If we include the eight acres which constitute the present commercial harbor there is inclosed to tiese works a total area at low water of 600 acres of deep water harbor co puble of doating the largest of modera battleships and ocean liners. This is the largest area of the open sea ever melosed by solid masonry protecting

Although that portion of the inches ing breakwaters which is visible high voter gives an impression their great length and of the wide ex stent of the harbor, it is a fact that tie visible masonry represents only amall proportion of the work actual's done. The total length of the set works is two and a half miles, two miles of which are in exceptionally deep water. Thus the 2.000 foot ex tension of the admiralty pier measure from the top of the parapet to oil foundation nearly 100 feet in heigia and the eastern pier has a total heigh a love foundations of eighty-seven feet The total width at the base of the golers is over fifty feet and at the ton forty paren feet six mehan

The fears which hars was expressed that this, like other wobors won From the open sea, might or subjected ge shealing up by drifting sand have and bean verified, the depth remaining practically constant,-Scientise Ameri

#### They have an 'Arbor.

en will was regretifue the lack of art seems displayed by als fellows when they place pun open space at the disspeed of the people. He pleaded etc. sevently for fountains, goldfish in orns. ....nipi pasina, tions and unicorus ib staren aud emerala green garden seats

"Whr." said he, in a splendid perowas me over west something homels and connerville- a little arthur here and there if a foraigner came to this sometry and unked to see one we're terset an arther worth showing Y m tacper fitage to

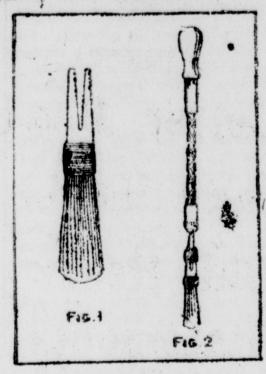
Puen agentid spake another member, who, prior to attaining the neight of was civic ambitions, and been a petty william the navy.

wet about Portiguouth 'arbor'"-Lor-On Susac

## 10 REMOVE THE DUST. USE A SCREW DRIVER

Pad a Paint Brush in the Ratuhet Driver And Try

Cleaning tufted upholstery work in one of the most difficult jobs imaginthe. The dust collects in the hollows and it is almost impossible to get it out by ordinary methods. This is especially true of leather furniture.



The ordinary dust brush must be tast aside and if absolute cleanliness s wanted a ratchet screw driver and paint brush must be used.

The candle of the paint brash is pit, about 11/2 nches being left on he brush. This is out V-shaped, as kliown in Fig. 1. This permits the brush to be attached o the blade of the screw driver with stout cord shown in Fig. 2 and the tuffed places are elegated out by simply pushing the brash ato them and whirling it with the latchet as the screw driver would be turned.

C: Survives Eightines die aving swallowed . . igh. I chi - oin, a three-months', and sit ten blionging to Elsie Kirney, of Watertown, M ?.. has been relieved of b.r trouble

The bin was awallowed head fors most, the head entering the stomach The sharp end could be felt under the jaw. A veterinarian cut a rmall hole in the cat's throat, worked the pin out as far as the need, swung it around sar' by bending it slightly, pushed it . t head first from the cat's mouth

#### Insurance Bill in Australia

The commonwealth ministry of New touth Wales is preparisg a national I surance bill on the sines of Lloyd Veorge's measure. Provision will be 1 ade for benefits for funerals, mater \* v sickness, accidents and unemploy

#### Beer or a Pension

"If a man was to save the price of · plat of beer a day from the time . en he is 18 years old, he would 1'de an old-age pension of \$3.40 a seck at 70." said Dr. Fraser, C the Veal devernment board, at the Nationa feriety, London.

#### KUNNISH TURK DEEDS

The following description given by an Armenian woman of the upper class, is typical of the fate suffered by hundreds of other bands. After describing the murder of every male over fifteen in a surprise attack by Kards, and how their horses, valulables and food were taken, she continues: "Very many women and girls tere carried off to the mountains. took the my sister, whose one prold they threw away. My t ther , ed until she could go no fulker, and dropped by the readside on a mountain top. We found on the roa many who had been in the previous batches; some women were among the killed with their husbands and sons. . . Many persons were bliged to start off on foot-and with that they could carry on their backs. tich persons naturally became so wesk that they fell behind, and were eyoneted and thrown into the river. At the Euphrates, the brigands and gendarmes threw into the river all the remaining children under fifteen

Of the districts assigned to the Armenians a Professor Hagopian writes: "These unhappy deported people have been chiefly deposited two places—one section of thom in a swampy region which has Lithert's remained uninhabited on account of the deadly malaria; while the remainder have been ac it to a st" more unhealthy place in the direction of the Persian Gulf, that "Oh, we 'aven't, 'even't we? sAnd is, Der-el-Zor, so bad that they have begged to be sent to the awamps, but helf neiltion has not been granted."

## FYERY ROYAL HONOR CARRIES A NUMBER

Thus Precedence in Applanting Safara Royal Porsonages is Always Secomments at The

Company of In the traine Klagdour all matters al precedence before Royalty are carebilly servied, and nothing is left to thance. In fact, each person who bears a title, or occupies a position entitling him to any procedence at all, has a number snowing tis exact posttion in the scale of reidive precedence According to Last, Book, Larg Decies number is G.126, walk blis porged's will as a marie of that however

I nombers preficed se var.ua I men, though indicaples, the letad. ation of those changed to preced I ce, do not show the tectual a mortes position of each. Thus Lora Occies sumber of 13,126 does not mean that there are 13,125 persons of higher tank than his. Nor does Mr. Borde is 1 mber of 18,336 persons of higher rock than his. What is signified is bet they belong respectively to eas ses thi seen and eighteen-Lord Decies as a Baron, to class thirteen, and Mr Borden, as a Privy Councillor, to class eighteen-in the scale of precedence, called, for convenience, 13,000 and 18,000 respectively, and that the peno. from which they derive pre tedence are respectively 126th and \$37th in order of sentority in the own degrees. The numbers profiler to each name, in fact, combine two

oir Wilfrid Laurier's number to 18.1 234 higher Gy than haf of de ( .. Iniste .. For hough both ar I too eighteen'h class, as Privy Conn 1 .cls-this class comprises an gara si the Garter, Knights of St. Patrick and Privy Councillors-Sir Wilfria Lucier's number is above Mr 3 r la's for the reason that the former s created a Privy Councillor : 1 17, and the datter not and 1911 \$ 4 the Prime Minister of Canada sent tank a small demonstrate of i members of "The Most Houngabe 1 ty Conneil of Great Britale" tha te and the leader of the Oppost .c. Wiffeld Laurier filt is true, as a M.O. or Koffat Crand Cross of - Weheel and St George, is entire

at . ace in the scale of pracedette. an one very much lower down that. that which his Prive Councillors'. .. · fore alm-nie; in fact, who me Brimber 27.060, insecod of 18,113.

Sir Wilfrid Laprier is the only Can idian G.C.M G. Bat there are quite s few K.C.M.C.'s. or Knight Com canders of St. Wichael and St. George e lose order of saighthood entitle. I m toos clace in the thirdeth chas the the scale of precedence. This 1 Frederick Borden a number 50 104, 1 ... illiam Makack is number 30,295 1 Allen Aylesworth is number 30,416, 1 Joseph Pere is number 20,444 Sir 1 M. Gibson is number 30,443, Sir dword Roblin is number 30,450. Sir 1 and McBride is number 30,451, and n. Canadian knights bachelors b almost like the sands of the seare for multifude. And we have a I te our fair share of them in Toron to. But the knights bachelors are not very high up in the scale of prece. rince, theirs forming the 33rd class. rad, in fact, they are as unmerous 1 at they overflow into the 34th.

Among other numbers are the fol-I wing: Sir Thomas Shaughussey, 48.572: Sir Heary Pellati, 83.889 Sir William Mordiner Chark, 85,004, Sir Ilmund Osier, 34,474; Sir Gierbolme I deonbridge, 34,066; Bir Edin d Walker, 34,528; Sir Lynna hi in 30" 1. 44.811; Sir Willam M. Keuzie. 84,263, toa Str Doneld Mann two pung bers below his brother railway mas

Housing Poultry Machine

There is no doubt that poultry buse sould of concrete woulf, is ex Pale it winter quarters, but we should sei. wing the inside of the house ther athed and plastered or double illed. Houses built entirely of humr and double walled, with beavy hing paper between the walls, cur inade just as comfortable, and are ter liked by the majority of poulmen, than houses built of any other y .. erial.

Actor Loves Criminology it is curious what hobbies some acpors have. That of Mr. H. E. frying, 1 be instance, is criminology, and one 1. him at every notable crimal trosecution. He was regular in at lendance at Bow Street when the case is by

The King gave 2,000 pheasants to ailitery during three mouths

#### THE DISPATCH.

Piplished by The Estate of Charles Appleby. K. . Business Manage Eubscription \$1.00 per year, in advance united States Subscription \$1.50 per year. in advance.

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#### INDIANS HAD WIRELESS

Bystem of Grude Instruments Worked

by Amazen Natives The Catuquinaru Indians, in the valby of the Amazon, have long in a a P | fors telegraphic system whit enab s them to communicate with jach her. The machine consists of a holw piece of hard palmwood filled with od, rubber, pieces of wood and hide. and fixed in a socket of sand, hide, resin and rubber. This is struck with a club of wood coated with rubber and

One of these instruments is usually hidden in each habitation or malocca and the meloceas are shout a mile distant one from the other, and all on a direct line north and south. The instruments are in tune with each other, and, when struck with a olab, the neighboring ones to the north and south, if not above a mile distant. respond to or echo the blow. To this an indian answers by striking the instrument in the malores with which it is desired to communicate, which Jan. 2nd.-14i. how in turn is echoed by the instrue ont originally struck. Each malocco Town series of signals.

### 31. ET NOISES IN PENIN andore Raise Mediam

An exercise of the street doises of Pelan has been made by and corres pondent of an American newspaper and ought to be useful when the wall-

not a crasade reaches the Orient The great cause of confusion he find is the various street venders . ch of whom is armed with a mouse producing instrument by which he bely vertises his trade. The hather has two mongs of steel through which is draws a spike and tites makes a loud 7 1. The deffer of sweetmouts at ds. I is right hard two brass ceps which

logies together. The hover of ot, 4 .2 not, as such, the are in this scale of a moon, getting by this company precedence at agt. In fact, it is atten a plank, plank, that attracts usde. The man who has wicker bas have to sell beat half a gourd with a . metick, the clothes seller awings I from which has two bits of meial and their places in the scale, start forted to it by strings, the tor

ty penetrating tone, the acide r claps three blocks of tron to er and the seller of chareca' a seres his coming by a repeated to top in a block of word.

The watchman introduces a little visitety. He is armed with a ecodes drain which he taps in distinct meseles to mark the different house of the cight .-- Now York Post

Commence and any of making Will Tattoed on Man's Arm

The will found in a serae book whi t me preminently, before the theory is fuerio's Court, is one of many that t have been discovered in unlook ditor.! places. Even Mr. , Elder, Haggard story of the will tattoed on a woman back is nearly equalled by the cas la which a dead man's arm, careful'; preserved, was produced in the prohate court. On the firsh anneared the last wishes of the watator coacerning his estate. A lawyer, who is chie?' concerned with will cases, gave a re-resentative various instances of strange places where will were found.

. Buy Tickets for Eun Bathe was sun bath is said to he so popufor at present in Germany that in severa cities one can buy a ticket for a sue back just as in Canada one beve a tiefet for a liath in the surf. The pur a ath ticket entitles the holder to ! a room for disrobing, a bauling sus and a "nlana to the app."

Phones in Hely City The telephone has inveded Syrusato aprious having boon immedial ment semmente official poliste, hunigeme bounes and some residences.

Holping Theatre Patrons in Mariand there has been patented a combination of opera glasses and sound intensifiers for the use of playsoore mose moseing is impaired

#### TREES FRUIT AND PLANTS

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THE CHASE BROTHERS CO. of Ontario, Ltd.

Nurserymen. Established 1857.

Orto

Coll orne,

Oldest Priest wiss

Canon Joseph Watson, the oldest Romat Jatholie priest in Fraient died > the age of minety-three ? St. Type. The cases was p oal of the Cathedral Chapter of St. Mary's, Newcastle, and was ordained a long ago as 1847. He was at Tud hoe, in Durham, for 41 vea.s. and hile there built the beautiful church St. Charles and an orphanage for

The Cat That Walked Will Jones, a farmer of Lipps. Ve. gave his sister, who lives at ligra d. Ky. a distance of thirty-five mies, and ongora cat. When she atrived at her some with the animal say le eased tt; and in forty-eight hour sas re reived a telephone call from her brother that the feline had remirred.

Timing the Rounds to at a 1787 Pennsylvania jew new and out efited a defication the rolling a . Ing matches accorately and also bee. i omatically designate the name of t the rounds.

New Life Preserver

Worn defisted under the coat, a new ouch life preserver can be inflated and made ready for the by the insurtop of a capsale of the y compress.

#### WHITEFISH INDUSTRY

Decline of Creat Lakes' Harve Object Lesson

The Danision Figures Branc's & concerned chiefly with the product of of comme. fal species, leaving the 179. pagation of game fish largely in hands of the provincial adminoral s. While lobsters and whitehal are watributed in much the largest and her t. considerable attention is paid also to Pacific and Atlantic salmon. a inpon pout, pickerel and other gan. Execut with regard to such marine specea as the cod and mackers, extensive. artifeial culture and strict regulation of fishing operations are mecessary to onsure lisherles against depiction. The history of the whitefish production of the Great Lakes immiskes the best examile in Canadian experience of the manner in which a value has fishery can be either depleted in a very stort time or maintained at a high level of production accordingly as artificial culture is neglected or efficiently prosecuted. Smaller hadertes, such as the oyster, shad and storgeon, are to-der in a deplete' state. while the two most valuable fisheries of the Dominion, the lobster . I. Pacide saimen, will require con in our breeding operations on a verter tensive Prale to maniain their ma. men productivity.

# Frinted Butter Wrappers

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