GÉAR SHIPTING REQUIRES task, aithough this phase of driving capable. gives fittle trouble to those who know. To provide for varying speeds antheir machines. If the rear axle gears other shaft is suspended in the transare properly set and packed, the per- mission case on which are other gears,

Abusing the Machine,

no hills, which require the translation the transmission snart revolves no hills, which require the translation fourth as fast as the engine shaft, controls along could give sufficient making the low gear or slowest speed. need regulation to cover the emergen-

or clashing within a car when a care- speed are engaged. to abuse his machine in this way. which is kept in motion by the moface of the gear are four engaging frictionless. teeth. The end of the shaft is hollow, In shifting to high speed the engine and in this revolves one end of the should be throttled more closely and

Most motorists get on handsomely The two gears are combined so as to when it comes to driving along a com- form one piece, and this piece has on paratively level highway, but the min- its face engaging teeth corresponding ute a big hill looms up ahead much to those on the engine shaft gear, and of the joy in driving oozes away for a when the two are engaged the translarge number of them. They know that mission shaft revolves at the same the gears will need shifting; and shift- speed as the engine shaft. This gives ing the gears is not always a pleasant the highest speed of which the ear is

manent mesh gears, where shaft mo- The gear on the engine shaft has pertion is turned into axle motion, they haps twenty teeth. There is one on should never make any trouble. It is the transmission shaft with approxiin the shifting goars of the transmis- mately forty teeth. Bringing these two sion, where gears come into mesh at gears with mesh reduces the motion varying rates of speed and where the of the gear shaft to one-half that of ubmber of revolutions, load and sever- the engine shaft, because the gear on al other things complicate the situa- the engine shaft has one-half the tion, that there are wear and tear. mesh of teeth, Farther along the gear shaft another gear with twenty teeth If an automobile could run at an engages another gear with forty teeth, unvarying rate of speed, if there were further reducing the speed so that no hills which require the translation the transmission shaft revolves one-

Disengage the Clutch. ces that are constanly arising, the When the car is standing with the transmission might be simplified into engine running the gears are in neua mere coupling and reverse. But this tral and no gear on the transmission ideal state of affairs is not in sight, shaft is engaged. To start it is custom-Consequently there must be provision any to disconnect the engine by disenfor varying speeds and loads, and gaging the clutch and move the lever be attained while the carreo that the gears that give the slowest is in motion. Therefore this means speed will engage. Once the car is the messing together of finely built under way and it is desired to increase genrs revolving so fast that the teeth the speed the lever is shoved forward, It is novelty to hear a grinding ward until the gears that give second

less driver starts or when he changes The competent driver, just at the from one goar to another. If such a instant of shifting from a higher to a driver is the owner of the car and if lower gear, will throttle down his enhe knows what was going on inside of, gine one-half and partially release the it when this unseemly noise occurs he clutch, to bring the number of revoluwill do well to take a few lessons in tions of the gear shaft to approxiautomotive mechanics to learn how not mately that of the transmission shaft, In the mechanism of a simple trans- mentum of the car. When both gears mission gear case the engine shaft has are revolving at about the same speed on the end a gear wheel and on the the shift is practically noiseless and

transmission shaft, which is square ex- the shift level should hesitate in neucept at the bearings. On it are two fral to avoid the jerk when high gear gear wheely of varying sizes, one hav- is thrown in. Constant jerking and ing about thirty teeth and the other jumping of this sort rack the mechanforty. These gears have square heles ism, chassis and body and shorten the to fit the square shaft, so that they life of each. Economy as well as commay be slid along the shaft, but both fort is involved in shifting the gears shaft and gears must revolve together, properly.

Export Trade Growing Meadily.

THE FISH EXPORTS OF THE DOMINION

SIX HUNDRED VARIETIES Dutch Hast Indies, Come, Cabs, OF EDIBLE FISH. France, Greece, Italy, Mexico, etc.

cessing and Finishing Plants.

Totalled in value \$3,357,510. By 1901 Carlada has the most extensive flan these had grown to \$10,720,352. Since the grounds in the world, and is the been more or less regular. In 1905 Dominion's inland waters and those of total experts accommend for a value of both coasts are to be found some six 317,114,318. By 1910 they were \$15. hundred varieties of edible fish. To 663,162; by 1915, \$19,687,068; by 1917. date not more than about one hundred \$24.889,253; and in 1922, \$29,380,957. and fifty are commonly known, whilst! The small growth in imports more or not more than twenty have become less reflects the growth of Canada's really important factors on the mar- population and the increase in the de-Net. The extent of the product of mand for prenared products of the Canadian waters, however, indicates fisheries. In 1901 total imports were most, clearly the potentiality of the of a value of \$972.989; in 1965, \$1.593,-Canadian fishing industry. In quan- 260; in 1910, \$3,782,317; in 1917 \$2,478. tity they could easily furnish the en- 279; and in 1922. \$3,071.034. the world with its needs without suf- With such expansive finshing thing any depletion and comervery grounds teeming with so élaborate a agar filling all the demands for variety of fishes it is difficult to acvicibly. As a matter of fact le is difficount at first for this necessity of imall to name a country of the globe porting fish preducts. It is explained.

. ties dir the Dominion for processing In the fiscal year 1922, Canada ex and finishing the raw product for conorted ish to the extent of \$29,578,392 sumption. At the present time Canada The frip I tooks hie other day in a catch valued at \$4.937,025, or is buying back in a finished state from roughly about 80 per cents of the anogother countries fish she could wholly mak eatch left Canada. Every variety supply from her own waters, and freof the caught in Canadian waters was quently the finished product which she of his caught in Canadian waters was apported in a raw state. This points For steering through the Milky Way. ing made up entirely of comparatively to obvious: existing opportunities in small tems. Exports of pollock, hake, the country for the greater establishand task took the first place, account ment of processing, and doising plants. ing for a value of \$6,403,252; cod fleb in he expert trade Canada is makwas records with \$5.509.323; canned ing a gratifying progress. She is conlonsters third with \$3,756,443; and connally extending her markets and them in order, fresh lobsters, \$1,403, augmenting the volume of her shipped 257; whitefish, \$1,150,511; swordfish, products. Room for much expansion \$1.0642383 dry satisficherrings, \$1.000; of trade in foreignamatkets, however \$1,064;388.5 dry salico-nerrouse. \$1,000. 427; and salmon, fresh, \$993.373. Other, yet, exists, and more or less organized. My steam is surely up by now interesting items of exports were 6,671 efforts are being made within the Docwi di cantied and preserved whate minion to serve these and make the mest worth \$10,969; 4,256 sealskins; industrial side of Canada's fisheries worth \$56,498; and 393,598 gallone of more commensurate with the source of cod liver oil, seal oil, whale oil and raw supply. other fish oil worth \$140,937.

Fish Exports in 1922, Prospective Guest How much do Canada's fish exports in 1922 were you charge here by the month?" divided as ! follows: to the United Kingdom. \$5,540,998; to the United Loron's know, but I'll ask the manager. States \$12,606.194; and to other coun- . Prospective Guest "Don't know! tries, \$11,233,765. Against this were What do you mean?" imports amounting to \$3,071,034, in | "Well, sir, you see, nebody has ever which the principal items were the fold stayed here over a week yet." lowing anchovies, sardines, sprats and sier sel maked in Mi, \$471,450; cod, haddeck, pollock, dried, fresh, smoked and salted, \$509,478; herrings, fresil teanned. Trozen and pickled, \$338, 98; Oysters, \$389.952; salmon; ston of cod liver oil, seal oil, whale oil end other fish oil, \$72,844. Of the total imports, fish products to the value of \$156.689 were brought in from the firsted Kingdom: \$1.210.477 from the United States and \$1,703,866 from other countries - 1515 18 10 18 31 10 18

As previously observed, ('anada's find exports so to apparently every eountry of the globe Japan is a heavy buyer of teesh and frozen salmon, terrings go is constant to the first and t badoes Jameica, Trinidad, Cuba, Fili, and New Zealand hobsters go in large

"They say she flirts outrageously."
"Dutrageously? I should say she quantifies to the United States, Ar ... flirts divinely."

Clerk "Hum ha well, really, sig-



"A bird in the hand is worth two in the bush." -The Evening News, London.

The Seer

What seest thou so rapturously gazing Into the future with enchanted eyes? Seest thou some vision of a world amazing, Some haven that the soul afar descries?

I see, amid these barren winter regions, Where Death in every wind has set his sting, I see the birds, like light angelic legions, Winging their way into zone of Spring!

I see this waste of snow like mist dispersing, I hear the freshets gurgling down the lane, I hear the robin his love-notes rehearsing, I see the Earth in summer garb again!

And so I stand thus rapturously gazing Beyond this grave of all earth's loveliest things, While Hope, whose magic presence is amazing, Points to long vistas of returning Spring!

- J. Lewis Milligan, author of The Beckoning Skyline and other poems

An Old-Time Prophecy.

Radio has had a more cordial welcome than steam received in its day, says a Boston paper. Now we are eager and hopeful. But a century ago gentine, Beigium, Denmark. France, when experiments with steam were Greece, Newfoundland, Norway, Swe making, people were frankly skeptical den and St. Pierre and Miquelon; and even scornful. Witness these canned salmon finds an extensive mar- verses from a clipping found in the ket in the United States, Australia, library of one of the early residents of Belgium, Bolivia, Strait Serliemenis. Chicago... What newspaper the clipp-South Africa, West Indies, Chile, Cuba, ing is from is not known, but on the back is a financial table captioned Room the New York Advertiser. The

hat has been growing steadily for a see would tell of the day's work done merely by means of push buttons. after the Confederation of the Domin-

and the exports of fish from Canada, Suggested by a conversation respecting the astounding rate at which steam earriages are expected to go, and the consequent march of teffrement

AN EXQUISITE OF THE YEAR 1830 AT BREAKFAST Tell John to set the kettle on.

I mean to take a drive; only want to go to Rome And shall be back by five.

Tell Cook to dress these homming birds Eshor in Mexico:

They?! be un peu trop hant.

I'll the that wine, too, a lo Rose. where Canadian their of some skind by However, in the fack of adequate facili-Endure that vile champaigne? . . .

> To breaklast in the moon. Thanks to that awa ward Lord Bullaffer! If the candle was burnt continuous. at one of the two office. Has spotted my new imfloor

He ran against a star. And, turning round again too soul. Came joit against my car.

Such fellows ought to keep below And never venture there; If he's so clamey, he should go By no way but the Beir.

But the high pressure on; Give me the "breath-bag" for the way All right-hey whizz I'm sone.



na or not? not a Judge.

To Burn Five Thousand Years.

and is believed to weigh a fon. It has been presented to the church has disclosed the presence of many As he read it his discouraged, halfto Cartiso. The great singer was very

They've now been killed at logge two lory. Li is only intended that the candle as long as 5,000 years.

burnt to the memory of Caruso on All. Souls' Day, A.D. 6022.

it, it is estimated it would last for

Logical. "Can I interest you in automobile insurance?"... reise...

"Welfer what of that? You have burgiar instrance, Pressine, and yet the West in the fell and fattened at who was enrolling her dang her in his rional and this 1. 22 and champion you have one burgian on your pre the elevators all winter, being finished, Sunday school.



will be 61,000,000 bushels, through the addition of two new devators. Remarkable Industrial Exp Description of the Roll Park is seased their so many cares and an is a Belgian.

by no means committed to the grain traff xieties that it will be a relief for them. I. W. Bigiands will be a relief for them. fic. The ports have been experiencing to know I'll disgrace them no more."

a remarkable industrial expansion, The minister frowned thoughtfully which is particularly noteworthy in there in the darkne s. "Come back to the pulp, and paper industry. Much the house with me," he said at last. "I who have wen world, ch timber activity has in the past year want to slow you a cuter I received to Western Canadian farm Brohably the largest candle in the ments of recent date will probably Dill reductantly followed the mints-Worki has just been placed in the have some bearing on the future proster home. In the little from room a Church of the Madonia of Pompell at perity of the district. The two cities lamp had been left burning for his re-Naples. It stands eighteen feet high, are surrounded by some excellent time turn. He gave Dill a seat by the table ber limits, whilst casual prospecting and handed him his brother's letter.

BIG DEVELOPMENT

of Unprecedented Activity

in 1922.

volume of grain shipped.

passed through the ports, a volume

a comparison is made with 1902, twen-

ty years ago, when the perts received

8,819,004 bushels and shipped 10,821,-

307 bushels. In the 1922 season, when

Progress in Twenty Years.

Twenty years ago the grain-weigh-

ing staff in Port Arthur and Fort Wil-

liam was composed of 3 men. To-day this staff consists of 110 employees.

Twenty years ago the chief inspector

covered less than two miles daily. To-

day, to visit all the grain-handling

plants, he must travel nearly fifteen

miles. It used to take from twelve to

fourteen hours to load a ship carrying

100,000 bushels of grain. This past

summer two steamers were loaded

with 776,000 bushels in fourteen hours.

Twenty years ago 206,000 hushels was

a good volume of grain to ne handled

in a day by the weighing staff. The

average in 1922 was 3,000,000 bushels

day. In the remote period a record

was created when 600,000 was reached

in shipments by steamer. On one day

eight steamers loaded at the Twin

Parts 1,000,000 bushels in excess of the

Vancouver in 1921. The combined ele-

vator capacity of the ports in 1902

was in the neighborhood of 6,000,000

bushels. To-day it is in excess of 56,-

000,000 bushels, and by the fall of 1923

entire shipment out of the Port of quired.

of the 1922 season a fleet of twenty-

bushels were handled in one day.

work progressed at fever heat, as worse until he was a slave to drink.

much as three and a quarter million Though his family entreated him, he

by a Home for Orphans, as a memorial valuable minerals in the vicinity. scornful look gave place to one of ten-The pulp and paper industry is alderness. His hands trembled; and tear oats and barley were a special generous to the orphan home during ready an important factor in the indus-after tear stole down his cheeks. When generous to the orphan nome during trial progress of the Twin Ports and he had finished reading he folded the gifts upon it amounting to \$10,000 a will be a greater one in the future. letter and returned it to the envelope. year. As a return they have evolved The Fert William Paper Company, "My brother," he said at last, "le a land and gave to Canada mother this kind idea to perpetuate his mem- which has for some time been turning wonderful man. You cannot underout large quantifies of wood pulp, in stand what this means to me, to know her soil and of mane. stalled two newsprint machines, and he loves me to spite of my past shauld be lit for twenty four hours commenced the new year with an outonce a year on All Souis Day and put of 100 tons per day. The Provin-brother is a wonderful man, but there he came to Canada in 17 2. at this rate if is estimated that it will cla! Paper Mills. Ltd., has also installed is a Lover that eticketh closer than a 1912 and his first months but at this rate it is estimated that it will ed a paper-making machine which will brother." And then as Dill looked up a hired were in Scuthern Alice is. print per day. The plant of the Thun-brother has never ceased to love you and strayler agricultura, or On this basis a light will be lit and der Bay Paper Company is turning out Jesus Christ is the Lover of your son where a they valled for Paper Company is expected to locate make a new creature of sea

Record Movement of Grain.

the utilization of grain screenings as Joy in that Scotch home across the an cattle food. Hendreds of tons of grain secreenings at the giant elevanthat the lest was founds tors have appually been wasted until ertain Western ranchers realized "I haven't an automobile on my treir valuable food properties, since when thousands of head of sneep, catthe and swine lided been brought from asked the coloned parson of the last eleventh prize at the Chicago interns. In prime scape in the spring and close to the Dominion Livestock markets, the reply Though only recently initiated this industry is finding rapid favor and may name for a girl, ventured the parson. Chicago, windows of the world's base. develop into proportions extensive and ;

The Lake ports experienced a year Y see, palson, Twas diseasay. As the accomplishment of Mr Wyler, of unprecedented activity in 1922 Devisity option comes from wild poppy, the new wheat champion, shall be an which resulted in a record being made an' so when dis onlie was bohn. Ab encouragement and urge to fellow for the movement of grain. This re- decides to name her Opium cause her United States agriculturasts to follow cord will be surpassed however for suppy such am wild. the continuous settlement of the West with increased cultivation and production will result in a demand uponthese parts to accommodate a still greater, volume. In the past twenty sears snipments from Fort William and Port Arthur have increased at the rate of 100 per cent, per year on the average. What will the next twenty years bring to the ports?

Helps for Women.

A power plant is a wonderful gift. The housewife's heavy work to lift. For washing dishes, too, I think, A fine thing would be a ufee farge sink.

Running water and painted floors. An old rag carpet at kitchen doors. A table of wheels, fool and dishes to carry.

And a washing machine makes my housewife merry -Alford F. Ward

Stories of Well-Known People

OF THE IWIN CITIES y cites in incident to thing he wanted was merely a stepping sense of humor, as the following stone to something greater. Lake Ports Experienced Year

and resulted in the enormous increase Grayson is a Scutherner of the South- old castle. of trade passing through the Port of erners; he was born in Culpepper! As they were leaving they insisted Montreal, are likewise reflected in the County, Virginia, and had studied at on "tipping" their guide! I thegine ports of the Great Lakes, the tran- William and Mary College.

gantic Western granary on its way to ears" when Lloyd George's entire table was. the ocean. These combined with the conversation was of that America humper crop of 1922 have contributed which lies south of Mason and Dixon's to the briskest season Port Arthur and line. The premier was specially famil- in search of fame and fortune have Fort. William have ever known, and far with the career of Stonewall Jack- secceeded to such an extent that they the achievement of a record, in the son, for whom he professed warm admiration. Finally after dinner Lloyd Grain traffic in the 1922 season ex- George's nieces went to the plane and ceeded any previous year by a wide sang-American Southern melodiesmargin. Before the winter's ice had

put an end to lake activities, more Grayson. "How is it," he said, "that That was too much for Admiral than 200,000,000 bushels of grain lead you all have such an intimate knowledge of my part of America?"

substantially in excess of any year in the port's history. More grain was Perhaps the direct query took the premier by aurprise. At any rate he handled at the Twfn Ports in the seareplied: "Well, you see, I have just son than at Chicago, Duluth and Sufinished reading Henderson's Life of perfor combined. To what an almost unbelievable extent the Twin Ports Stonewall Jackson. have developed may be realized when

Admiral Grayson's response was in the good old American fashion: "My his name." Brother and Lover.

refused with all a Scotchman's pride

to return to his old home in Ayr. He

ter from his brother. "Drink is John's

weakness," he wrote; I want to help

him, but he is too proud to take any-

write and tell me how I can help him.

I never have ceased to pray for his

would not disgrace them.

then, "Is that you, Mr. Fox?"

when the good news readined them

After the Old Man.

"Where your little girls mana?"

"How did you ever come to pick that

CET US HUPE

been put on the scrub leam!

College Girl: And, meth r. I've

Mother: Then thope your!! ! now!

name?"

minister, aghast

the painer that the man would latice of the future Duchese of

togeth his end when the Lady Hisabeth Howes Lyon, shows.

During the peace conference, says A number of American tourists be Mr. Morgenthau, the premier was keen come to look over Glamis Castle, the to gain favor with those close to Presi- ancestral home of the Strathmore dent Wilson, and one night he invited family, and in a burst of high spirits The effects of the Former Tariff, to dine with him Adm. Cary T. Gray Lady Elizabeth attired hamels as a which has thrown Canadian grain back son; whom he knew to be not only Mr. housemaid and offered to show the from the international border to find Wilson's physician but one of his per-visitors round. The tourists accepted is outlet through Canadian channels, sonal confidents as well. Now admiral and spent a delightful afternoon in the

they would have been considerably shipping points for the crop of the gi- Consequently he "pricked up his surprised had they known who she

A Great Prime Minister. How many men who have emigrated have become Prime Ministers of the country of their adoption? This is the record of Mr. W. M. Hughes, who has resigned after being Australia's Pre-

mier for eight years Nearly forty years ago Mr. Hughest left England and landed in Australia, penniless and without work. For a time he wandered about doing any odd jobs that came his way. Policeman, bookseller, actor, and railwayman-all these roles were filled by the future Prime Minister. Only ten years after he had landed Mr. Hughes was elected to Parliament, where he quickly made

Brother and Lover. John Dill had gone from bad to NEW OAT-GROWING WORLD CHAMPION

One day the minister received a let. J. W. BIGLANDS OF LA-COMBE, ALBERTA.

thing from the elder brother who reland, Reaps Fame and Prosperity in Western Canada.

conversion. Christ can save him, I For years the oat-growing champion-That night the minister had to make ship of the world was he'd by an Enga call. It was pitch dark, and in the part of the town where his errand was Alberta, and new, by the award of the there were no street lights; he had Chicago International in 1922, this literally to feel his way. Hearing foor triumphal achievement has been efsteps, he stopped. "Good evening," he feeted by another Englisman farming said so that the person might not in the same province, J. W. Biglands For a moment there was no reply championship second by a former of Lacombe. With the world wheat United States citizen in the adjoining The minister recognized Dill's voice. Province of Sasketchewar, the two "Where are you going, John?" he in- great constituents of Canada's immi-Again there was a pause. Then are considered the two greatest world gration tide are represented in what came the sharp reply: "I am going to agricultural awards, the championend it all! The quick r I'm out of the ships for wheat and oats. If further testimony were needed to illustrate "Why, John Dill!" exclaimed the the possibility of men of any nationality coming to the top in agriculture "I'm the black sheep of the family." the man continued. "All of the rest in the consistent winnings.

there were none for

on the establishment of a to prove the wonge ful possibilities

1.800 years; and according to another, have a capacity of 35 tons of book at him inquiringly, he added, "Your country and assign as I groundwood bulb, and the Great Lakes. He never has given you up. He can been acceptomed to hearing the real he went coate to he beautif "What about the wasted year."
"Never mint the wasted years; the To light it a girl has to mount a at the two great grain parts, and the minister regulated him ato and the kenter over and then or an another transfer of the minister regulated him ato and the kenter over and then of get

I must ake, commenced species with an experience are all seed code.

The first step in the grade to the years ago when he purchased from h University of Alter a tiree bushale Registered Victory Oats. With grain from tets seed in 1921 he we ship at the A bests Provided Seed "Her name am Opium Bryant," was Fair in February, 1822 | File 1972 crop went one better and a sample won the "Opium? That's rather an odd first and championship pozes at

An Encouragement to Others.

As the accomplishment of Mr Wyler, in his steps, so what Mr. Hix ands hes achieved to further past of what might be now upfilled by the thousands of his tellow-countrymen froing biesk and hopeless prospect ot s man can win sines end onsto de there is the a harman another, and Mr. Lalands a merely wen who for yours have been powing that grocuses of faculty on Canadian conditions is no landican to success, provide the newcomer has the reill site fersonal qualities In fact a survey of the w. pion agreed rist of past The stous-

rates tray hearly that handian in circumi " :atter 1 (4) (2)

something about house vorkerings in and median Ca was

you come home at the end on the

0

latchet in the East they strike off.