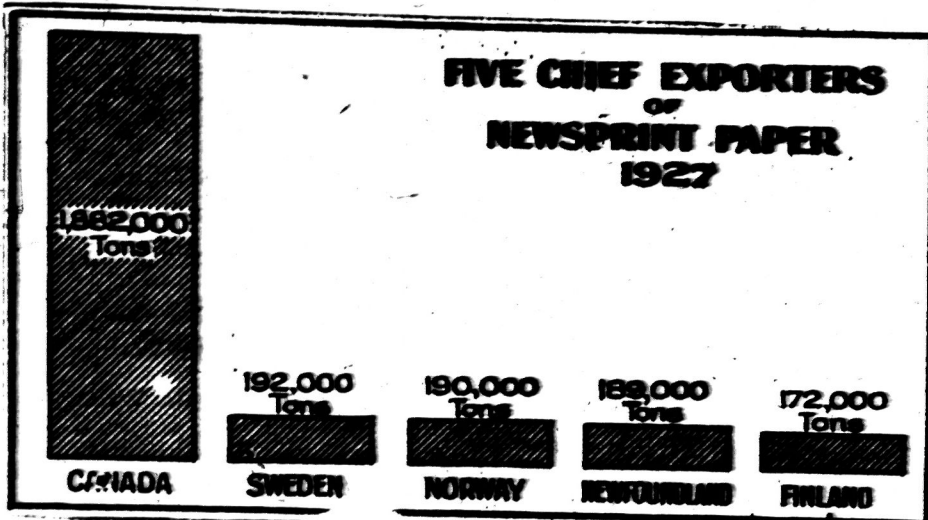


## World Trade in Newsprint Paper

Canada's Exports Exceeds Those of All Other Countries Combined



According to the best data available the total export of newsprint paper from the different producing countries in 1927 was slightly more than 3,000,000 tons. Canada's export shipments accounted for over 60 per cent. of this total and the balance was contributed by some fifteen countries. Sweden, Norway, Newfoundland and Finland, each exporting less than 200,000 tons, were fairly closely grouped, while Germany and Great Britain had the major shares of the remaining trade.

The diagram is based on figures published recently by the Newsprint Service Bureau.

The Dominion's commanding position in this field of international commerce is, for the time being, beyond dispute, but it should also be a constant and effective reminder that the Canadian people have a greater business stake in forest protection and conservation than any other people in the world.—Courtesy "Natural Resources, Canada."

## Make the Most of Spare Space

### Hints On Using Odd Corners To Have a Place For Everything and Then Keeping Everything in Its Place

Spring, with its fever for cleaning and renovating, rings back to mind the old, old saying "a place for everything and everything in its place." One begins to wonder how more storage space may be provided. Or, if closets are cluttered and small, how can order and system be brought out of confusion and chaos.

In most homes the more closets and cupboards that can be provided, the happier becomes the housewife. Beside the usual storage space in the kitchen which provides for supplies, there are throughout the house, cleaning closets, laundry closets, clothes closets, and other storage space which might take care of children's toys, magazines, rubbers, boots, etc.

The cleaning closet, in which brooms, sweepers, mops, buckets, brushes, and other cleaning supplies are kept, should be sufficiently large as crowding spoils brushes and brooms. There should be floor space for sweepers and mop pails, hanging space for brooms, brushes, and mops, and shelves for cleaning supplies such as cleaning powders, furniture polish, etc. It is well to have a drawer or two in which cleaning cloths may be kept. This closet is best at the back of the house, or near the kitchen. It is a good place for it. An old wardrobe may be converted into a very convenient cleaning closet or different companies are now including cleaning closets in connection with their sectional cabinets which are very good and probably as cheap as to have one made.

The laundry closet should be in the room where laundry work is done. It may be high enough to have a shelf at the top for the soap, bluing, starch, and stain removers, with space below for baskets, wash boards, and ironing boards if this is not built in a separate place.

A linen closet is one of the most important store rooms in the home and should be located in a part of the house where it will be most accessible. It should be planned with the idea of classifying and organizing the different sizes of sheets, pillow cases, towels, spreads, and any other household linen. Sometimes the extra bedding is also stored in the linen closet. When this is done, wider and deeper shelves are necessary. The shelves with drop fronts are desirable as linen is very heavy to handle in a drawer and the drop front extends the shelf which may be an aid in sorting the linen. Sliding trays are sometimes used for the linen. They are made by simply having the drawers shallow and cutting away part of the front.

Clothes closets should be arranged in every bed room of the house and a closet for outside wraps is very desirable in both the front and back of the house. The most important things in connection with clothes closets are to have easy access to every garment, good light, and the possibility of airing. Clothes closets should be sufficiently wide to take a coat hanger without the clothes touching the walls, hot, on the other hand, it is not well to build them too deep. A closet two feet deep and three or four feet long will hold many garments if it is correctly arranged. A horizontal bar running lengthwise is economical of space and makes a very good way to hang one's clothes.

Sliding rods can be used for the small "hole-in-the-wall" closet. These rods can be pulled out of the closet into the room. They are especially good for the closets under stairways. The wardrobe closet is being utilized much in the modern home because of its compactness. These can be planned along the lines of a wardrobe trunk. It can be divided vertically into two equal spaces, each pro-



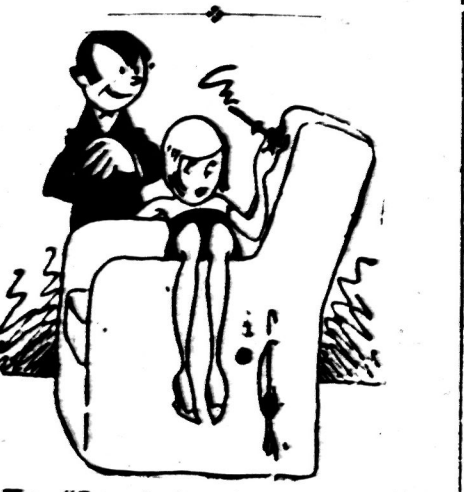
FOR INDIAN MARATHON  
Frank Goodleaf, University of Toronto student, who will compete in the international event from Topeka to Kansas University.

vided with solid panel doors. Have the compartment on one side sufficiently wide to allow for a coat hanger. In the other compartment might be a tier of drawers with a shelf or two below for shoes and at the top two small closed doors to use for hats. Shoebags made of colorful chintz to fit the dimension of the door may be used. Shelves for hats and shoes can be respectively above and below the garment space. A shoe support on the door or inside the closet is a very tidy way of taking care of the shoes. Curtain rods may be used.

In every home there is usually some place for the medical and surgical supplies and this is commonly termed the medicine chest. This should be a shallow closet with narrow shelves so all bottles will be in single rows, each plainly labeled. All poisons should be kept on a shelf by themselves. It is also a good idea to either have a different shaped bottle or a different kind of stopper so they will be recognized in the dark. The medicine chest is usually placed in the bath room although this is not necessary if there is a more convenient place.

Besides these closets listed there are always odds and ends of storage spaces around the house that can be utilized to good advantage. Sometimes it is a bit of space around the chimney, a set of drawers under the stairs, or a window seat. If the window seat is on the second floor, it could be lined with cedar and make a possible storage space for wool blankets.

One seldom has too much storage space or too many closets. The main thing is to use every nook and corner to the best advantage.



He—"Jane is irresistible."  
She—"I never put up much resistance either."

A Hollywood film actress is said to shun social life. She invites anybody to her weddings.

A Hong Kong official has been elected in England for the first time. It was explained that it wasn't the same.

## The Motor Car Past and Present

### Fundamentals of Engine Unchanged—But Fewer Nuts and Bolts, Better Timing, Ease of Control, More Exact Fitting of Parts.

Thirty-odd years ago an automobile was an invention which, in the belief of the average citizen, could never become successful because he did not choose to accept it in place of the horse and carriage. That his judgment was wrong is evidenced by the fact that over 20,000,000 motor vehicles were in use on the highways of the United States during 1927, which were produced in American factories.

The first automobile was necessarily a crude affair, which strangely resembled a steam calliope while in motion. It had no claim to beauty, nor was it silent and easy to operate like the 1928 models, but the fundamentals of operation which impelled it to move down the street and up the hills have remained practically unchanged through the years.

Turning to the description of the Winton 40-horsepower automobile, Model M, produced in the early years of the industry, we find that it had four forward speeds, selective type; direct drive on third forward speed; smooth-as-silk multiple disk clutch; "offset" cylinders, preventing friction—loss of power; horizontal drive shaft; mechanical throttling carburetor; "shooting" oiler, mechanically operated; all working parts easily accessible; floating type rear axle; jump spark ignition; centrifugal pump cooling; and improved Winton twin springs.

### Gas and Spark Plugs

While the language is somewhat different from that used to-day the fundamentals of locomotion are the same now as in those early days. The gasoline tank was placed on the rear of the vehicle. Compressed air entering through a tube caused a displacement of a volume of gas equal to the volume of air coming into the tank. The gasoline was forced through an auxiliary tank into the carburetor, controlled by an adjustable needle valve, by means of which the flow was greater or less, according to individual needs. The air in the carburetor gathered a few drops of gasoline, which immediately evaporated into the air forming a mixture of gas.

This compressed gas was forced into the cylinder and ignited by an electric spark. Spark plugs were employed similar in construction to those now in use. To produce the spark the automobile was equipped with an electric ignition system, the component parts of which were battery, commutator, switch, spark coil, spark plug, wire and spark advance lever. Many cars of the period from 1903 to 1907 used a double battery system so that should the dry battery run out, the storage battery was ready to give the necessary power to keep the vehicle running. In the automobile of to-day the same idea is carried out in a much simplified form, but the basic idea remains unchanged.

In describing the spark plug of 1906 the Cleveland Automobile Institute says: "The spark plug is so constructed that, when energy reaches it from the batteries, the energy jumps a gap between the platinum points of the plug in the cylinder. When this jump occurs, a flash of flame bridges the gap. And, since this flame takes place in the cylinder at the exact moment when the cylinder is charged with compressed gas, the flame ignites the gas and causes its combustion and expansion."

The only practical difference between the operation of the first automobiles and those of the present day is in the timing and ease of control from the driving seat. When the automobile of 30 years ago was driven by a one-cylinder engine, which often missed fire, due to imperfect timing, the eight-in-line engine of 1928 is so constructed that each cylinder jumps the spark, without loss of power at any point. Crude operation has been succeeded by an easy motion which is almost entirely automatic.

### Systems of Cooling

Two systems of cooling, one by air and the other by water, were used on the early models. In the air system a series of fins or pins were placed on the outer walls of the cylinder which came into contact with the rush of air occasioned by the speed of the car. Except in a few automobiles, this system has been displaced by the method of water cooling now in vogue. A notable instance of modern air cooling is the system employed by the Franklin car, which embodies the same ideas along much simpler lines.

Three water cooling systems were employed on the old-fashioned cars, namely, thermo-siphon, gear pump, and centrifugal pump. In all of these systems water spaces were provided around the cylinders between the inner and the outer walls. The upper part of the water chambers, around the cylinders, was connected by a pipe to the radiator at the front of the car, where the water passed through tubes to the bottom of the radiator and thence flowed back to the lower part of the motor cylinder.

An illustration is given which is interesting and practical even to-day. "When water boils it leaves a deposit. The tea kettle is a familiar illustration. After a tea kettle has been used any considerable time, a coating appears at its bottom and sides. This is a deposit of lime. The same deposit of lime may be left in the radiator of an automobile and the precaution must therefore be taken that the radiator tubes be sufficiently large so that the deposit will not clog the passage of water." The years have taught automotive engineers this lesson so that the radiators on the modern cars are in no danger of clogging. However, the method of cooling to-day is based on the system used back in 1903.

How familiar this reads: "The multiple-disk clutch has proven so successful that it is rapidly displacing other types. Among numerous advantages in its favor are that it is small and compact, has metal-to-metal friction surfaces, and revolves in an oil bath, assuring its constant automatic lubrication. Except for certain minor changes the multiple-disk clutch seems to find favor in 1928 just as in 1906. The great change in automobile construction has been the exact fitting of parts so that all unnecessary bolts, nuts, screws and other joinings have been taken out. The gasoline flow is entirely automatic to-day, the oil is filtered and used many times, the cylinders have been multiplied and the pistons shortened, while braking is on all four wheels. If Stephen Duryea, who brought out the first gasoline car in 1895, could see the 1928 model of any car on the market he would be justified in thinking that his conception of a motor-driven vehicle was quite as practical in its age as the one he would meet on the highway in any part of the world to-day.

A gardener says that an early spring is necessary. Any pedestrian knows that.

Many people say you have reversed some of your old opinions. "Of course I have," replied Senator Sorghum. "Otherwise, how would it have been possible for me to remain in political action all these years?"—Washington Star.

## Try R Boys!



HOW PITCHER HERB PENNOCK HOLDS THE BALL  
On left his hand is set for a fast ball and on right for a slow ball. There is but a slight difference for each of the deliveries, and that difference is more a matter of finger pressure.

## Care and Repair of Electric Cords

All of the portable electric appliances in household use to-day depend for their satisfactory operation upon the electric cord. When the iron or warming pad refuses to heat, or the electric sweeper runs irregularly or not at all, the probability is that the fault is not in the appliance, but in the cord through which its electricity comes.

Early portable devices such as electric irons, curling irons and sweepers, wear out cords faster than do utility motors, washing machines and fans. The electric cord is not intended to withstand mechanical stresses, as will be understood after a word explaining its construction.

### Construction of Cord

The cord, which looks like one wire covered with woven fabric, is really two wires within one outer covering, which is usually silk. Each inner wire consists of many tiny strands of copper twisted together into a light cable, the cable being covered with a rubber coating. Outside of the rubber are several layers of woven cotton. The two cables, each complete in itself, are twisted together into a unit and covered with silk.

At one end of the cord is a plug for attachment to a wall socket or other receptacle and at the other a socket to receive an incandescent bulb or else a special plug to attach to the terminals of the iron, toaster, etc. The ends of the cords are attached within the plugs by brass screws or "binding posts."

Sharp bends and kinks tend to ruin the cord by breaking the fine copper wires inside it. Mechanical stresses, such as those resulting when an iron is allowed to slide off the ironing board, or when a toaster is disconnected by a yank on the cord instead of on the plug, injure it by breaking off the little wires at the point where the ends are held under the binding post screw heads. Setting a hot iron down on the cord damages the insulation and may cause future trouble. Getting a cord wet encourages short circuiting, particularly if there already be a weak spot in the insulation.

Most frequently breaks in the cords come at either end, since most of the wear from bending occurs near the plugs. It is very easy to repair trouble of this kind and every user of appliances should know something about it, since such knowledge may save not only a repairman's charges, but hours of valuable time. The only tools needed are a small screwdriver—one from the sewing-machine tools is suitable—and a small kitchen knife, although a pair of cutting pliers is very convenient.

First, be sure that the cord is not

connected with any source of electricity.

### Take the Plug Apart

Take the plug apart. Inspection will usually tell the way to accomplish this; with plugs that attach to irons it usually means removing two screws, but with lamp sockets all that is needed is to squeeze the brass shell on the lower portion near the key until it disengages from the smaller top section. Let the reader assume the work concerns a socket. After having separated the two sections of the brass shell (a screwdriver will help), slide the top one, and the fibre shield that lies inside it, back on the cord out of the way. Slip off the lower portion of the shell and lay it aside. Loosen, but do not remove, the two brass screws that hold the bare ends of the cord. The chances are that when the amateur has gone this far, he has discovered the break. Pull the wires out from under the screw heads.

Now, before disturbing the knot which is tied in the wires inside the socket, take note of their length below the knot. This information will be needed later. Untie the knot and straighten out the ends of the wires. With knife, pliers or a pair of shears—copper is soft metal—cut off three to six inches of the cord so as to get a new undamaged end.

### At This Point

At this point it is well to make sure that the upper part of the brass shell, and the fibre shield that belongs inside it, are already strung onto the cord as described above. (Ask any electrician how many times he has forgotten to do this.) With the point of the knife cut lightly through the outer silk covering far enough back to give two separate wires which can be tied and have the ends of the proper length. Now take each of the two inside wires separately and with the knife peel off all the insulation for about one-half inch back from the end. When the bare copper is exposed scrape the strands gently until they are clean and bright. They have a tendency to spread out like a whisk broom; twist them up between thumb and finger until there are no loose ends sticking out to cause a blown fuse. Knot the wires above the socket as they were before; if the beginner can't duplicate the knot, let him tie an ordinary square one. Insert the twisted ends of the wires under the heads of their respective binding-post screws, wrap them once around the shank of the screw in a clockwise direction, and tighten down the screws firmly. If the peeled section of the wire was too long and the end sticks out, loosen the screw has been tightened, loosen it up and cut off the end until it will stay under the head of the screw.

Now slip the lower part of the brass shell, and its inner fibre lining, over the socket, and slide the upper parts back down the cord into position. Bring the two sections together with firm pressure and a little judicious jockeying, until the two lock together with a click.



Would Die For Him.  
The Brunette—"I love him more than I can say—I'd almost give my life for him—but he seems to prefer blondes."  
Friend—"I'd dye for him if I loved him that much."

### WAIT TILL—?

A few incidents of the Chicago elections:—One candidate was killed; six persons were kidnapped; two were wounded; two gangs fought a pitched battle with pistols; gunmen toured the polling booths, attempting to drive away opposition; gangs active in the industrial and adjoining wards; candidates and voters being beaten; mobmen invaded the polling places; they threw out voters who refused to mark their papers according to instructions. But this was only a preliminary contest to choose leaders and candidates for the major elections of the Republican Party. Wait until there is a real election.

## ADAMSON'S ADVENTURES—By O. Jacobson.

