TOOF 38 STUDY SPORTS

THE JUNIOR BRITISH WHIG

BIGGEST LITTLE PAPER IN THE WORLD

HUMOR PLAY WORK

THE SWIMMING CLASS

is performed. For the swimmer who arm, crooked, out of the water. The oned I'd not be so green if I'd just is thoroughly at home in the water, leg drive should be just as though you use my eyes, and Jimmy, who's my of practice and can be performed after a few trials.

PORPOISE: Imitation of a porpoise is one of the greatest stunts you can do. It consists merely of a series of surface dives, letting the feet rise high from the water, legs straight and toes pointed, as you go down. If the water is shallow-that is, about four feet deep-go to the bottom, crouch, and spring upward. Done over and over again it is very effective.

SOMERSAULTS: Tread water, with arms out to the sides, palms down. Bend head forward, take a hard stroke with both arms to force the body down, and keep it curved until you reach the surface again. Performed swiftly and cleanly it is a pleasing trick. For a back somersault, start in the same manner, only throwing back the head, arching the spine, and bending the knees.

SPIRAL: This is very effective. Start swimming with crawl stroke, FEET TIED: Not easy, but not as out where you are." using a short double kick, on the or- difficult as it sounds. With hands and "A swell idea!" says Jim to me, der of a fish-tail motion of each leg. feet tied, throw both arms out of the 'and kind of thrilling, too-a secret



Then begin revolving, taking alterstroke. Start slowly, then speed up. REWOLVING STATUE: Also known as the rolling log. Straighten out to whole body straight, hit the water that Jim had kept his word; I gave a the floating position, and clasp hands, feet foremost at as much of an angle joyous howl and started running tostraight above the head. Take a deep as possible. movement of the head and waist. other ornamental feats in swimming, though the spot was never quite the Keep the body as straight as possible. They are all a matter of practice, and as it sounds. Lie on either side, thrills.

Puzzie

ANSWER TO

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Aug. 23|Sept. 20|Oct. 18 Samaria

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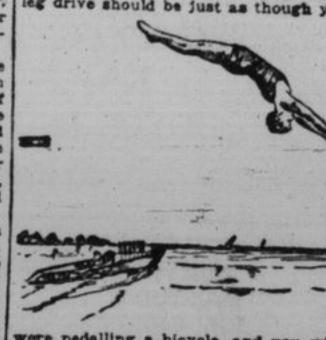
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Ornamental swimming is the title keeping yourself affoat by an underunder which every little aquatic trick arm movement, and hold the other but thought that I was wise. I reck-



were pedalling a bicycle, and you will how that guy named Tompkins and go around in a circle. By reversing his brainy pal arranged a bird-like

SWIMMING WITH HANDS AND you'd use a thing like that, I'd find sweeping the water back while both cry will do. And if you're lost I'll feet work on the opposite side. By no hunt for you and call for you all day. means try this trick in water over The gang won't need to know you're your head, and never try it unless green enough to lose your way." hare are qualified life savers standng near and watching.

DIVING FEET FOREMOST: This on the edge of the pool and leap out, dark when I was sure I'd lost my way as though you were jumping into the to camp. I sat down on a mossy nately a forward and a back-hand water. As your body is in the air, let stump, all worn out from the tramp. the feet come farward, and the arms My head sunk down-dejected-likego back over your head. With the and then I heard an owl. I knew

BICYCLE: This is performed just for the spectator, they offer many

CAN YOU MAKE A TITLE FOR THIS PICTURE

WITH THE LETTERS GIVEN

returned the cry till I was hoarse as I could be. I kept a-running back and forth,-it came from all around. At last I couldn't stand at all; I sank to the ground. And then I saw a little light come gleaming through the trees, and there

was Mr. Williamson-and Jimmy, if you please! "I thought we'd never find you, Herb," says Jim, "because you see, when we fixed up that signal stuff I never thought you'd be so thoughtless as to lose the bunch at night instead of day and give those nervy owls a chance to mix us up that

THE SHORT STORY, JR.

ONE BRIGHT IDEA

closest pal and went along, said he was kinda green himself and in the selfsame fix as me. And so we kinda stuck around and helped each other out, and wasn't long before we felt we knew our way about.

Well, one day Jim says, "Looky iere, does it occur to you that some day you might lose your way, and then what would you do? Such things do happen, Herb, you know; you might just get astray and leave the bunch, and then first thing you know you've lost your way. It makes me feel so shaky-like to think of it at

Says I, "That's not so very bad. We'll just arrange a call. Remember those detective yarns we read and the movement you can go backward cry? An owl it was; you recollect? The notes could carry far; now if

water, first to right and then to left, call twixt you and me-that hoot owl Two days from then the very thing

we'd talked of came to be. As luck would have it, why, of course, the one s difficult and very effective. Stand that strayed was me. 'Twas almost ward the place from where the "Hoobreath, and revolve rapidly by a slight No doubt you can easily invent ing" came; but somehow seemed as

Now here, now there; now far, now near, I heard him calling me, and I

By Mark Stuyvesant.

How Theodora Saved the Roman prohibited it to be repealed. Empire.

Perhaps it was Constantinople, or maybe it was Cyprus, where Theo-Special attention given your family dora first saw the light of day half or friends going to or returning from a thousand years after the birth of Christ. Historians differ. But we For information and rates apply to know that she was the daughter of J. P. HANLEY, G.P. and T.A.G.T. Ry., Acacius, the bear-feeder at the Greek amphitheatre in Constantinople.

When she was a very little girl she was sent on the stage to learn the art of acting. She was not successful as a dancer or singer. She had no aptitude for either of these arts. But she was successful in the performances called "mimes," where she showed her remarkable spirit, and in a charming and impudent way amused the thousands who

flocked to the performances. Aug. 11|Sept. 8|Oct. 6 Saturnia Aug. 31|Sept. 29|Oct. 27 Cassandra Theodora became famous and travelled to all the large cities of the then known world, and returned to July 29 Sept. 2 Sept. 30 Tyrrhenia her home in Constantinople. Here Aug. 19|Sept. 23|Oct. 21 Albania she met Justinian, the patrician, the Sept. 16|Oct. 14|Nov. 11 Ausonia all-powerful nephew of Justinian. the Emperor, and who, although merely the nephew of the Emperor, was practically ruler.

July 22 Aug. 26 Sept. 28 Andania Aug. 5 Sept. 9 Oct. 12 Antonia The young Justinian fell madly in love with the beautiful Theodora. His aunt, the Empress Euphemia, *July 20 Aug. 31 Sept. 28 Scythia objected to the marriage strongly. Aug. 17 Sept. 14 Oct. 12 Carmania This was only natural, for there was

"WITS" OF HISTORY

jan ancient law which forbade senators to marry women of the stage. However, Justinian did not give up

> The marriage proved a very happy one. Theodora was more than a beloved wife to Justinian. Her intellect was most unusual for a woman, and she soon acquired great influence over her husband, because of her excellent judgment in all matters of state.



Canadian National

Theodora. He waited until his aunt died, and then persuaded his uncie, the emperor, to consent to the marriage, and caused the law which had

Justinian consulted her on the



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THE RECEPTION FACTOR OF A LOOP AERIAL.

It was stated in a previous article that the maximum potential difference between the two sides of a loop aerial exists when the plane of the loop is parallel with the direction of travel of the waves received. The value of any particalar loop at a certain wave length depends upon a number of things all very closely related. The wave length range which can be covered in reception with any particular loop aerial also depends upon a number of related considerations. Since the vacuum tube is a potential operated device, maximum potential is desirable and should be aimed at in the design of a loop and the selection of associated apparata. It has been found that the effectiveness of this type of aerial depends upon what is known as the reception factor, and which may be calculated by finding the product of the number of turns, area of the plane of the loop and its inductance and dividing the result by the product of the square of the wave length to be received times the total effective resistance.

It is advisable to connect a variable condenser across the loop terminals in order to tune it. and the potential required for application to the vacuum tube is generally that across the condenser. When this is the case the number of turns of wire is the important consideration and should be made as large as possible. Since the inductance of the loop increases as the square of the number of turns | cast reception.

and since the resistance increases very rapidly with turns, there is a limit to the number which may be used. The resistance of the loop is increased when the received wave is near the natural wave length of the loop itself, which is another reason for using a shunt condenser. The loop circuit will operate best when the received wave is about three times this natural wave length of the coil. The greater the area enclosed by the coil the greater will be the inductance and resistance of a given number of turns. Therefore, in order to have a maximum number of turns. as well as proper value o. inductance, it is necessary to limit the size of the loop when short waves are to be received. In practice it is advisable to determine the voltage reception factor at the wave length to be received for several different sizes of loops and take that which shows the maximum. A coil, four feet square, wound

with seven turns of ordinary lamp cord, spaced about a half inch apart, is suitable for the meter reception with a variable condenser of 0.0005 maximum capacity. The condenser should have an air dielectric and be otherwise designed to have as low losses as possible. so that the tuning qualities and signal strength of the loop will not be impaired. The efficiency of a loop designed for short waves is rather greater than one designed for longer waves, which is of some interest in connection with broad-

A Herald-Sun Featara.

APPARATUS AND DEVICES

By RALPH BROWN, RADIO ENGINEER

AMPLIFIER WHICH WILL INCREASE

CRYSTAL CIRCUIT STRENGTH A new two step amplifier panel

has made its appearance. It can be used in conjunction with any

short wave receiver and also to increase the signal strength of any external crystal circuit. It is extremely compact in size, dimen-

sions being 5% inches long by 61/2 inches high by 8 inches deep. Operates on the audio frequency method of amplification of signal tone strength. The circuit functions quietly, and the absence of howlfng and noise so prevalent in poorly designed apparatus is greatly noticeable. Three jacks and a plug to the headset binding posts make it possible to use the detector in itself or one or two stages of amplification. Individual filament rheostats prove valuable. By means of short lead wires this type of panel can be readily connected with any type of short wave receiver, making an ideal and enjoyable combination that will prove very satisfactory in reception of telephone and commercial signals. The best t pe of plug and jack system is used, doing away with the possibility of having loose connections in the jacks through loss of resiliency in the springs at the jack.

A Herald-Sun Feature. Will readers interested in these radio articles kindly communicate with the editor by mail?

most important problems and fol- the palace, practically ordered Justlowed her advice implicitly. She was inian not to depart, and kept the at liberty to express her opinions in soldiers at their posts.

cause of her fearlessness and her strength of the empire. To reward power to influence others, she sav- her for her act of heroism, which ed her husband's crown. the great Nikka insurrection took Theodora. place. This was the greatest crisis in the career of Justinian. The rebels the Roman empire as co-regent. were attacking the palace, and every

one was making ready to flee-including the Emperor. But Theodora determined to stand

her ground. She refused to leave

diplomatic affairs, and was regard- As a result, the tide turned. The ed as equal in power to her husband. royal forces overcame the enemy and Theodora was not only beautiful, Justinian remained Emperor. Now, clever, intellectual and powerful, but more than ever, was Theodora's she was brave. At one time, be- power over her husband, the saved Rome as a nation, all the of-It happened in this way. In 532, ficials took an oath of allegiance to

Until her death Theodora raled

Autoist Falls to Pay For Gasoline; Fined \$25

Ogdensburg, N.Y., July 14.-James Brown, member of the crew of the government steamer Chillocothe, was fined \$25 in Watertown when he was found guilty of petit larceny for alleged failure to pay the owner of the Victor J. Tennant service station at Theresa the night of July 4th for five gallons of gasoline. He paid the fine. The arrest followed investigation of a report that while the owner of a car was receiving gasoline at the station the gasoline ignited and the car was wrecked, Mr. and Mrs. Tennant have started a joint action against the owner and driver of the automobile for damages to the station.

Reduction Does Not Affect Canadian Section

Ottawa, July 14.—The reduction in wages in shop trades, which had been put into effect on United States railways, will not go into force ca the Canadian section of the Michigan Central, pending an inquiry which is being conducted into the dispute between the company and its Canadian employees under the industrial dispute investigation act. Word to this effect was received by the minister of labor this morning in a letter by General Manager Shearer of the Michigan Central.

Daniel B. Lyman, Adams, N.Y., had his right arm amputated between the elbow and wrist as a result of injuries received on his farm, when he was cut by the knives of a mowing machine.

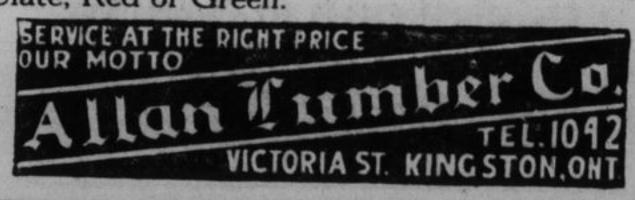
After being lost for three days and four nights in a fog on the Grand Banks, three dory loads of French fishermen were picked up recently by the French ship Jeanne D'Arc which reached Sydney, N.S., on Thursday.

Canadian business failures for the first half of the year totalled 1,635, with Habilities of \$30,069,829, in-

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FLASHLIGHTS

FOR SUMMER CAMPERS RADIO SUPPLIES for the BOYS' SUMMER HOLIDAYS HOME WIRING

167 Princess Street THE SHOW

To Recuperate Health. for a rest cure. Mr. Debs' health Terre Haute, Ind., July 14.—Eu- is good, but he has become worn creases, respectively, of 70 and 38 gene V. Debs left for Chicago out through receiving the constant per cent. over the first half of 1921. where he will enter a sanatorium stream of visitors at his home here.

"The National Way" Across Canada JASPER PARK LODGE Open to Sept. 15th. Canadian National Hotel Dept including Canadian Rockies, Jasper and Mount Robson Parks, and the Pacific Coast via the Triangular Tour, the finest rail and ocean trip on the continent. On sale to Sept. 15th, 1922 Valid for return to Oct. 31st, 1922.

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