



Superdyne Receiver

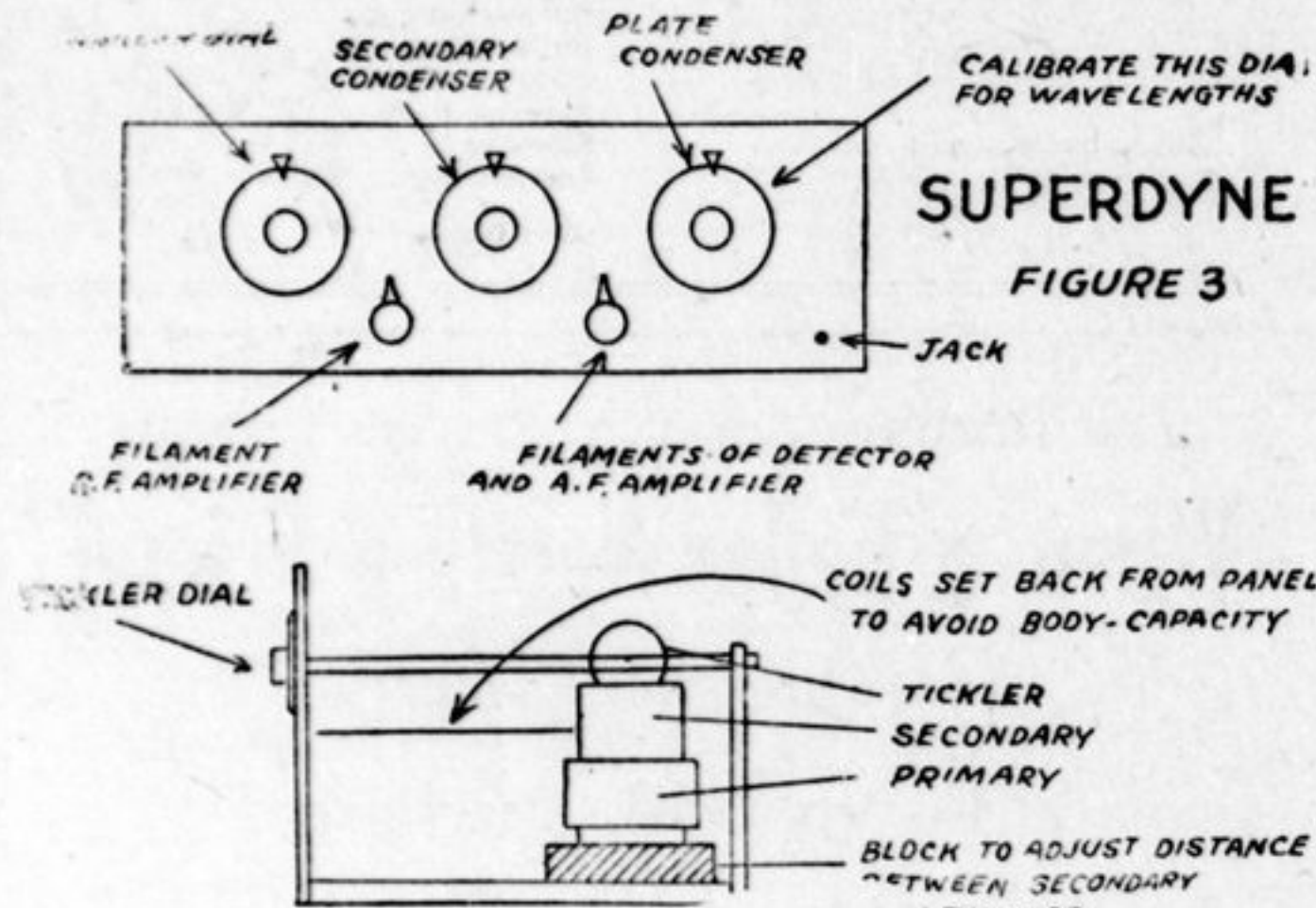
(Part Three)
By R. M. SHERRILL
(Radio Engineer)

The tickler coil rotates in the grid end of the secondary inductance. It consists of 20 turns of 24 gauge copper wire wound on a cardboard tube 2 1/4 inches in diameter. This core should be 1 1/2 inches long, and the winding should be spaced between turns as it was on the other coils.

The rotation of the coil is controlled by a 1/2-inch brass shaft extending through the panel and the cardboard core into a supporting bearing in the rear of the set. The connections to this winding are made through flexible leads. The secondary coil should be directly below the tickler and should rest on some adjustable support so that the distance between itself and the tickler may be regulated. The details are shown in Figure 3.

The details of the panel arrangement are left to the taste of the individual experimenter. It is suggested, however, that the general arrangement shown in Figure 3 be followed as it is especially necessary in this receiver, to keep the connections as short as possible. Also, it is advisable to keep the inductances well separated. The tuned plate coil should be kept away from the secondary and in this case the tickler is in a plane at right angles to the plane of the secondary.

It is advisable to use a separate



rheostat for the R. F. Amplifier tube, but if UV 201A tubes are used, all may be controlled by the same rheostat. With these tubes and 90 volts on the plate, a 3-volt C battery should be connected as was shown in Figure 1.

Logging

One of the very desirable features of the Superdyne receiver is that the dial of the condenser which tunes the plate coil may be calibrated for the various stations you are accustomed to hearing. Thus, once you get a station tuned in at its maximum strength, you can record this

secondary is completely in resonance with the plate circuit and the oscillation eliminated.

It is unnecessary to shield this receiver unless there is a strong interference from local stations. It is well, however, to set the secondary back from the panel by several inches to avoid the effect of body-capacity in tuning with the tickler.

Do not lose patience with this receiver because it does not work the first time you try it out. Give yourself time to become well acquainted with this circuit and its tuning, as the results obtainable with the Superdyne are worth this effort.

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RADIO QUESTIONS AND ANSWERS

Mr. Sherrill will be glad to help you solve your radio problems. Write him, care of The Durham Chronicle.

S. T. asks: "Will it be worth while to wind the tuning coil for my Ultra Audion with 8 gauge copper wire in order to cut down the resistance?"

Ans.—No. Using such heavy wire makes the inductances too large. Moreover, it will not cut down the radio frequency resistance.

B. E. G. says: "I bought some colloid for my radio coils, but the stuff is so thick that I cannot use it. Is there any way to thin it out a little?"

Ans.—Add ether to the Colloid when it gets too thick. Keep it tightly covered when not in use.

J. E. T. asks: "How can I connect up my headphones so that I can lis-

ten in on them while the loud speaker is being operated? The signals are too loud for my ears when the phones are connected in with the speaker."

Ans.—Try connecting your headphones in series with a 1/2 megohm grid leak to the same terminals that operate your loud speaker.

B. M. S. says: "My Baldwin head-set rattles badly when loud signals are coming in. Is there any way in which I can stop this trouble?"

Ans.—Sometimes this is caused by the metal armature touching one of the pole-pieces. If this is the case, the noise may be stopped by bending one of the supports of the armature until it stands in the centre of the space between the pole-pieces.

FORTY-SIX LESS

In the first three months of 1925, there were 46 deaths due to industrial accidents in Ontario. In the same period of 1924, there were 92 deaths. This decrease is quite extraordinary, especially when it is remembered that the number of industrial deaths in Ontario has averaged over 30 a month for the past several years. The value of these 46 lives can hardly be estimated, but the reduction, at least indicates that there is a little more care and thought being used by all concerned.

The total number of accidents reported to the Workmen's Compensation Board in the first quarter of 1925 was 12,655—also a noticeable decrease from the first three months of 1924 when there were 14,144 accidents reported to the Board. Accidents in the past three years have cost industry in this Province, in compensation payments alone, an

average of over six million dollars each year and, in this manner, have added to the tax burden that the Province must face. Compensation losses offer one point of attack in the effort to lower costs. Accident prevention makes greater returns to the employee whose life or limb is saved than to the employer whose compensation costs are reduced.

For the Sake of the Horses
A sergeant in the British Army, according to Punch, once lost his temper at a particularly awkward recruit.

"Never approach the 'osses from behind without speaking to 'em! he roared. "If you do, that thick 'ead of yours'll get so kicked we shan't 'ave nothing but lame 'osses in the stable."

How sweet it is to watch a know-it-all sweating over a seven letter word meaning something.

News of Nearby Towns

Interesting News of Country Round-about as Gleaned From Our Exchanges.

MOUNT FOREST

Mount Forest Horticultural Society met Tuesday evening of last week, when a very interesting report of the recent Ontario convention in Toronto was given by Mr. Howard Skales. The society has a membership of 180.

On Thursday, while rolling logs with a canthook at Murphy's saw-mill, Stewart Cummings slipped on some ice and fell, breaking his leg above the ankle. Both bones were fractured. This is the second time that leg has been broken, and the other leg was broken once, so that Stewart has been peculiarly unfortunate in this respect. He has suffered severe pain since his recent accident.

GRAND VALLEY

For Breaking Quarantine
A party in Arthur Township was up here before Police Magistrate Scott of Moorefield on Friday last charged with mingling with the public while under quarantine for scarlet fever to which he pleaded guilty, and as the penalty for this is a heavy one, and this being the first time a prosecution had been made, the Township Board of Health did not press for a fine, but the matter was arranged by the party agreeing to pay all costs, including the expenses of quarantine, amounting in all to something like \$200. People should remember that it is a serious matter to disregard quarantine or to violate any section of the Public Health Act.

CHESLEY

The council is having trouble in arriving at a unanimous decision as to who shall be the next night-watchman in town.

Military equipment and clothing belonging to D Company of the Bruce Regiment has been disappearing quite regularly from the Chesley armories for the past few years, and as a result, Major Davison, O. C. of the Company, has on more than one occasion been forced to whack up considerable sum of money to the Department of Militia and Defence to make good the deficiencies.

The latest articles to find their way from the armories were two Lee-Enfield rifles, and as it costs the Major around \$70 to pay for someone else's artillery, he objected to this continual draw on his finances with the result that on Tuesday of this week, a Corporal of the Royal Canadian Mounted Police was busy in Chesley trying to locate the missing fire-arms. We are not in a position to state just what the results of his search amounted to, but it's a safe bet that pilferers of military equipment are going to get into serious trouble if they don't quit their taking ways.

ELORA

Old Hen Mothers Three Tiny Pigs
For some time wonders have been reported from various parts of the country, but no report has yet told of a hen going into the hog-raising business. On one of the coldest nights during the recent cold snap, a young farmer near Metz found three young pigs had been added to his stock. He placed them in a box near the stove. When it came bedtime, he transferred the little pigs to a small keg lined with old rags. From his hen house, he secured a motherly old hen and placed her on the top of the little pigs. The wood fire went out during the night, and the kitchen was cold in the morning, but the little pigs were comfortable beneath the old hen who has assumed entire charge of the situation. She was as contented as could be with a small head poking out from under each wing. She continued in nightly charge of her wards until the weather moderated, and they were returned to their own proper parent.

ORANGEVILLE

Presented With Baton
At Friday night's practice, members of the Orangeville Citizens' Band presented Bandmaster Russell Morrow with a valuable silver mounted conductor's baton as a mark of their appreciation of his services. Mr. Morrow has built up a band of about thirty members. The organization is a credit to the bandmaster and the town and would do credit to places much larger than Orangeville.

Raspin Scott of Orangeville was elected President of the Ontario Amateur Lacrosse Association by acclamation.

Mr. B. Winter, inspector of Public Works, Toronto, was in town on Tuesday going over the post office building, which, as a result, is to receive a fresh coat of paint and other improvements.

Francis Lehman, an old resident of the town, died Monday morning in his 74th year. Interment was made at Kenilworth.

WALKERTON

Walkerton held its first 1925 lacrosse practice on Tuesday of this week.

Rev. Mr. Williams, Presbyterian pastor at Riversdale, was turning out Mr. J. Lee's gate near that village on Tuesday night in his Ford coupe, when another coupe, driven by a Durham man, banged into him. The side of Mr. Williams' car was badly dinged, the running board being smashed and the axle bent. The Durham coupe, which was a brand new car, sustained little damage.

The Citizens' Band let the contract for supplying the new band uniforms on Monday night. There were a number of tenders received, four from town and several from outside firms, the successful tenderer being Mr. W. H. McBurney, who will receive \$930 for 31 uniforms.

County Magistrate McNab, who reserved judgment after hearing evidence on three charges of violating the Egg Grading Act preferred against Hiscox and Mann, general merchants of Teeswater, will withhold his decision until after the Supreme Court has passed on an appeal from a conviction rendered in a similar case and which will come before it on April 22nd. The accused merchants claimed that their trial last week that they were merely acting as local agents or buyers for Loblaw's chain stores in Toronto, and on this ground contended that they did not come under the ruling of the Act.

County Magistrate A. E. McNab, who has been under medical care for some time for high blood pressure and accompanying complications, has been advised that a complete cessation from his official duties for several months is necessary to secure his restoration to health. As a consequence, he is being granted a vacation by the Attorney-General's Department, and a man to temporarily take over his magisterial duties will be appointed by the Department.

The first British family to come

into Bruce County under the terms of the Empire Settlement Act, lately enacted between the British and Canadian Governments, arrived in Walkerton last Friday night by C. P. R. in the persons of Mr. John D. Watt, wife and two children from Aberdeenshire, Scotland, they going to a farm between Glamis and Tiverton on the boundary.

After communicating with many of the surrounding towns and villages, the local Retail Merchants' Association has decided to observe Thursday afternoon as their weekly half-holiday from May 1st to October 1st. This is the day that Walkerton has been observing for some years, and we understand most of the surrounding places are falling into line and will observe the same day. However, this year there will be the half-holiday on Thursday, irrespective of whether a Statutory holiday falls within the same week or not. As a consequence, Dominion Day, which falls on a Wednesday, will be observed, as will also the next Thursday afternoon, the two coming with one week.

DUNDALK

Charles McConnell, a former well-known resident of Dundalk, died in Toronto on April 6th in his 81st year.

W. D. Mercer showed in his store last Friday a rare flower in this northern climate—a banana bloom sent through the mail by Mrs. Mercer's mother and sister, Mrs. Wylie and daughter, of Owen Sound, who spent the winter at St. Petersburg, Florida. The flower is a dull reddish shade with numerous petals and very large. The bud is nearly as long as an ordinary cornucop.

The March number of Musical Truth, published by G. G. Conn, Ltd., of Elkhart, Indiana, marks the golden jubilee of that well-known firm of band instrument manufacturers. This special edition contains an interesting history of the growth and progress of this big business from its inception in a small way in 1875. G. G. Conn, its founder, is still associated with the business, though now about 80 years of age. His photograph, with those of other officers of the company, occupy a place on the first page. The cover carries illustrations showing the remarkable growth in the factories during the half-century. There are numerous photos of Conn instrument users of prominence and a group headed, "Eminent Bandmasters who endorse Conn instruments," contains a good picture of our own J. T. Park, with the following note: "Joseph T. Park of Dundalk, Ontario, Canada, was bandmaster of the 22nd Regimental Band of Winnipeg which went overseas in 1916 and was later appointed bandmaster of the 19th Reserve Band in England. Three sons and a daughter now play professionally—and the whole family uses Conns."

HANOVER

Hanover Hospital Board requests a grant of \$1,000 from the Town Council, owing to the fact that it has had a rather slim year. The chairman of the Public Utilities Commission wants \$2,500 for water-works extensions.

The Board of Trade is making plans for its annual banquet to be held soon.

The Kerr shield, debating trophy, contested for by ten of the Universities and Colleges of Toronto, was won this year by McMaster University, and comes back to her halls after an absence of nine years. Dur-

ig the season, McMaster debaters met and defeated teams representing Trinity College, the Faculty of Medicine, the Royal College of Dental Surgeons and Victoria College. Mr. Clyde Dankert of Hanover, who is a student in history and economics at McMaster, debated last fall against Trinity and also last week in the finals against Victoria. In the negative of the following resolution: "That the future well being of Canada depends more upon a thorough understanding and practice of economic laws than of Christian ethics," Clyde has been elected president of the McMaster Debating Union for the next year.

Hanover customs house collected \$168,284.94 during the fiscal year ending March 31, 1925, an increase of \$14,114.07 over the preceding year.

HIGHWAY CONDITIONS THROUGHOUT ONTARIO

Concise Road Report Prepared by Ontario Motor League.

A report on roadway conditions along the main travelled highways of the Province has been prepared by the Ontario Motor League, as follows:

- Toronto to Hamilton—Lake Shore Road and Dundas Highway in good condition.
- Toronto to Niagara Falls—All in good condition. Road across Burlington Beach open for traffic.
- Niagara Falls to Fort Erie—Road open.
- Niagara Falls to Detroit—Via Dunnville, Jarvis, Tillsonburg and St. Thomas—open throughout.
- Guelph—Go via Dundas Street to Clappison's Corners, then north.
- Guelph—Owen Sound—Road in good condition.
- Guelph, Harrison and Kincardine—Open for motoring.
- Guelph, Elmira, Listowel and Wingham—Road open.
- Hamilton to Gall, Kitchener, Stratford and Goderich—Open throughout.
- Stratford to Sarnia—Road open.
- Hamilton to Caledonia, Jarvis and Simcoe—In good condition for motoring.
- Hamilton to London and Detroit—Open via Gatham and Sarnia.
- Yonge Street—Open to Orillia. East side of Simcoe open to Beaverton, Orillia, Coldwater and Midland—Open for travel.
- Kingston Road—Open to Quebec boundary. Soft spots may occur between Bowmanville and Port Hope while frost is coming out of the

ASK THIS HALIFAX NURSE

She is Willing to Answer Letters from Women Asking About Lydia E. Pinkham's Vegetable Compound

Halifax, Nova Scotia.—"I am a maternity nurse and have recommended Lydia E. Pinkham's Vegetable Compound to many women who were childless, also to women who need a good tonic. I am English and my husband is American, and he told me of Lydia E. Pinkham while in England. I would appreciate a copy or two of your little books on women's ailments. I have one which I keep to lend. I will willingly answer letters from any woman asking about the Vegetable Compound."—Mrs. S. M. COLEMAN, 24 Uniacke Street, Halifax, Nova Scotia.

Could Not Sleep Nights

Dublin, Ontario.—"I was weak and irregular, with pains and headaches, and could not sleep nights. I learned about Lydia E. Pinkham's Vegetable Compound by reading the letters in the newspapers and tried it because I wanted to get better. I have got good results from it and I feel a lot stronger and am not troubled with such bad headaches as I used to be and am more regular. I am gaining in weight all the time and I tell my friends what kind of medicine I am taking. You may use my letter as a help to others."—Mrs. JAMES RACHO, Box 12, Dublin, Ontario.

ground. Motorists advised to drive carefully.

Ottawa—Go via Kingston Road to Prescott and north.

Whitby—Lindsay—Open throughout. Cars also getting through to Bobcaygeon.

Peterboro—Open via Welland and Dale, and north from Port Hope.

Cooksville, Brampton, Shelburne, Orangeville and Owen Sound—Open throughout. Soft spots near Chatsworth.

Weston Road—Open to Schomberg and Tottenham.

Markham—Kennedy Road open throughout. Danforth Avenue, at end of pavement, closed for repairs until July 1st. For Markham follow Yonge Street to Lansing, and go east or north on Yonge Street to Langstaff, and east through Stouffville and Uxbridge.

Vaughan Road—Open throughout. Barrie to Collingwood and Owen Sound—Road open.

Mail Order Prices on Tires

RIGHT HERE IN DURHAM

Plus Our Service For Cash

COMPARE THE PRICE

Endurance . . . \$ 6.95
Nobby Cord . . . 8.95
Royal Cord, O.S. 10.95

SMITH BROS.

Sole Distributors Durham, Ontario

YOU WOULDN'T TAKE A MILLION DOLLARS

for the roses in your child's cheeks! Not if the price was pallor and languor. Yet that ruddy glow of health is the direct result of eating

GOOD BREAD

The loaf of big food-value because rich in quality ingredients. Serve it with milk, with pure fruit jelly, golden honey, or some other good spread. It's both food and dessert.

Henderson's Bakery

Thursday, April 16, 1925.

World News S At A Glance

Daily Events as Told by Condensed for Busy Readers.

Thursday

Six men were killed and wounded, 15 of them critics of the shell of a 12-inch gun prematurely on board the *Caio Duilio* yesterday. It was out immediately, but it was saved the vessel from disaster.

A remnant of Samaritanism, the literal rites of the Samaritans on Mount Gerizim, were reported in a despatch from the town of Nablus, six miles from the city of Samaria. Many visitors were attracted, including some Jews, and a riot occurred, resulting in a slight casualties.

Three non-commissioned were killed and one seriously wounded yesterday. Silesia, through an explosion of condemned hand-grenades, through an explosion of condemned hand-grenades. The four men, who had been safely dug out, emerged, thinking the pile of munitions not ignited.

The death of Khalassi, a Mesopotamian mullah, explains the law and order of the reported in a despatch from the town of Meshed. All the places of Meshed, where died, are closed off, and been sent to the provinces throughout Persia for close bazaars and general mourning.

Dock mechanical workers are affiliated with the Workers' Federation in Holland yesterday decided to proclaim their claim increased wages. The law and order of the management concerning their Three branches of machinery at the docks are all workers are expected to strike after noon. The value of is approximately 40 cents.

John Sandeman Allen, five M. P. for Derby West, of the Liverpool Chamber of Commerce, and prominent manager expert, speaking at the meeting of the Liverpool Chamber of Commerce yesterday, said that the Government appeared to have an impression that Chamber of Commerce would welcome the Control of Shipping (Foreign) Bill, and it is feared that really has that idea, it is disabused. Mr. Allen said: "Speaking at the old settlement, near Tiberias, yesterday, the Earl of Balfour making a trip through Palestine having inaugurated the University last week, urged the policy of the Government. Great Britain would use endeavors to facilitate the settlement in Palestine of a home for the Jewish people. No trace has been found of two British flying officers, been missing since a large plane fell into the sea off of Kent, near Bournemouth, day, and it is feared that Two other men were rescued from the wreckage. The hospital, one of them in condition.

Britain's contribution to the Anglo-American investigation of it is revealed today, will be in the next 10 years, besides of passages, which the Commonwealth Government share equally between the scheme aims at the settlement of 450,000 assisted emigrants in the United Kingdom, and 600 families averaging 10 each.

Friday

A provisional government, running for six months, signed yesterday between Czechoslovakia, assuming control of nation treatment of the.

Former Premier of Georgia, who has not yet returned from his recent trip to Madeira, yesterday at Southampton, Easter-tide reciprocity was accompanied by the Georgia.

The clash between Jews at Nablus on the occasion of the offering over sacrifice by the Jews was pointed out yesterday, was a typical incident essentially is an Arab Jew in which the Jews are hated.

Banking circles are pleased by the announcement by the Ministry of Finance that the capital of the National Bank, founded in 1920, in the Finance Ministry, the management of the bank entrusted to a Board nominated by the Ministry.

Donald MacLeod, 65, firm to the Canadian London reports that he offer to the Canadian to establish a ten-station vice for a subsidy of \$500,000 that the Canadian proposed to pay Sir W. Wilson for a steamship service England and Canada.

The results in the Moscow Soviet, which Tuesday, show that 2,550 and 1,508 members of were elected, among the 900 women. The parties will have 34 per cent total membership of the Soviet, as compared with last one.

An Exchange Telegraph received in London says that the Rapti Burma announces the Kalaw Hill station of