

## Jack Binns Tells How to Make a Transmitter

LESSON NO. 6.

[By Jack Binns.]

The first thing to do is to make the spark gap. Remove the brass nuts which you find on the top of the coil and replace them with the double binding posts.

### WHAT IS NEEDED FOR THE TRANSMITTER.

One so-called spark coil, which will cost about \$4.50.  
One so-called "strap-key" which electric houses sell for not more than 25 cents.  
Six old dry cells, which are thrown away in garages or electrical houses.  
Two ordinary drinking glasses.  
Two one-eighth inch round brass rods, four inches long.  
Two so-called "double binding posts."  
One piece of tin, four by six inches.  
Two small brass key chains, five inches long.  
Two small binding posts.  
One board, eight by eight inches.  
Some tinfoil.

which will screw on the bolts from which you have removed the nuts. The spark coil must be handled very carefully because the wires within are very fine and are easily broken.

Fasten the brass rods in the binding posts as (a) and (b) in figure 15, so that a spark can jump between their ends. This is the spark gap and it is

in the rear, in about the same position as the tuning coil was placed in the receiving set.

About two inches in front of the spark coil, spread the piece of tin, lengthwise, as shown by (c), fastening it to the board with small tacks. On this tin, place the two in tinfoil covered glasses, as shown by d and e. At the front of the board, and to the right, place the strap-key. Figure 15 shows the arrangement of these instruments.

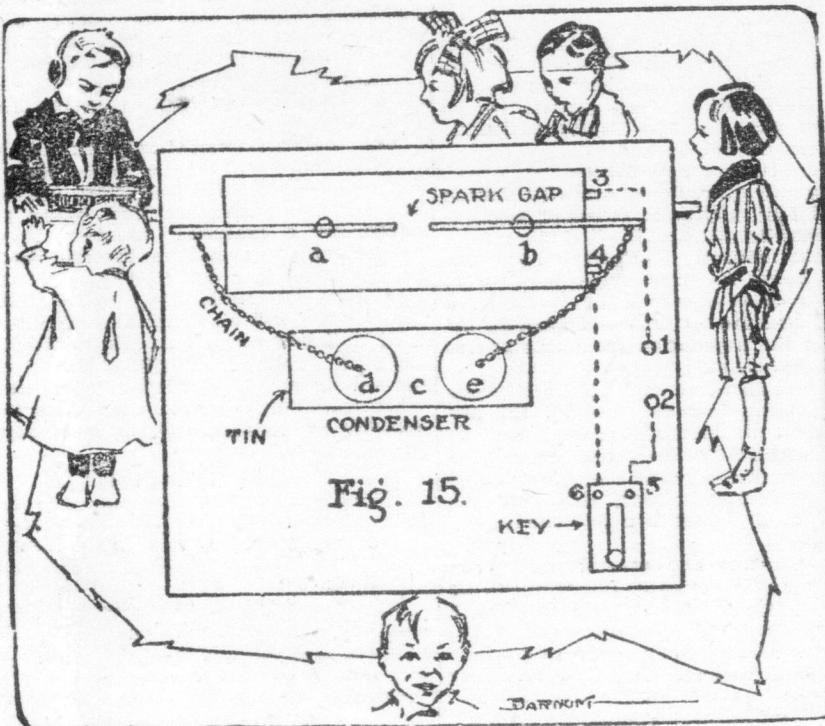
On the right edge of the board, opposite the glasses, place the two small binding posts, marked 1 and 2.

Now we are about to wire our instruments together. In the glass marked d, place the end of one of the chains, so that the chain touches the bottom of the glass. Fasten the other end of the chain—it can be hooked on by a link—to the end of the brass rod of the spark gap. The glass marked e is connected in the same manner with rod b. Connect binding post 1 with binding post 3 on spark coil. No. 2 is connected with No. 5 on strap key and No. 6 on strap key is connected with No. 4 on coil. Connect the six dry cells in series, with insulated wire, and place the batteries on the floor under the table. Connect the two wires from the cells to binding posts 1 and 2. Connect aerial with binding post d on spark coil and connect a ground wire, attached to gas or water pipes to b on spark coil.

Now, when you press your key you should get a short, white spark in the spark gap. If you do not, then move the brass rods to and from each other, until the best spark is obtained. If, still you do not get a spark, look at your battery connections and see if they are connected properly, and the wires fastened tight in the binding posts.

Now, when you want to receive messages, fasten your aerial wire to your receiving plant. If you wish to send messages, remove the wire from the receiving plant and attach it to the sending outfit. Never connect the sending and the receiving outfits together. Your entire plant by "burning it out," as the wireless men say.

Now learn the American Morse code, practicing on your instrument and, before you know it, you will be a full-fledged wireless operator.



the spark which jumps from one of these rods to the other that will send out your message to the world.

Now we must make a condenser. Take the two glasses and coat them inside and out with shellac and before the shellac is entirely dry, cover the top of the glasses, both inside and outside of the glasses. Be very careful to lay the tinfoil on smoothly—avoiding air bubbles. Allow them to dry thoroughly; overnight will be enough. These two glasses form the condenser.

Now we are ready to mount our spark coil and our condenser on the eight by eight board. This board ought to be nicely shakedown.

## NO ATTEMPT MADE TO MINE THE COAL

All the Collieries in the United States Are Now Closed.

## CONFERENCE NEXT

Anthracite Miners Expect to Receive Flat Increase of Ten Per Cent.

Wilkesbarre, Pa., April 1.—Mine workers' leaders tonight reported that the suspension order has been generally obeyed, that only engineers and pump runners were at work to-day and that none of the collieries made any effort to mine any coal. Officials of the big coal companies confirmed this report, and said they were not making any attempt to induce men to work, and that only enough steam to run the pumps and the fans was maintained at the mines. Whether this condition will prevail until the conference between the mine workers and the operators opens on April 10 is not known. It is believed here, however, that the larger coal companies will make no effort to mine any coal, that they will merely guard their property and await the result of the conference. These companies have sold all their coal, and report their customers have stocks for several weeks in their bins.

John M. Mack, secretary-treasurer of the Wilkesbarre-Scranton district, returned here today from Cleveland, Ohio, to direct the interests of the miners during the absence of President Dempsey. He predicts that the operators will offer a flat increase of 10 per cent. when the Philadelphia conference is held.

"This offer," he declares, "may not be the first to be made, but it will eventually come, and will no doubt be the limit of the concessions offered by the operators."

The rank and file of the miners will determine after the conference whether the offer is to be accepted or rejected. From the viewpoint of the union leaders a wage increase will not be sufficient to restore peace. More than a mere money consideration will be sought by the men. The union will waive all demands if recognition is granted. Officials of the union believe that the struggle will settle itself down to a question of recognition, the men strongly advocating it on the one side and the companies bitterly opposing it on the other.

If the representatives of the miners receive an offer from the operators on April 10 the proposition will be submitted to the men.

## MAPLE SYRUP WILL BE VERY PLENTIFUL

Expected That Price Will Drop Shortly to One Dollar Per Gallon.

[Special to The Advertiser.] Ingersoll, April 1.—Gathering the maple sap is now the principal occupation of the farmer who is so fortunate as to possess a "sugar bush." Although the weather yesterday was disagreeable, there was a copious flow of sap, and, according to reports, the syrup will be offered in plentiful quantities during the week if favorable weather continues.

Sunday was an ideal day, and maple trees that stand on the south side of a farm never gave forth a more plentiful supply. Some of the enterprising syrup-makers have already interviewed prospective customers and completed arrangements for the sale of practically their entire production. This, they claim, is a very satisfactory plan to follow.

In many cases they make conservative estimates of their supply, and should the amount be larger than anticipated, they have no trouble in disposing of it. They, however, find that being able to sell their syrup without standing for hours on the market is a big advantage, and naturally gives them more time for other work. It is expected that the ruling price this week will be \$1.25 a gallon, with a drop to \$1 very shortly if the supply is up to expectations.

## INGERSOLL FUNERAL

Many Places of Business Closed Out of Respect to Mr. O'Neill

[Special to The Advertiser.] Ingersoll, April 2.—Amid many manifestations of sorrow, the remains of the late Charles A. O'Neill, whose death occurred suddenly in his grocery store Friday night, were consigned to the tomb in the Catholic Cemetery yesterday. Hundreds of citizens gathered to pay their last tributes to the deceased.

## LOST VITALITY Caused by Kidney, Stomach and Bowel Disorders

St. John, N. B., Sept. 13, 1911.—My brother was a great sufferer from kidney, stomach and bowel troubles and was given up by two doctors. He was advised to try your Fig Pills, which he did, and after taking five boxes was completely restored to health and is better today than he has been for years. You can't recommend Fig Pills too highly. J. W. MANVIER. At all dealers 25 and 50 cents, or the Fig Pill Company, St. Thomas, Ont. Sold in London by Taylor Drug Company, 399 Talbot street.

# Big Sale in Basement Tomorrow

## Table Cloth Seconds, Sheetings, Cottons, Pillow Cottons, Towels, Towelling, Prints, French Cambrics, Cotton Sheetting, Cotton Voiles, Crepes, Cotton Foulards, Etc.

Tomorrow we will begin a basement sale, for which preparations have been going on for some months past, which will include many lines taken right from our regular stocks as well as numerous jobs or clearing lots for which our buyer searched the European markets, and to begin with, we would say that each and every item in this sale will be priced considerably under regular value, and many lines listed for tomorrow are almost at the half price mark.

**Basement Sales**—The object of removing all sale or underpriced goods from the department where regular goods are selling, is to make it easy for

customers who attend such sales to make selections and distinguish from regular lines. Long stretches of counters will be arranged in well-lighted basement on which all special sale merchandise will be sorted and grouped each by itself and everything found on these counters you will know are, as the tickets will indicate, at greatly reduced prices.

As this will be our first basement sale, we are determined it shall be the biggest event since the opening of the new building and will mark another epoch in the history of this business, and so the prices have been made, that the mere announcement of a basement sale at Smallman & Ingram's will crowd the counters at the opening hour. Be on hand at eight in the morning tomorrow and have first choice.

## Towels in Basement Sale

Specially purchased in Ireland for this sale. Get your summer supply while these stocks last.

Bath Towels—Special 25c quality, large size. Sale price, each .....19c  
Special Turkish Bath Towels, brown and white stripe, large size, .....25c each, \$2.75 dozen  
Large size, 20x38 inch real Irish Linen Hemstitched Huckaback Towels. Special at .....25c each, or \$2.75 dozen

## Battenburg Squares 39c and 59c

4 dozen 30-inch Battenburg Squares, lace-edge, with linen centre, extra good value at 75c; sale price, each .....59c

3 dozen 30-inch Battenburg or Lace Edge Centres or Shams. These are regular 59c Shams. Sale price, each .....39c

New stock "Horrickses" Bleached Sheetings, 72 and 81-inch widths. Specially priced, yard, .....35c, 40c

## Hemmed Sheets, \$1.25 Pair

Two sizes, 72x90, and 68x90 inch, good quality, all ready for use. Special, pair .....\$1.25  
368 yards Roller Towelling, brown linen, 18-inch width, red borders, all pure linen. Basement Sale, a yard .....9c

## 100 Dozen Dish Cloths, 3c and 4c Each

These are specially priced for this sale, two sizes .....3c each, 35c dozen, and 4c each, 45c dozen

# Wash Goods Mostly Under Half Price---Basement

Here is the greatest opportunity we ever offered at the beginning of the season. Prices such as are quoted here might be expected when clearing odds and ends at the end of the season. But our plan is to give you a bargain, if possible, when you need the goods, and not to hoard up goods that for some reason or another need to be lowered in price until the end of the season when you are supplied. Tomorrow in the basement you will find Mnsilins, Cotton Voiles, Cotton Suitings, Cotton Foulards, Prints, etc., some nearly half, some half and some at a third the regular price. Hundreds of yards to be cleared quickly. Come early and get your summer supply of wash goods and save at least the half.

## Dress Muslins 5c, Worth Up to 18c

About 400 yards Fancy Dress Muslins, in white grounds with spots, stripes and small figures; worth up to 18c yard. Sale price, yard .....5c

## Dress Muslins 10c Yard, Worth Up to 50c

Fancy Muslins and French Organdies, figured designs in all colors, lengths from 3 to 20 yards, about 300 yards total.  
25c to 50c qualities. Sale price, yard .....10c  
Also a few ends of Crepe to clear, at yard .....10c

## 15c "Hard-to-Beat" Prints 8 1/2c Yard, 12 Yards for \$1

A big assortment of odds and ends, mostly champagne grounds, with colored spots and stripes, to clear at yard .....8 1/2c

## Remnants French Cambric Half-Price

All short lengths from 2 to 5 yards, slightly soiled, best 25c quality French Cambric. Sale price, .....12 1/2c

## Cotton Voile 19c, Regular 35c

200 yards Striped Cotton Voile, handsome effects in colors of mauve, pink, sky, champagne, Saxe and cream, 27-inch. Regular 35c, to clear at, yard .....19c

## Panama and Poplin Suitings 19c, Worth Up to 35c Yard

Plain colors on tan, mauve, purple, Saxe, champagne and black, 30 inches wide, regular 25c and 35c yard. Sale price .....19c

Special line of Irish Dimity, in colors of sky, mauve, pink, gray, cream and black. Sale price, per yard .....15c

## French Foulards 19c, Regular 35c

100 yards light color ground Dress Foulards, with small figured designs, all 35c quality. Sale price, per yard .....19c

Sale Begins Wednesday Morning in Basement.

APRIL SHOWERS:  
SEE SPECIAL UMBRELLAS; MEN'S  
AND WOMEN'S, \$1.00 EACH.

**SMALLMAN & INGRAM**  
LIMITED

YOUR EASTER GLOVES—SEE OUR  
"SUZETTE" WHITE WASHABLE KID  
GLOVES, \$1.50 PAIR.

respect, while along Thames street blinds in many places of business were drawn as a mark of esteem.

The general delivery from the stores which starts at 9 a.m., was postponed until after the funeral, and in various way citizens showed their appreciation of the sterling qualities of the deceased. The cortege was large, and the services most impressive. Re-

quiem high mass was sung by the Rev. Father Guam, of the Church of the Sacred Heart, who in closing spoke in eulogistic terms of the life of Mr. O'Neill, which he characterized as an open book, read and known to all.

The pall-bearers were Messrs. John E. Boles, John Lenthian, M. Shannon, Peter Sherry, S. King and Chas. White. Scores of floral tributes bore testimony

to the popularity of the deceased, among them being handsome designs from the Ingersoll curling club, the town council, who attended in a body, and the Ingersoll Amateur Athletic Association.

The funeral of John Gaynor, formerly of this town, whose death occurred at Woodstock on Sunday, took place here yesterday afternoon from

the undertaking rooms of Bonesteel & Mitchell to the Ingersoll rural cemetery. Rev. H. B. Christie conducted the service.

A union meeting of the Young People's Societies of the Baptist and Presbyterian Churches was held last evening. The attendance was large, and the Baptist young people, being the visitors, were most cordially wel-

comed. A splendid programme was furnished, which, together with refreshments, made the evening most enjoyable.

**Shiloh's Cure**  
quickly stops coughs, cures colds, heals the throat and lungs. 25 cents.