

For Marconi and the Romance of Wireless.

DISCOVERIES ON THE WAY.

... at an early stage of progress the question of how electric waves can bend right round the globe as to be received with ease at the Antipodes, instead of being off into space, Senator Marconi said that the hypothesis now generally accepted is that the waves are reflected by what is called the "ionosphere" layer, which is supposed to be a conducting layer of ionized gases, constituting a kind of shell concentric to the surface of the earth, and capable of reflecting electric waves. It would constitute electricity a kind of curved ceiling, at a distance above the earth, reflecting electric waves, preventing in these findings themselves enclosed between two conducting surfaces, from which they would escape. This and other theories have never satisfactorily explained to my mind, why waves of a length will cover great distances by daylight, whilst others will cover similar ranges at night.

Effect of Day and Night.
... the course of tests carried by me between the wireless station at Poldhu in Cornwall and the North Atlantic, as long as February, 1902, I then noticed for the first time the effect of day on the propagation of electric waves of about 2,000 metres in length. Although during the day I failed to get up to a distance of 2,000 miles, I subsequently ascertained that longer electric waves of order of 10,000 metres or more on the average, work as well as by night between England and America and other distant places, and now I believe that it has been universally accepted that short waves, whilst often giving extraordinary ranges by night, are inferior to long waves during daylight.

Why Scatter Waves?
... people agree with me that waves are far too valuable to be broadcasted in all directions, especially when it is desired to communicate only with one particular station and I do not understand why, ample messages which may be sent for Canada or South Africa be scattered simultaneously in all directions, well all over the rest of the world, that is, over all the Continent of Europe, over Asia, South America, Australasia and New Zealand, and speak of practically all seas and oceans.

... can well understand the utility of non-directional stations for naval and marine purposes, and for broadcasting; but for efficient communication between fixed places, or between one station and another, I think the right method is to do, if possible, from the point of view of secrecy and economy, is to concentrate all directed energy into a beam directed towards the country or place which it is desired to communicate. The number of available waves is, after all, very far from unlimited, and if a wavelength is being utilized for communicating between England and America, it should necessarily be allowed to be used for Africa and America, it is most probably interfere with the use of that wave in these countries, and also debar our use of that same wave for communicating simultaneously with them.

It Works.
... described many of the tests carried out in connection with the general short-wave beam system, Senator Marconi went on to say that, in the limitation of the period of time to practically the hours of daylight, still the economical advantages, together with the reliability and possibility of working this system at greater speeds than would have been feasible with the well-known long-wave system, it is the short wave beam system which is capable of transmitting a far greater number of words per 24 hours than the long wave system. It is possible, by the comparative simplicity, compactness, and external, cumbersome, and expensive stations actually in use, or which were planned to be used, for commercial communications. He added, "a satisfaction which is able to state that the stations set up for this purpose in England, and now erecting under a contract with the Post Office, and to be installed in the principal stations and far distant countries, will be on the beam system." The experiments conducted during the summer between Poldhu and the Azores, were described as "experiments which, as Senator Marconi reported, enabled them to discover that the short range of practical communication over long distances, is being rapidly as the waves are reduced.

Long Waves Uneconomical.
... now firmly convinced that the

Baird's Better Bargains



Claim the Attention of the Thrifty

That January is a month of Saving possibilities was proven by the crowds that patronized this Store during last week's Sale Days. And the Store is certain to be crowded this week-end, by reason of its continued offerings—Friday, Saturday and Monday are 3 sure and certain Economy Days, destined to bring heaping returns for every dollar expended. It is a Clearance Sale you can only appreciate by attending.

FRIDAY, SAT. & MONDAY

SILK CREPE-DE-CHENES Away less than Half Price

Takes but a moment or two to announce it—but to master words to bring to your realization the beauty, grandeur and the value of these charming Silk Crepe de Chenes is indeed difficult. It is a marvellous offer. "Grasp it! Come! See!" and handle these rich weaves to-day; shades of Amethyst, Turquoise, Grey, Reseda and Russian Green, Nigger and Purple, etc. Up to \$2.75 yard.
Special \$1.49 yard
STORM VELS—The "Nora" Storm Velt comes in fine Net, easily adjusted to go right over Hat; shades of Navy, Nigger, Purple, Castor, Grey and 39c.
DRESS PANELS—All Silk Panels, with crochet tops and silk tassels, very newest for afternoon and evening Dresses; shades of Navy, Sand, Brown, Black and White; values to \$4.50. **Spec. \$1.98**

Ladies' Rubbers
Just 100 pairs of them, first quality Rubber. Storm style, Spool heels, mixed sizes. Regular \$1.15. **Special 39c**

Youths' Boots
A Snap in Dark Tan Boots of good wearing quality. Rubber heels and heavy leather sole. Blucher cut; sizes 9 to 13½. They're **Special at \$1.98**

Girls' Scarves
Great broad comfort Scarves. Brushed Wool finish with Satene lined backs, shaped end with silk braid and tassels. **Just for Friday, Saturday and Monday, 50c**

Girls' and Boys' JERSEYS 1.49
Pull-Over style, warm snug-fitting Coloured Wool Jerseys; some very pretty Light shades as well as Browns, Greens, Navy, Sage, Fawn and Grey. Some with striped Polo collar and cuffs, three button front; to fit up to 12 years. Unusual value.

Pillow Cases, Bolster Cases
PILLOW CASES—Very Special Value in quality Pillow Cases, 20 x 30 inch size; linen-buttoned. **59c.** 75c. value. **Special**
BATH MATS—Large Heavy Blue and White and all White Turkish Bath Mats; some slightly im- **79c.** paired; values up to \$1.25. **Special**
PILLOW CASES—A Special Lot—only 2 dozen of just the loveliest hemstitched and embroidered White Linen Pillow Cases, linen buttoned, full size. **\$1.47** Regular \$1.50. **Special**
PILLOW CASES—Several dozen of plain American White Cotton Pillow Cases, standard size, strong and serviceable. **Special each 49c.**
BOLSTER CASES—English Bolster Cases, the quality is splendid, linen buttoned end. Just 18 of them to clear Friday, Saturday and Monday **85c.**



Finely Pared Prices from the Men's Section

BOYS' COMBINATIONS.
Mottled Grey fleece-lined Under Suits, neatly finished, buttoned front, ankle length and long sleeves; to fit from 9 to 16 years. The **\$1.39** **Special**
TOP SHIRTS.
Winter weight Khaki Union Flannel Shirts, with collar and pocket, unusually strong and warm. **\$2.30** **Special**
TOP SHIRTS.
Plain Cream Linen Shirts, each with detachable soft collar, French cuffs; a nice change from the ordinary top shirts. **Our \$1.59** **Special**
MEN'S UNDERPANTS.
A mixed line in assorted makes, much better than the ordinary fleece lined; all sizes from 36 to 48. **\$1.15** **Special**
MEN'S GLOVES.
Nice line of Men's Tan Kid Gloves, lined, with one dome wrist. **\$1.89** **Very Special Value at**
MEN'S BRACES.
English Braces of reputable quality, heavy quality elastics, strong light fastenings and nickel mountings. **Special 59c.**
SOFT COLLARS.
In a nice Cream shade, semi-soft style, an "Arrow" product, smart shape. Now is the time to buy them. **Special each 14c.**
BOYS' JERSEYS.
English Wool Jerseys in the larger sizes, fitting up to 16 years. Girls or boys can wear this style, with Polo collar, plain and striped. **Values to \$2.00, Special \$1.49**

For Fancy Workers

In beautiful texture White Linen, a pleasure to embroider upon, specially ordered for the purpose. The Cloth **95c.**
COTTON TABLE COVERS—Fancy Green and fancy Crimson Stamped Cotton Table Covers, 34 x 34 size, alright for smaller tables. Reg. 80c. **Special 49c.**
BRUSH MOPS—Everlasting wear, from these most serviceable of Mops, can be used as brush as well, wash after use and they are as good as new again. **59c.**
COTTON BLANKETS—54 x 74 size; nice for top or under sheets winter time; assorted stripe borders. The pair **\$3.15**

GLOVE VALUES

we are proud to offer
LINED GLOVES.
Ladies' Lined Black Kid Gloves, 2 dome wrist, double weight. These are of unusually good quality. Reg. \$4.25. **Friday, Saturday & Monday \$3.98**
KID GLOVES.
Great value in Ladies' Black Kid Gloves, an assorted line, bringing values up to \$1.40. The smaller sizes only. **Special 89c.**
CHILDREN'S MITTS.
Just what they need for out sliding and skating—heavy knitted Wool Mitts; shades of Cardinal, Navy and Grey. **Special 47c.**
LADIES' FABRIC GLOVES.
These are double weight, can be washed over and over again without impairing their quality; all White Black stitching and one button wrist. Were 65c. pair. **Special 39c.**
CHILDREN'S GLOVES.
Wool Gloves with long double weight gauntlet wrist, plain and striped; assorted shades and sizes. **Special 59c.**
MISSIS' GLOVES.
English Wool Gauntlet wristed Gloves, in plain shades with fancy gauntlet wrist; assorted sizes. **Special 69c.**
Men's Boot Special
Dark Tan Boots, equipped with rubber heels, "Goodyear" welted; a distinguished looking Boot and we guarantee it for all round satisfaction. **Special \$4.25**
STAYERS' BOOTS—Laced and Buttoned Kid Boots, choice of Black or Tan, soft Kid make, with substantial sole and heel; sizes 3 to 6. **Special \$1.18**
MEN'S RUBBERS—Reputable grade of men's high cut storm Rubbers, with Red Rubber sole and heel, famous for their wearing quality; all sizes. **Spec. \$1.65**

The following are typical of our Special Hosiery Values

They're particularly good just now
LADIES' HOSE—Fancy Jazz Hosiery, very latest effects in English style, plain finish, very fine-range. **Special \$1.39**
BOYS' HOSE—Just in—Heavy Ribbed Fastback Wool Hosiery, wears remarkably well, suitable for Girls or Boys. The Smaller Sizes **55c.** The Larger Sizes **59c.**
LADIES' HOSE—Plated Silk Hosiery in assorted shades, Lisle top toe and heel, unusually heavy weight silk. **Special \$1.48**
"SPORT" HOSE—Cashmere weight, plain and ribbed, charming range of shades and pretty heather mixtures. Dollar Line. **Special 89c.**
CASHMERE HOSE—Ladies' sizes in pretty heathers, plain with clocked effects. Just for Friday, Saturday and Monday **49c.**

Sale of Corsets 1.98

One of our extra specials in this week's sale—High Grade Corsets in strong White Cord; sizes 21 to 28; high, medium and low bust; long and medium hips, 6 suspenders, lace and embroidery trimmings, elastic at back. Clearing at **1.98**
CHILDREN'S UNDERPANTS—White Jersey Underpants, ankle length, closed; fitting 4 to 10 years. To Clear **35c.**
FEATHER MOUNTS—A very special assortment of these listed for clearance this week; pretty effects with Osprey finish. Regular 55c. **Spec. 29c.**
PANTALETTES—Children's Fleece Jersey Pantalettes, Black only; buttoned at hips and ankle, elastic at waist. Regular \$1.70. **Special \$1.08**

Ladies' New-Knit Underwear 4.00 Garments for 1.75

All Wool Vests and Underpants, Cream shade; very superior grade; the Vests with low neck and half sleeves, Pants ankle length, open and closed. Were \$4.00 garments. **Friday, Sat. & Monday \$1.75**
KNITTED WOOL CAPS—Children's and Misses' sizes; great heavy wool make, nice colourings, with heavy rolled up brim; plain and brushed wool effects in the lot. **65c.** Very Special
DRESSING GOWNS—Indispensable for mid-day at this season; this line comes in pretty Grey shade, V neck, silk finished, girle and pocket; long sleeves of course. **\$4.75** Reg. \$8.50. **Special**

Ladies' Dresses 12.50 Regulars for 8.98

Beautiful models in Silk and Serge, long waist effect, with accordion pleated panel and buckle; fancy silk waist, rolled collar and short sleeves; Navy and Sage shades, sizes 16 to 42 bust; fall importations. **\$8.98** Reg. \$12.50. **Special**
PANTIE DRESSES—Cute little models in two tone Serges, to fit 3 to 8 years; round neck, long sleeves, embroidered in wools and applique work. Reg. \$5.00. **Friday, \$3.49** **Saturday and Monday**
FLOCK WOOL—Highly Mercerized Wools in gorgeous shades Golden Brown, Lavender, Emerald, Silver Grey, Geranium, Pastel, Old Rose, Sage, Old Gold, etc.; beautiful Wools for making up hats, sweaters, scarves, gloves and embroidering; the ship. **59c.**

James Pairs LIMITED

Blankets on Sale

COTTON BLANKETS—Baby Cotton Blankets, 26 x 36 size; Pink or Blue striped borders; each **19c.**
WOOL BLANKETS—This line brings you best grade English Wool Blankets in full size and full weight, not many pairs, "is true". Regular \$12.50 pair. **\$11.89** **Friday, Sat. & Mon.**
CRIB BLANKETS—This is a mixed line in Flax, patterned, assorted colours, 32 x 40 size, worked edge, extra heavy. **Spec. 65c.**

beam stations employing only a small fraction of this power, and much lower and fewer masts, will be able to communicate at practically any time with any part of the Empire, and I cannot refrain from expressing my strong personal opinion that these powerful longwave stations will soon be found to be uneconomical and comparatively inefficient in so far as long-distance commercial communications are concerned. What remains now to be done is to complete the systematic study of these waves, especially in regard to their transit or propagation through space. They open up what I believe will prove to be a most fertile field for the investigator, and an entirely new horizon to our view.

Marconi and Broadcasting.
"All the civilized world is now interested in what is called broadcasting, and in England alone over 1,000,000 receiving sets have been licensed by the Postmaster-General. The results obtained by amateurs have often been of great value in helping us to come to somewhat better understanding of the phenomena involved, and might remind you that amateurs have recently been able to carry out two-way communication with New Zealand for brief period. It may well be that the day is fast approaching when the practical range of broadcasting will be enormously increased, and that American stations will be heard with clearness and regularity even during what lawyers call 'reasonable times', that is, during the day and early afternoon. At present, as everyone knows, one is usually obliged to listen for them very late at night or during the small hours of the morning. It is also quite reasonable to expect that it will soon be possible for an important speech to be broadcast even to the most distant parts of the Empire irrespective as to whether it is made during daytime or darkness. The wireless transmission of pictures has already been effectively realized between New York and London. One would have to be very bold indeed to forecast what may be the future limitations of radio transmission."—Public Opinion.

Making the Budget

How Our Financial Affairs are Conducted.
The Treasury, a building in Whitehall, is the financial office of the State. There are five Lords Commissioners of His Majesty's Treasury, and it is their duty, assisted by the permanent staff, to prepare all financial measures and raise the monies necessary to meet Imperial requirements. The first Lord High Treasurer was appointed about 1213, but his duties have devolved upon the Chancellor of the Exchequer in the present day, who is in reality the supreme Lords Commissioner. Without the consent of the Lords Commissioners there can be no increase in public expenditure. It is the duty of the Chancellor to explain to the House of Commons the estimates prepared by himself and his colleagues of the sums required for the nation's expenses, and the proposals for raising such sums. This is what we mean when we say "The Chancellor introduces the Budget." The original word, by the way, was "bougette." This was used when Norman-French was the language of our Parliament, and means literally a bundle—a very natural expression to apply to the voluminous papers brought in by the Chancellor. Our financial year begins at present on April 1st. When dealing with finance, the House sits not as a Parliament, but "in committee," although it may be a committee of the whole house. This means that the Speaker vacates the chair. The Budget is dealt with by two Committees, one known as the Committee of Supply, the other as Ways and Means. "Supply" considers the estimates submitted for the various Government departments, and authorises the money to be spent upon them. "Ways and Means," as its name indicates, deals with the methods by which the required millions are to be raised. Any changes in taxation are announced by the Chancellor at the end of his Budget speech, which means after 4 p.m., at which hour the Custom house closes. This is to prevent attempts being made to rush goods through and escape increases. The Chancellor casts his suggestions for taxation into a series of Resolutions. These are accepted or rejected by the Committee of Ways and Means. When passed, these resolutions are reported to the House, the Speaker returning to the Chair. **Express Passengers.** The following passengers crossed over to Fort aux Basques by S.S. Kyla at 8.15 last night and joined the express:—T. Parker, W. King, I. Rosdoker, E. Paquin, T. W. Woods, J. Dwyer, A. Parsons, J. Hynes, G. P. Fisher, Mrs. A. Fisher, Miss C. Hann, G. Lutanier, C. Brennan, A. C. Burridge, C. LeMoine, D. and Mrs. Miller, P. Sasseville, T. H. Shirley and J. Santons.