At the end of February 1905, the torpedo-boat destroyer "Ferret" was fitted with a set of apparatus. At first the ordinary receiving box was used, and was set up on the stokers' mess deck forward, but as this entailed the gear being removed every evening and set up again next morning it was decided to stow it aft in the ward room.

The vibration when under weigh being found exceedingly troublesome, a system of spring suspension has been adopted, and instead of the ordinary receiving box, a Marconi relay, with Service tapper, inker, cells, and jigger are mounted on the inker stand, which is enlarged one inch each way.

This has been found to work satisfactorily in all weather.

No opportunity has presented itself for any thorough long-distance test, but strong clear signals have been exchanged in rough weather between the "Ferret" off the Lizard and the "Defiance," a distance of 47 miles, three being over land, and it is certain that communication could have been kept up further if the "Ferret" had not run right in under the high land round Poldhu. The mast on this occasion had a severe test, as the weather was very heavy.

The "Ferret" has, however, been constantly utilised with "Defiance" for instructional purposes in wireless telegraphy, always keeping in communication while running torpedoes in Cawsand Bay, and also when sent out for experiment or practice only.

The magnetic detector has been tried, but without success when under weigh.

Attempts have been made to increase the sound by the use of phonendoscopes, stethophones, &c. None of these were any improvement.

The height of the "Ferret's" mast has been increased to 75 feet, and the aerial used is a fourfold roof 180 feet, fed in the centre. Torpedo-boat No. 98 has been fitted with similar gear, which is stowed in the warhead magazine, and is so placed that, without disturbing the gear, there is ample room for the operator and stowage for three warheads.

Her mast has only been increased to 42 feet in height, and the aerial used is a twin 180 feet roof, fed in the centre.

This installation is recent, and it has not yet been determined whether occasional failures to keep communication are due to land screening having a larger effect with so small a height of aerial, or to other causes.

Two local offices have been constructed in the "Cleopatra," according to the "Vernon" pattern, and are working entirely satisfactorily. They have been in use since July.

Two magnetic detector buzzer working offices have also been fitted up, and are found very useful for instruction in receiving with the magnetic detector. These have been in use since last June.

Magnetic key.

(1.) The speed and ease of signalling are enormously increased.

(2.) The contacts wear very much better, sparking very rarely taking place, either at magnetic or Morse key contacts, as a consequence of which no readjustment of the magnetic key has been necessary during two or three months' constant use.

(3.) The length of the maximum spark obtainable has not been found to be reduced by it.

(4.) The ordinary signalling key could conveniently be removed and a lever for breaking receiving circuit, &c., mounted on a small wooden stand and placed in one of the mains.

(5.) It is distinctly suitable for Service use, being easy to understand, adjust, and work with, and occupying little space.

(6.) No peculiarities have been observed.

Tuned shunts.

Experiments with these are being seriously handicapped by the local conditions.

It is almost impossible to obtain an efficient rejector; the length of leads before direct earth is obtained acting as an inductance in series with the capacity of the rejector, apparently turns most combinations of rejector capacity and inductance into acceptors, and signals are entirely lost.

Rejectors have been obtained for both Rame Head ("B" tune) and Poldhu, but these vary very greatly in efficiency from day to day. Plugging the rejector into the circuit will one day make very little difference to the sound of signals, and on another, will cause them to die out almost altogether, both days being with precisely the same adjustment. The following are instances of results:—

1*st Resonance.*—Aerial twofold 168 feet.

L 4 = 0
L 3 = 0
L 2 = 7th contact.
M.D. = 75 mics., roughly.

Added 2 on L 3 and 10 on L 2 for M.D.

2*nd Resonance.*—L 4 = 0, L 3 = 2, L 2 = 17 } Acceptor capacity = 7·75, M.D. as before.

Rejector 1.—L 1 = 5 + ¼ Ring.
S = 12·5.

Rejector 2.—L 1 = 5 + ½ Ring.
S = 25.

These rejectors were both good on the 25th September, since when they have varied as before stated.

Poldhu:—

Too strong for any nice adjustment of acceptor:—

L 4 = whole, L 3 = 16, L 2 = 15, Aerial } S = 12 M.D.

Rejector 1.—L 1 = 18 + ¼ Ring.
S = 100.

Rejector 2.—L 1 = 14 + ¾ Ring.
S = 125.

These rejectors also vary in efficiency from day to day.

Great difficulties lie in the path of experiments and trials in wireless telegraphy, owing to screening and lack of efficient earth already referred to. Attempts are still being made to improve the latter.

Slip rings on a motor have been experimented with, and are now fitted to an 80-volt 400-ampére dynamo which is being tried as an alternating generator.

Trials are being carried out with coherers, shielded otherwise than by the large brass box at present in use. The object sought is to reduce the weight of receiver box to the minimum for slinging purposes in torpedo boats and torpedo-boat destroyers.

With regard to instruction, it is suggested that the marks allowed for the wireless examinations are too few, only 25 out of 1,200 being allowed in the case of torpedo instructors qualifying, and this is hardly in proportion to the importance of this subject.

Extract of Experiments.

Aerials.

Trial of "T" Aerials for "A" Tune, "Vernon" and "Furious," March 27th and 30th.

"Vernon" sent "A" tune on a "T" aerial, an insulated triatic stay aerial, and a standard fourfold, each separately tuned. "Furious" received on a "T" aerial, a standard fourfold using the whole four parts, also half the aerial as a twofold. The ordinary "A" tune jigger was used for receiving. On the 27th, when the "Furious" left Portsmouth by the western entrance, nothing could be received beyond the Needles. First aerial trial.

On the 30th the "Furious" left by the eastern entrance, and the maximum distance was about 20 miles. "Vernon" and "Furious" both using "T" aerials, and about 10 miles both using fourfold aerials.

The experiment was thus not successful, but it confirms the very marked screening effect of land on "A" tune.

The apparent superiority of the "T" aerial may have been due to the waves being 500 and 600 feet with it, and therefore longer than with the fourfold.

Trial of Split "T" Aerial for "A" and "B" Tunes, "Furious" and Shore Stations, June 21st, 23rd, 24th.

The "Furious" carried a standard split fourfold and a split "T" aerial, each "roof" being 100 feet long, feeders 144 feet, and 218 feet, Culver using a 180-feet twofold. Second aerial trial.

The "T" aerial gave slightly better results than the fourfold on both "A" and "B" tunes receiving and sending, but the difference was small.

Similar tests were carried out between "Furious" and Scilly, Rame Head, and Portland Bill, showing that the split "T" aerial was slightly the better for sending and receiving "B" tune, but not quite as good as the fourfold for sending and receiving "A" tune.

The "B" oscillator and both jiggers were quite out of tune when the "T" aerial was used, and the "A" tune wave given off by the "T" aerial was too long for the twofold used for receiving it. So that the "T" aerial would be undoubtedly better than the fourfold if jigger and oscillator were adjusted for it.

Comparing "T" and Fourfold Aerials for Medium Wave of Small Power, "Vernon" and "Furious," March 27th and 28th, 1905.

The "Vernon" sent a 2,500-feet wave, using plain aerial with an induction in series. Two aerials were tried, an insulated triatic stay and a "T" aerial.

The "Furious" received on a standard fourfold and a "T" aerial roof, part being 180-foot single, using a magnetic detector and tuner. The experiment was considerably interfered with by jamming.

Conclusion.

The "T" aerial was better than the triatic stay, and earthing the two ends of the latter decreased range slightly. Distances, "Furious" receiving on fourfold aerial:—

"T" aerial, triatic stay insulated	60 miles.
" " " uninsulated	53 "
Triatic stay aerial	46 "

The differences were not noticeable when "Furious" used a "T" aerial, the distance being 75 miles with "T" aerial, triatic stay insulated, and with triatic stay aerial.

Experiments with Wireless in H.M.S. "Zephyr," 24th May 1905.

Aerial.

The following gear was fitted in the "Zephyr":—Roof 180 feet double, spread 6 feet to 3 feet, single feeder 55 feet, the mast being increased in height to 46 feet.

Sending.

Plain aerial with half a jar in series, wave length 670 feet.

Receiving.

A magnetic detector with special small tuner, and a small box specially constructed for use in submarines with an "A" tune jigger. The gear was fitted on the mess deck the ship's lighting circuit being used for power.

Conclusions.

The gear had a range of 40 miles on the coherer. The vibration at full speed was not a serious difficulty. The magnetic detector was very much interfered with by the noise on board.

That a set of wireless instruments suitable for destroyer work with an efficient range of 30 miles would weigh about 400 lbs., including all stores, &c.

The Electro-Static Syndicate.

Electro-Static Syndicate.

Extract of Report on the Interference caused by the High Frequency Gear used by the Electro-Static Syndicate for cleaning Blast Furnace Gases.

A set of this gear is installed at the Seaton Carew Ironworks, West Hartlepool. H.M.S. "Niger" measured the interference due to its working, August 1905.

The Syndicate use a tuned sending circuit with oscillator. The primary is of about 0·75 jars with a 2-cm. spark.

The secondary is connected to a wire which is carried into the pipe conveying the waste gas from the blast furnaces.

This wire brushes, and causes the dust suspended in the gas to collect into small groups and to deposit, the cleansed gas being used for heating purposes.

The gear is fitted in an earthed iron hut.

It had no effect on "A" or "B" boxes in sensitive adjustment at two miles. A faint buzzing could be heard in a magnetic detector tuned to a 600-feet wave at 2¼ miles, and nothing at greater distances.

Experiments with an Improvised "C" Tune rigged in "Vernon," June 16th, 22nd, and 23rd, 1905.

First "C" tune experiment.

The following transmitting gear was arranged to carry out preliminary experiments with a view to finding the best gear and arrangements for a new tune of greater power than the present "B" tune, and suitable for installation in a ship.

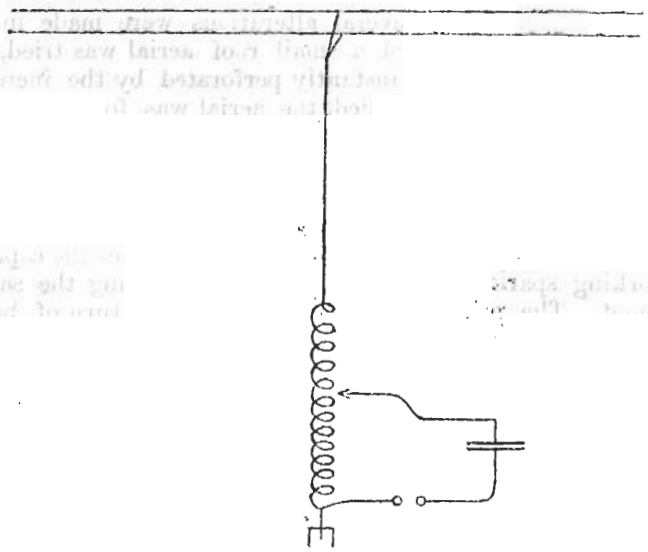
Power was taken from the lighting circuit through a rotary converter, giving an alternating current of 70 volts and 35 periods per second. This was stepped up by a transformer to 140 volts and used with a pair of ordinary coils, primaries and secondaries both being connected in parallel. A choking coil, consisting of two old coil primaries in parallel, being placed in series with the coils, in their primary circuit, for resonance effects.

This arrangement gave a maximum spark of 9 to 10 mm. on eight Poldhu condensers arranged to have a capacity of 60 jars.

The oscillator was made up of 11 turns of Pattern 611 wound on a 16-inch drum, two turns being common to primary and secondary. *See* Fig. 12.

A large roof aerial, with a twofold roof 600 feet long and a single feeder in the centre, was used, giving waves of 2,760 and 4,250 feet, resonance constants 180 and 435 respectively, the shorter wave being the stronger.

FIG. 12.



On June 16th signals were received by the "Exmouth" and "Duncan" at Torbay on a fourfold aerial and magnetic detector, and by Felixstowe.

On June 22nd and 23rd a distance test was made by the "Furious." The standard fourfold aerial was compared with a split "T" aerial for receiving; and the magnetic detector with an electrolytic coherer and a set of tuned shunts was tried.

The "Furious" started from Portland and steamed down channel until signals were lost, the "Vernon" sending every 20 minutes with a spark of 9½ mms., except at the shorter distances, when smaller sparks were used.

Results.—With fourfold aerial:—

Magnetic detector, just readable 220 miles, night.
" " faint breathing 250 miles, sunrise.
Electrolytic coherer, readable 250 miles, sunrise.
" " not quite readable 275 miles, day.

With "T" aerial.

Magnetic detector, readable 240 miles, dawn.
" " no signs 265 miles, day.
Electrolytic coherer, only just readable 280 miles, day.
" " not quite readable, 287 miles, day.

The electrolytic coherer is therefore superior to the magnetic detector, and a "T aerial to a fourfold.

As signals grew very faint, the "dots" were lost before the "dashes," and at the maximum distance all the "dashes" could be heard, but only a few of the "dots."

Tuned Shunts.—These were tried for cutting out atmospherics and inteference from Poldhu.

The atmospherics, which were not strong, were easily cut out.

Poldhu's two waves being 5,650 and 6,350 feet, "Vernon's" 4,250-feet wave was quite readable with a tuned shunt of 400 jars, the "Furious" being 85 miles from "Vernon" and 85 miles from Poldhu.

"Vernon's" 2,760-feet wave was tried when 43 miles from Poldhu and 212 from "Vernon" with the following results:—

Tuned Shunt.	"Vernon."	Poldhu.
400 jars	Fair signals	A little weaker than "Vernon."
600 jars	Faint	Still perceptible.
800 jars	Very faint	Silenced.

It would have been quite possible to have read the "Vernon's" signals if "Furious" had carried a silent cabinet.

During the experiments, it was noted at Felixstowe, Rame Head, and Portland Bill, that a considerable increase in the "Vernon's" spark made practically no difference to the strength of signals, and in the "Furious," that smoke from the funnels weakened signals when blown towards the aerial; this latter effect has been frequently noted from ships at sea. It may be due to the funnel gases being partially conducting and forming a leak to earth, or it may be that they affect the capacity of the aerial and the tuning.

Further Experiments with "C" Tune.

Second series of experiments with "C" tune.

After the above experiments, several alterations were made in the improvised sending gear in the "Vernon." At first a small roof aerial was tried, with the result that oscillators of Pattern 611 were instantly perforated by the increased voltage on the aerial. When this had been remedied, the aerial was found to brush very badly and the arrangement most inefficient. Then, after experiments on resistance effects in a wireless circuit (*see* Damping, page 41), the following arrangement was adopted:—

The power was supplied to the coils connected as before, but the frequency was reduced to 27 and the voltage to 100.

The number of Poldhu condensers was increased to 16 and the capacity to 120 jars; the maximum working spark being 7 mm., the power being the same as with the previous arrangement. The primary was made of a single turn of bare stout copper wire and was 16 inches in diameter.

The secondary consisted of 27 turns wound with two parts of Pattern 1816 (the old insulated aerial wire) in parallel, on a 16-inch drum. This was arranged so that it could be moved towards and away from the primary, and thus alter the mutual induction and coupling between the two circuits.

The "Furious" was then sent to the North Sea. The following extracts from the report on the trials carried out are appended:—

"C" Tune Experiments, conducted September 25th, 26th, 27th, and 28th.

Scale of notation for audible signals.

For comparative results during experiments with audible receivers, it has been found convenient to establish a table showing the strength of the sound. This table will be adhered to in future experiments and is as follows:—

0. Signifies nothing received.
1. „ slight breathing sound. The fact that signals are being sent is just perceptible.
2. „ the signals are very faint and quite unreadable.
3. „ the signals are very faint, but just readable by an expert.
4. „ the signals are very faint, but readable.
5. „ the signals are faint.
6 „ fair signals.
7. „ distinct signals.
8. „ good signals.
9. „ fairly strong signals.
10. „ strong signals.
11. „ very strong signals.
12. „ very strong signals indeed.

(NOTE.—In future directions and reports on wireless telegraphy this scale should be adopted.)

Sending Apparatus tried in "Vernon" and Notes thereon.

Sending apparatus in "Vernon."

The aerial was formed by a roof of eight wires 198 feet long, arranged in a circle 4 feet in diameter, and tapped half-way along. Three feeders were tried.

A single bare wire in all 136 feet from the oscillator, an insulated wire 130 feet, and a six bare wires feeder 130 feet long, tailed by 8 feet of single wire and deck tube. On Tuesday these were lengthened, due to the breakdown in the deck tube, by 12 feet of insulated wire.

Synopsis of First Day's Experiments.

During these experiments the "Furious" was anchored off Lowestoft, 150 miles from "Vernon" overland. The object of the experiment was to determine the best spark to use with various combinations of coupling and feeder. Figures in ordinary type refer to reception by Electrolytic Coherer, in *italic* to reception by Magnetic Detector.

Feeder.	Single Bare Wire.				Insulated Single Wire.				Six Bare Wires in Parallel.			
Coupling.	Loosest.	2nd.	3rd.	Tightest.	Loosest.	2nd.	3rd.	Tightest.	Loosest.	2nd.	3rd.	Tightest.
Spark.												
2 Millimetres.	0	4	6	6	1	6	—	—	3	6	9	8
	0	*0*	*1*	*2*	*0*	—	—	—	*0*	*0*	*3*	*3*
3 Millimetres.	0	5	7	7	2	7	8 to 9	—	5	8	10	9
	0	*0*	*2*	*3*	*0*	*0*	*3*	—	*0*	*2*	*4*	*4*
4 Millimetres.	1	6	8	8	3	7 to 8	9	9	6	9	11	10
	0	*0*	*4*	*4 to 5*	*0*	*1*	*4*	7	*0*	*3*	*5*	*5*
5½ Millimetres.	4	7	8 to 9	9 to 10	4	8 to 9	9 to 10	9 to 10	7	10	12	11
	0	—	*5*	*6 to 7*	*0*	*2*	*5*	*7 to 8*	*1*	*5*	*6*	*7*
7 Millimetres.	6	8	9	10	5	9	10	10	8	11	12	11
	—	*5*	*6*	7	*0*	*3 to 4*	*6*	*8*	*2*	*6*	*6*	*7*

The results at the receiving end are tabulated. At the sending end, however, it became clear that :—

1. The eight-wire roof will not do, as it is liable to twist up. A four-wire roof will next be tried.

2. The six-wire feeder is also too cumbersome and does not seem much superior to the single insulated wire. A double insulated wire feeder will next be tried.

3. One coil which was doing duty as half a transformer became hot, and the insulation melted. This shows the necessity of special transformers.

4. The deck tubes at present in use are no good for "C" tune; the Marconi Company, however, have one that will probably be suitable. This has been asked for for trial.

5. The brushing at any uninsulated sharp point in the feeder is very large.

   Special arrangements to overcome this at connecting points will be necessary.

6. The oscillator necessary is too large for ship use. This can be obviated by using an oil-insulated oscillator.

   The oil can be of very high flash-point and no danger of fire need accrue. An oscillator has been asked for for trial.

7. The spark gap silencer (an absolute necessity for "C" tune) gets dirty after about eight hours continual signalling.

   It takes about half an hour to clean. Two of these per set will be necessary in consequence of this.

Results of first day's experiments

The synopsis of the first day's experiments, combined with the observations of the wireless expert in the "Furious," ascertain the following results :—

1. The electrolytic coherer is undoubtedly more sensitive, and therefore superior to the magnetic detector.

   Two different coherers were tried and three detectors without influencing this result.

2. With loose couplings a change in spark length has far greater effect than with tight couplings.

3. Tightening the coupling apparently made more difference to the magnetic detector than to the electrolytic coherer.

4. With a tight coupling the difference between larger sparks is less noticeable than the same difference between smaller sparks.

5. Tuning with loose couplings is sharper than with tight.

6. In every case the maximum spark was the best.

The following effect is noted as a subject for future consideration, if necessary, but is not considered proved.

Critical voltage for magnetic detector.

Referring to the synopsis, in the columns showing the effects of the two looser couplings with the six-wire feeder, on the 4 and 5½ mm. sparks, it would appear that there is a critical voltage, below which the magnetic detector will not work properly.

These examples are given, but a study of the synopsis confirms the impression.

In view of the superiority of the electrolytic detector, it is not considered desirable to spend time in pursuing the investigation of this effect.

Synopsis of Second Day's Experiments.

During these experiments these "Furious" was at Lowestoft, 150 miles from "Vernon" overland. The object of the experiment was to determine the best coupling to use with various combinations and sparks. The weather was very wet, causing a breakdown in the deck insulation in "Vernon." To get over this difficulty measures were adopted that affected the tuning. Figures in ordinary type refer to reception by electrolytic coherer, figures in *italic* refer to magnetic detector.

Feeder.	Single Bare Wire.			Single Insulated Wire.			Six Bare Wires in Parallel.				Remarks.
Spark.	4 mm.	5½ mm.	7 mm.	4 mm.	5½ mm.	7 mm.	3 mm.	4 mm.	5½ mm.	7 mm.	
Coupling.											With the six bare wire feeder the receiver was not properly tuned, for the 5½-mm. and 7-mm. spark, due to "Furious" not knowing that "Vernon" had altered lead of feeder. With the 3-mm. and 4-mm. spark the receiver was tuned correctly to the new conditions.
Loosest tried.	—	—	—	—	—	—	0	0	0	—	
	—	—	—	—	—	—	*0*	*0*	*0*	—	
2nd.	—	—	—	7	7	7	3	4	0	6	
	—	—	—	*1*	*1*	*2*	*0*	*0*	*0*	*0*	
3rd.	6	7	9	8	9	9	5	7	8	9	
	3	*3*	*3*	*3*	*3*	—	*0*	*3*	*3*	*3*	
Tightest tried.	7	8	10	9	10	10	6	10	9	9	
	4	*4*	*4*	*4*	*5*	*5*	*4*	*5*	*5*	*4*	

Remarks on Second Day's Experiments.

Second day's experiments.

1. The fact of the superiority of the electrolytic coherer over the magnetic detector was confirmed.

2. The day was very wet; in consequence of this, the extemporised deck tube in the "Vernon" soon became utterly useless, the insulation breaking down, principally through creeping.

The old pattern deck tube and cowtail was tried, but failed.

Eventually the feeder was led out of a port; this necessitated extra length.

This upset the exact tuning arrangement of the transmitter, especially with the low inductance six-wire feeder. Consequently, the results with that feeder are not absolutely reliable. Moreover, this difference in tune was not immediately detected in the "Furious," and the last two columns in the synopsis of the second day's experiments were compiled with untuned receiving apparatus.

The effect of the lengthening of the feeder would be more inimical to loose coupling than to tight. This may be the reason that, while on the first day the third coupling proved best with the six-wire feeder, on the second day the tighter coupling proved better than the third.

3. In general, the tightest coupling proved best with the single insulated wire, and as good as the third with the six-wire feeder, and the bare single-wire feeder again proved inferior to the insulated wire feeder.

Third Day's Experiments.

Third day's experiments.

Object.—(i.) To compare the electrolytic detector, magnetic detector, and Shoemaker's coherer.

(ii.) To compare the Marconi tuner with a tuner similar in design to the Service tuner.

(iii.) To compare the combinations of coupling and spark found best in the previous two days.

The two tightest couplings, and two still tighter, were tried with the insulated single-wire feeder and the six-wire feeder.

These couplings are called:—

C. The third coupling.
D. The tightest hitherto.
F. A tighter one.
G. The tightest of all.

The third day's experiments were, for good comparative results, marred by atmospherics, which were very strong.

Early in the day atmospherics became bad. They continued, varying in strength throughout Wednesday, and were still bad at 3 a.m. on Thursday morning.

11.0 a.m. A strong buzzing heard in all receivers, using a tuned shunt of 425 jars, this was very much reduced, and signals could be heard. Without the shunt there were sparks from the aerial to earth.

1 p.m. Buzzing and boiling sounds very strong. Sparks in receiving condensers. Violent sparking when tuned shunts were removed. Atmospherics seemed to increase just before "Furious" entered a shower of rain.

Atmospheric effects.

2 p.m. Buzzing stopped. Atmospherics reduced to occasional strong dots.

5.30 p.m. Atmospherics getting much stronger. Violent buzzing and hissing. Heavy thunder clouds coming up and lightning on the horizon.

5.45 to 6.15. Earthed aerials.

"Furious" stopped at 237 miles from 5.30 p.m. to 9.30 p.m., but atmospherics continued to make any useful results impossible up to 1.30 a.m. Thursday, when the experiments were abandoned.

The atmospherics consisted of loud dots, buzzing, and high-pitched whistling, with short intervals of comparative quiet. During some of these intervals signals appeared to vary very much in strength, growing from a barely audible sound just after atmospherics had ceased to good clear signals.*

This effect was probably due to some physical cause. After hearing the loud atmospherics, the operator was probably unable at first to detect the comparatively faint signals.

Such results as were obtained are tabulated.

* This effect has also been observed by Lieutenant Payne, of the "Duncan," and other observers.

Third Day's Experiments.

Single Insulated Wire Feeder.						Six Bare Wire Feeder.					
Coupling.	Distance.	Light.	Strength of Signals.			Coupling.	Distance.	Light.	Strength of Signals.		
			Mag. D.	Electrolytic Coherer.	Shoemaker's Coherer.				Mag. D.	Electrolytic Coherer.	Shoemaker's Coherer.
D	215	Light	0	6	6	C	200	Light	2	7 and 4 with 425 jars shunt.	7
	237	Dark	—	8	8		237	Dark	—	—	—
F	215	Light	0	6	5		—	—	—	4 Heard between Atmospherics.	4
	237	Dusk	—	8 with 25 jars shunt 8. 5 „ 425 „ „ 5.		D	200	Light	3	8 and 4 with 425 jars shunt.	8
	210	Dark	3	8	—		230	„	0	—	—
G	220	Light	—	4	—		237	Dark	—	6	—
							„	„	—	6 Shunted by 425 jars.	6
	237	Dark	—	8 and 3 with 425 jars shunt.	8	F	205	Light	Same as D.		
							225	Dark			
						G	205	Light	3	7 Among Atmospherics	7
							237	Dark	—	3	—