even as regards the original members who remain, is changed; and there is no practical method by which account can be taken of these causes of disturbance.

> I am, Sir, Your obedient servant,
> 92, Cheapside, London, E.C.
> GEORGE KING. 25 May 1887.

[We hope to place before our readers, in our next issue, a communication from Mr. G.F. Hardy on the above subject.-ED.J.I.A.]

## INSURANCES AGAINST ISSUE.

To the Editor of the Journal of the Institute of Actuaries.
Sir,-You have on two occasions, namely in January 1877 and January 1882, given tables showing the amounts of the Issue Insurances in force according to the latest returns; and it may interest your readers to see the following table, in which the information is brought down to the present time. The figures are, in all cases, taken from the five Blue-Books containing the Board of Trade returns of the years 1881 to 1885 inclusive, except in the case of the Caledonian and the Sovereign Offices, which made no return during those years, in consequence of their investigations being made at intervals of seven and six years respectively. In these cases, therefore, I have used the figures given in the valuation returns to 31 December 1885, which will appear in the Blue-Book of 1886.

There has been a very great development of this class of business during the period embraced by the returns, as will be at once seen from the following summary.

| Date of Table | Number of Policies | Net Sums Assured | Net Premiums Received | Average <br> Premium per-cent |
| :---: | :---: | :---: | :---: | :---: |
| 1877 | 261 | $\begin{gathered} \mathcal{E} \\ 875,558 \end{gathered}$ | $\begin{gathered} \pm \\ 62,238 \end{gathered}$ | 6.75 |
| 1882 | 388 | 1,264,166 | 97,495 | 7.51 |
| 1887 | 539 | 1,696,747 | 116,704 | 682 |

The general result is that the number and amount of the transactions have about doubled in the course of ten years. The average premium is now almost exactly the same as it was in 1877, but in 1882 it was somewhat higher.

> I am, Sir,
> Your obedient servant, T. B. SPRAGUE. 10 March 1887.

| Name | Date of Valuation |  | Nef Amounts, demucting Reassurances |  | Gross Amounts |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Sums Insured | $\begin{gathered} \text { Pre- } \\ \text { miums } \\ \text { Received } \end{gathered}$ | Sums Insured | $\begin{gathered} \text { Pre- } \\ \text { minus } \\ \text { Received } \end{gathered}$ | Reserve | Average Premium per-cent |
|  |  |  | $\pm$ | £ | $\pm$ | £ | £ |  |
| Guardian | 31 Dec. 1884 | 107 | 289,153 | 17,538 | 394,854 | 23,865 | 19,174 | 6.04 |
| Equity and Law | 31 Dec. 1884 | 80 | 256,566 | 17,677 | 333,609 | 23,469 | 23,469 | 7.03 |
| Eagle | 31 Dee. 1882 | 30 | 194,535 | 21,947 | 357,130 | 32,810 | 12,047 | $9 \cdot 19$ |
| Law Union | 30 Nor. 1884 | 66 | 124,021 | 7,042 | 179,521 | 9,762 | 9,762 | $5 \cdot 44$ |
| North British \& Merc. | 31 Dec. 1880 | 16 | 74,200 | 4,332 | 83,200 | 5,232 | 5,925 | 6.29 |
| Legal and General | 31 Dec. 1881 | 16 | 65,450 | 3,357 | 69,650 | 3,540 | 1,772 | $5 \cdot 08$ |
| Norwich Union | 30 June 1881 | 14. | 62,850 | 4,227 | 62,850 | 4,227 | 1,589 | 673 |
| Scottish Equitable | 1 Mar. 1883 | 23 | 61,063 | 4,497 | 70,413 | 5,236 | 4,975 | $7 \cdot 44$ |
| Law . . | 31 Dec. 1884 | 19 | 57,709 | 3,761 | 92,709 | 5,861 | 5,861 | 6.32 |
| Standard | 15 Nov. 1880 | 14 | 55,920 | 4,254 | 85,920 | 5,829 | 3,766 | 678 |
| Reliance | 31 Dec. 1882 | 10 | 42,230 | 2,962 | 44,230 | 3,130 | 2,687 | 7.08 |
| National | 31 Dec. 1884 | 12 | 36,900 | 1,343 | 43,200 | 1,605 | 1,605 | $3 \cdot 72$ |
| Rock | 19 Ang. 1882 | 6 | 34,500 | 3,318 | 34,500 | 3,318 | 3,318 | $9 \cdot 62$ |
| London Assurance | 31 Dec. 1880 | 11 | 34,462 | 2,600 | 40,462 | 2,999 | 2,849 | $7 \cdot 41$ |
| Pelican | 31 Dec. 1880 | 6 | 34,015 | 2,343 | 34,015 | 2,343 | 2,343 | 689 |
| Union | 30 June 1882 | 7 | 26,500 | 1,706 | 26,500 | 1,706 | 1,125 | 6.44 |
| Scottish Union \& Nat. | 31 Dec. 1884 | 7 | 25,308 | 1,217 | 35,308 | 1,667 | 1,200 | 472 |
| Caledonian | 31 Dec. 1885 | 9 | 23,350 | 983 | 37,850 | 1,292 | 969 | $3 \cdot 41$ |
| Alliance | 31 Dec. 1883 | 3 | 18,000 | 894 | 18,000 | 894 | 894 | 497 |
| Imperial | 31 Jan. 1881 | 9 | 17,765 | 1,087 | 17,765 | 1,087 | 1,087 | 612 |
| Clerical, Med. \& Gen. | 30 Jnne 1881 | 4 | 17,000 | 1,061 | 17,000 | 1,061 | 1,061 | 6:24 |
| Royal Exchange | 31 Dee. 1880 | 3 | 16,200 | 393 | 16,200 | 393 | 314 | $2 \cdot 43$ |
| Edinburgh . | 31 Mar. 1885 | 5 | 13,425 | 455 | 13,425 | 455 | 409 | 339 |
| Universal . | 31 Dec. 1882 | 5 | 12,400 | 1,247 | 22,000 | 1,473 | 1,686 | 670 |
| Northern . | 31 Dec. 1880 | 8 | 12,400 | 782 | 15,900 | 1,003 | 1,003 | 631 |
| Crown | 25 Mar. 1885 | 4 | 11,973 | 671 | 52,983 | 3,682 | 3,314 | $6 \cdot 96$ |
| Liv. \& London \& Globe | 31 Dec. 1883 | 3 | 11,000 | 599 | 11,000 | 599 | 320 | $5 \cdot 45$ |
| City of Glasgow | 20 Jan. 1884 | 6 | 10,500 | 614 | 11,500 | 667 | 667 | $5 \cdot 80$ |
| Commercial Union | 31 Dec. 1882 | 6 | 9,940 | 583 | 36,220 | 4,722 | 4,486 | 1304 |
| General . | 31 Dee. 1882 | 4 | 9,300 | 535 | 11,300 | 661 | 331 | $5 \cdot 85$ |
| University | 1 May 1885 | 4 | 8,800 | 679 | 8,800 | 679 | 679 | $7 \cdot 72$ |
| West of England | 31 Dee. 1882 | 7 | 7,450 | 468 | 7,450 | 468 | 474 | $6 \cdot 28$ |
| Scottish Imperial | 31 Dec. 1880 | 3 | 5,500 | 163 | 5,500 | 163 | 120 | 2.96 |
| Sovereign. | 31 Dec. 1885 | 2 | 5,000 | 284 | 5,000 | 284 | 142 | $5 \cdot 68$ |
| Westminster | 31 Dec. 1881 | 4 | 4,362 | 453 | 4,362 | 453 | 411 | 10.39 |
| Patriotic . | 31 July 1884 | 2 | 4,000 | 480 | 4,000 | 480 | 275 | $12 \cdot 00$ |
| British Empire | 31 Dee. 1884 | 2 | 1,500 | 106 | 1,500 | 106 | 50 | 707 |
| Atlas | 25 Dec. 1884 | 1 | 1,000 | 45 | 1,000 | 45 | 4 | 450 |
| Scottish Metropolitan | 20 May 1882 | 1 | 500 | 13 | 500 | 13 | -8 | $\cdot 25$ |
| 39 Companies | $\cdots$ | 539 | ,696,747 | 116,7048 | 307,276 | 157,267'3 | 122,163:8 | $6 \cdot 82$ |

