No. 3.—Return of Defects found on Inspection of Boilers during the Financial Year ended 31st March, 1895.

| Description of Defects.                                | Dangerous.    | Defective in<br>Lesser<br>Degree.                | Total             |
|--|---------------|--|-------------------|
| Brick seating  |               | 6  | 6                 |
| Cast-iron bridges on mud-hole doors                    |               | 3  | 3                 |
| Corrosion, externally                                  | 17            | 48   | 65                |
| Corrosion, internally                                  | <b>2</b>      | $\frac{1}{22}$                                   | 24                |
| Cracks in fire-boxes                                   | 11            | 20   | 31                |
| Cracks in shell  |               | 5  | 5                 |
| Cracks in shell over furnace                           |               | $\begin{array}{c c} & \vdots \\ 2 & \end{array}$ | $\tilde{2}$       |
| Cracks in tube-plates                                  | 2             | $\overline{9}$                                   | $1\overline{1}$   |
| Defective construction                                 | _             | $\frac{1}{2}$                                    | $\overline{2}$    |
| Depressions over furnaces in externally-fired boilers. |               | 5  | 5                 |
| Depressions on crown of fire-boxes                     | ,,,           | 12   | 12                |
| Fire-box girders broken                                | 1             |  | 1                 |
| Fire-box girders wasted                                | î             | 8  | 9                 |
| Fire-boxes thin  | $\frac{1}{2}$ | 9  | 11                |
| Fire-boxes renewed                                     | 6             |  | 6                 |
| Flues out of shape                                     | 5             | 12   | 17                |
| Furnace wasted from leakage                            |               | 4  | 4                 |
| General dilapidation from neglect or age               | 2             | 28   | 30                |
| Grooving in furnaces                                   | 4             | 3  | 3                 |
| Grooving in shell                                      |               | 16   | 16                |
| Grooving in uptakes                                    | 1 1           | 9  | 10                |
| Leakage from joints and mountings                      | 1 1           | $^{\circ}_{22}$                                  | 22                |
| Leakage from seams in shell                            |               | 26   | 26                |
| Manhole-openings weak                                  | 11            | 18   | 29                |
| Manhole-openings to be cut (omission)                  | 1.1           | 3  | 3                 |
| Patches in fire-boxes                                  | 1             | 20   | $2\overset{3}{1}$ |
| Rivets broken in furnace                               | 1 1           | 12   | $\frac{21}{12}$   |
| Rivets broken in shell                                 | 1             | 6  | 7                 |
| Rivets wasted and had to be renewed                    | 1 1           | 4  | 4                 |
| Saddle-plates wasted                                   |               | $\frac{4}{2}$                                    | $\overset{4}{2}$  |
|  | 6             | 4  | 6                 |
| Stays, longitudinal, broken " wasted                   | 0             | 10   | 10                |
| " wasted<br>Stays screwed in fire-box broken           | 2             | 24   | 26                |
| weated   | 2 2           | 26   | 28                |
| structural weakness .                                  | 6             | 40   |                   |
| n 1  | 14            | 56   | 6<br>70           |
| Lubes wasted   | 14            | υυ<br>   | 70<br>——–         |
| Totals   | 93            | 452  | 545               |
| Digesters found to be Defective on                     | Inspection.   |  |                   |
| Brackets for supporting digesters                      | 2             | 2  | 4                 |
| internal corrosion                                     | 4             | 14   | 18                |
| Landings wasted internally                             | 3             | 18   | $\frac{10}{21}$   |
| Longitudinal stays wasted                              | 4             | $\frac{10}{12}$                                  | $\frac{21}{16}$   |
| Longitudinat stays wasted                              |               |  | 10                |
| Totals   | 13            | 46   | 59                |

## Defective Fittings found on Inspection of Boilers for which Notice was given to renew.

| 12 blow-off cocks.  | 21 pressure-gauges.   |
|---------------------|-----------------------|
| 1 blow-off pipe.    | 23 safety-valves.     |
| 2 boiler-supports.  | 28 sludge-hole doors. |
| 6 check-valves.     | 15 spring-balances.   |
| 6 feed-pipes.       | 3 steam-pipes.        |
| 9 feed-pump valves. | 25 water-gauge cocks. |
| 30 fusible plugs.   |                       |
|                     |                       |