

## INDEX.

## NAMES OF PATENTEES.

	No.	Year.		No.	Year.		No.	Year.
Abel, F. A.	1,902	of 1865	Bazin, E.	2,070	of 1862	Brooke, Sir W. C.	1,800	of 1861
Absterdam, J.	2,449	of 1857	Beamish, W.	1,574	of 1870		160	of 1863
Achereau, H. A.	713	of 1854	Beardstee, G. W.	1,047	of 1859	Brooman, R. A. ( <i>Lalou-</i>		
Adley, C. C.	3,281	of 1866	"	1,567	of 1861	<i>bère, J. A. E.</i> )	269	of 1865
Albini, A., and Vaglica, J.	2,571	of 1868	"	41	of 1863	Brooman, R. A.	231	of 1853
Allan, T.	261	of 1855	Becker, L. M.	3,609	of 1867	Brooman, R. A. ( <i>Ponghaire,</i>		
"	14,100	of 1852	"	130	of 1868	<i>C., and Bourroy, J. S.</i> )	2,310	of 1861
"	333	of 1853	Bedson, G.	129	of 1857	Brown, J. H.	1,310	of 1864
"	1,830	of 1853	Belcher, E.	423	of 1859	Brown, W.	12,991	of 1850
"	2,243	of 1854	"	2,189	of 1858	Buchanan, J.	3,070	of 1869
"	261	of 1855	Bellford, A. E. L. ( <i>Car-</i>			Buckingham, W.	1,708	of 1858
"	2,241	of 1867	<i>penier, C.</i> )	1,562	of 1853	Bullivant, W. M.	668	of 1858
Allen, A. N.	375	of 1872	Bélet, L. P. G., and Rouvre,			Burleigh, B.	3,164	of 1857
Allman, F.	12,276	of 1848	C. M. P.	2,681	of 1864	Burroughs, J.	3,363	of 1869
Andrews, W.	2,548	of 1860	Bensa, F.	665	of 1852	Button, C.	13,363	of 1850
"	710	of 1861	Berlioz, A.	1,308	of 1867			
"	1,620	of 1863	Berrens, T.	3,192	of 1865	Cadogan, F. W.	2,372	of 1853
Andrews, W. S.	2,016	of 1867	Berry	7,366	of 1837	Cahill, C. S.	117	of 1854
Andrews, E. W.	829	of 1872	Bestwick, T.	344	of 1870	Callan, N.	2,340	of 1853
Anstruther, W. C. I.	665	of 1862	Bestwick, W.	344	of 1870		1,606	of 1854
Appold, J. G.	1,828	of 1858	Bianchi, M. ( <i>Currosio, A.</i> )	613	of 1852	Callé, L. C.	7,729	of 1838
Archer, C. M.	1,773	of 1858	Bingham, R. J.	755	of 1859	Carlier, C. F.	22	of 1865
Arman, A. L.	1,031	of 1865	Binks, C.	119	of 1853		917	of 1866
Aspinall, J.	3,051	of 1868	Binney, C. R.	2,326	of 1858	<i>Carpenter, G.</i>	1,562	of 1853
"	1,076	of 1869	Birkbeck, G. H. ( <i>Perrin, G.</i> )	2,355	of 1860	<i>Carrosio, A.</i>	613	of 1852
Avery, T. C.	2,708	of 1854	Blaquiere, W. B. de	1,687	of 1857	Carter, J. T.	3,046	of 1867
			Bleakley, J.	1,994	of 1858	Cary, A.	1,136	of 1869
			Bloch, N.	1,053	of 1866	Caselli, G.	1,765	of 1860
Bachelder, J. H.	122	of 1860	Bloom, M.	2,467	of 1857	<i>Casal, J. H.</i>	1,386	of 1864
Baguley, C.	2,734	of 1862	Bobceuf, P. A. F.	759	of 1854		3,326	of 1868
Bailey, J.	104	of 1863	Bogget, W.	2,416	of 1865	Chapin, W. B.	2,973	of 1872
Bailey, J. A. and Speed,			"	3,180	of 1865	Chapman, H.	739	of 1855
J. J.	3,151	of 1863	"	3,299	of 1865	Chatterton, J.	13,660	of 1851
Bain, A.	8,783	of 1841	Bolton, F. J.	1,398	of 1862	"	252	of 1858
"	9,204	of 1841	Bonelli, G.	191	of 1855	"	883	of 1858
"	9,745	of 1843	"	2,457	of 1860	"	1,213	of 1859
"	10,838	of 1845	Bonneville, H. A. ( <i>Gerard,</i>			"	2,809	of 1859
"	14,146	of 1852	<i>G. E. M.</i> )	1,608	of 1863	"	109	of 1860
Baker, J.	726	of 1866	Bonneville, H. A. ( <i>De</i>			"	1,178	of 1860
"	1,718	of 1866	<i>Nozan, C. E. L.</i> )	2,530	of 1865	"	2,056	of 1860
"	3,039	of 1866	Bonneville, H. A. ( <i>Pèrémé,</i>			"	3,138	of 1860
"	3,351	of 1866	<i>P. F. L.</i> )	1,749	of 1866	"	175	of 1861
Balestrini, P. A.	2,039	of 1855	Bonneville, H. A. ( <i>Pèrémé,</i>			"	753	of 1861
"	2,124	of 1855	<i>P. F. L.</i> )	1,751	of 1866	"	413	of 1862
"	211	of 1857	Bonneville, H. A. ( <i>Allen,</i>			Chattaway, E. D.	173	of 1863
"	2,177	of 1869	<i>A. N., and Davey, R. H.</i> )	375	of 1872	Church, J.	11,010	of 1845
Barclay, A.	2,835	of 1858	<i>Bourcy, J. S.</i>	2,310	of 1861	"	1,767	of 1857
"	2,835	of 1858	Brackenbury, A.	842	of 1852	Churchill, A. S.	458	of 1862
"	2,937	of 1858	Bradshaw, J.	1,385	of 1858	<i>Clas &amp; Co.</i>	2,674	of 1860
"	56	of 1859	Brae, A. E.	2,007	of 1863	Clark, E.	13,336	of 1850
"	263	of 1859	Braithwaite, F.	1,905	of 1858	Clark, J. L.	2,956	of 1853
"	329	of 1859	Brandon, A. H. ( <i>Errant,</i>			"	2,831	of 1856
Barlow, W. H.	13,136	of 1848	<i>Madame C.</i> )	3,178	of 1869	"	1,491	of 1858
Barrett, F.	2,292	of 1861	<i>Brandon, H.</i>	1,368	of 1865	"	1,965	of 1858
"	2,682	of 1861	Branscombe, J.	322	of 1861	"	181	of 1859
"	1,207	of 1862	Brett, A.	11,576	of 1847	"	3,038	of 1866
Barratt, O. W.	9,786	of 1843	Brett, J.	10,939	of 1845	Clark, W. ( <i>Baudouin, F. M.</i> )	2,831	of 1858
Barnwell, S.	2,249	of 1860	Brett, T. W. B.	12,054	of 1848	" ( <i>Treue, A. H. G.</i> )	607	of 1859
Barwick, J.	994	of 1860	Bright, E. B.	14,166	of 1852	" ( <i>Serrin, V.</i> )	653	of 1859
Barwise, J.	8,783	of 1841	Bright, C. T.	14,331	of 1852	" ( <i>Rosencranz, E.</i>		
Bastet, L.	2,100	of 1869	"	14,331	of 1852	<i>D.</i> )	2,552	of 1859
"	3,780	of 1869	Britton, B. F.	2,001	of 1858	" ( <i>Casal, J. H.</i> )	1,336	of 1864
Batchelder, J. M.	2,329	of 1866	Brooks, A.	1,208	of 1871	" ( <i>Cartier, C. F.</i> )	22	of 1865
"	212	of 1867	"	344	of 1870	" ( <i>Delaunay, J. H.</i> )	3,124	of 1866
"	1,136	of 1869	Brooks, D.	1,225	of 1866	Clark, A. M. ( <i>Gruet, Félix</i>		
Batchelder, W. W.	3,239	of 1872	"	632	of 1867	<i>and Gruet, Frédéric</i> )	2,854	of 1868
Batchelder, W. T.	783	of 1872	Brooks, H.	2,192	of 1867	Clark, A. M. ( <i>Casal, J. H.</i> )	3,326	of 1868
Baudouin, F. M.	2,710	of 1854	Brooks, H., Brooks, A.,	344	of 1870	Clark, A. M. ( <i>Balestrini,</i>		
"	933	of 1857	<i>Bestwick, T. and Best-</i>			<i>wick, W.</i> )	2,177	of 1869
"	333	of 1858	Brooke, Sir W. O.	344	of 1870	Clark, A. M. ( <i>Dervieu, G. H.</i> )	207	of 1870
"	2,831	of 1858	"	344	of 1870	Clark, A. M. ( <i>D'Arin-</i>		
Bauer, W.	1,251	of 1853	"	344	of 1870	<i>court, L. C. A. J. G.</i> )	255	of 1872
"	590	of 1860	"	440	of 1861	Cliff, J.	1,255	of 1862
Baylis, C.	2,225	of 1858						

	No.	Year		No.	Year		No.	Year
Clifford, H.	3,938	of 1868	DunDonald, Earl of	277	of 1852	Goodyear	28	of 1852
Cockshott, T.	412	of 1872	Edwards, E.	740	of 1852	Gordon, A. I. L.	847	of 1865
Cohen, A.	1,924	of 1862	Dunn, J. B.	2,188	of 1858	"	1,543	of 1865
Coignet, F.	2,757	of 1859	Edison, T. A.	1,453	of 1872	Gordon, L. D. B. ( <i>Siemens</i> , <i>E. W.</i> )	2,089	of 1855
Collette, C. H. ( <i>Faucheux</i> , <i>T.</i> )	2,486	of 1864	Elkington, J. B.	748	of 1861	Gramme, Z. T., and D'Ivernois, E. L. C.	1,668	of 1870
Collingridge, A.	2,712	of 1869	Engler, L.	3,692	of 1872	"	1,254	of 1872
Collyer, R. H.	1,275	of 1860	<i>Ehrman, M. L.</i>	2,525	of 1870	Grantham, J.	1,164	of 1860
"	1,329	of 1860	Ercmann, J.	2,135	of 1859	Gray, M.	1,770	of 1867
Cooke, W. F.	7,390	of 1837	Evans, M.	362	of 1865	"	1,771	of 1867
"	8,345	of 1840	<i>Errant, Madame O.</i>	235	of 1854	"	1,772	of 1867
"	9,465	of 1842	Evans, J. C.	3,178	of 1869	"	1,750	of 1868
"	10,655	of 1845	Evans, T. W.	3,666	of 1872	"	2,012	of 1868
Cooper, F. H.	2,271	of 1858	Fairholme, C.	1,561	of 1860	"	2,505	of 1868
Cornelius, R.	1,304	of 1862	Fanshawe, H.	579	of 1861	"	531	of 1869
Cowper, C., Bingham, R. J.	755	of 1859	Fanshawe, J. A.	2,260	of 1872	Gray, M., and Gibson, L.	2,367	of 1870
Crispin, W. H.	1,742	of 1858	Fanstone, H.	2,580	of 1862	"	1,771	of 1867
Croskey, J. R. ( <i>Mc Kinley</i> , <i>A.</i> )	1,842	of 1871	Farmer, W. C., Partridge, W. E., and Webb, R. J. P.	716	of 1859	Gray, M., and Hawkins, F.	2,012	of 1868
Crossley, L. J.	2,536	of 1864	Farmer, C. W.	1,194	of 1859	"	2,505	of 1868
Crougères, J.	3,274	of 1869	Farmer, M. G.	1,825	of 1866	Greaves, H.	2,367	of 1870
Cumine, J. A.	680	of 1857	Farrel, J.	1,825	of 1866	Green, R.	3,007	of 1853
Cunningham, G. A. A., and T. P. C.	2,702	of 1872	<i>Faucheux, T.</i>	1,136	of 1869	Greener, J. H.	3,490	of 1868
Daft, T. B.	2,170	of 1859	<i>Faucheux, T. (Brandon, H.)</i>	2,371	of 1853	Greener, W.	2,707	of 1868
Daniell, W.	1,364	of 1870	Fenby, J. B.	2,486	of 1864	Grenet, E.	1,076	of 1846
Daniell, W., and Lund, H.	1,364	of 1870	Fenton, H.	1,368	of 1865	"	2,043	of 1855
Danchell, F. L.	3,164	of 1857	Fenwick, G.	101	of 1863	"	2,297	of 1837
<i>D'Arincourt, L. C. A. J. G.</i>	255	of 1872	<i>Ferris, C.</i>	2,238	of 1851	Greenough, J. J.	393	of 1858
Darlow, W.	311	of 1866	<i>Field, G. A.</i>	1,192	of 1870	Greenough, B. F.	13,613	of 1851
"	888	of 1872	<i>Finger, L.</i>	2,341	of 1864	Griffin, H.	1,285	of 1859
"	1,665	of 1872	Fischer, M.	829	of 1872	<i>Gruet, Frédéric</i>	569	of 1861
"	3,221	of 1872	Fitzgerald, D. G.	1,584	of 1870	<i>Gruet, Félix</i>	2,854	of 1868
D'Atouquia, der Franca- Netto, J.	1,751	of 1863	"	2,413	of 1863	Guillemin, C. M.	2,854	of 1868
<i>Davenport, T.</i>	7,386	of 1837	"	2,576	of 1868	Gurney, G.	1,209	of 1860
Davies, G. ( <i>Goddier, M. S.</i> <i>and H. E.</i> )	1,097	of 1857	"	501	of 1859	Guy, G. F.	1,767	of 1859
Davies, G. ( <i>Brooks, D.</i> )	1,226	of 1866	Fitzgerald, D. G., and Mol- loy, B. C.	3,696	of 1869	Guy, H. R.	594	of 1862
"	632	of 1867	"	1,376	of 1872	Guyard, F. V.	2,088	of 1865
"	2,192	of 1867	Fletcher, L. W.	2,773	of 1858	Hall, W.	83	of 1855
Davis, C., and Struthers, T.	2,256	of 1871	Fontaine Moreau, P. A. Le Comte de	1,800	of 1853	"	2,411	of 1858
Davison, J. S.	261	of 1860	Fontaine Moreau, P. A. Le Comte de	148	of 1855	Hamer, J.	2,941	of 1855
Day, A. G.	3,108	of 1867	Fontaine Moreau, P. A. Le Comte de	1,649	of 1855	"	2,546	of 1859
Day, J.	405	of 1853	Fonrobert, C. F. J.	2,747	of 1856	Hancock, C.	1,268	of 1858
Day, A. G.	1,334	of 1871	Forster, T.	12,136	of 1848	"	2,616	of 1858
De Arrieta, J. J.	271	of 1861	Forster, D. G.	12,236	of 1848	"	2,616	of 1858
De Bergue, C.	1,605	of 1858	Foucault, A.	2,008	of 1869	"	2,714	of 1858
"	1,740	of 1858	Fowler, J.	481	of 1852	"	2,857	of 1859
<i>De Bergue, C.</i>	2,521	of 1859	<i>Franca-Netto, A. de</i>	1,751	of 1863	Hancock, C., and Silver, S. W.	3,331	of 1862
De Briou, H. E. F.	394	of 1866	<i>Frost, M. S.</i>	17	of 1870	"	3,092	of 1864
De Gablenz, H. E., and Mahler, H.	466	of 1866	<i>Frost, M. S.</i>	1,361	of 1871	Hancock, J.	1,931	of 1863
De la Bastida, E.	1,924	of 1832	Frost, C.	1,152	of 1859	Hancock, W.	2,616	of 1858
De la Haye, J.	2,467	of 1857	Fuller, J.	2,815	of 1862	Hands, F.	2,483	of 1862
"	2,948	of 1865	Fuller, J. C.	96	of 1865	Hargreaves, J.	261	of 1862
<i>Delanuy, J. H.</i>	3,124	of 1866	Fuller, G. L.	1,720	of 1867	Harby, J. B.	236	of 1862
Delperdaug, Leon	1,307	of 1867	"	17	of 1852	Harper, J. R.	236	of 1862
Delfosse, M. F. J.	1,889	of 1853	Gall, J.	2,677	of 1853	Harrison, C. W.	2,380	of 1868
De Matthys, H.	2,710	of 1859	Galpin, T.	716	of 1859	Harrison, C. W. and J. J.	1,714	of 1854
<i>De Morat, A. B.</i>	2,052	of 1866	Garside, H.	1,194	of 1859	"	1,199	of 1855
De Moleyns, F.	9,053	of 1841	<i>Gussett, E.</i>	2,307	of 1862	"	2,483	of 1856
Dering, G. E.	13,427	of 1850	Geidge, W. E. ( <i>Crougères</i> , <i>J.</i> )	2,439	of 1871	"	588	of 1857
"	1,909	of 1853	Gee, J. F.	3,274	of 1869	"	1,412	of 1857
"	1,088	of 1854	<i>Gerard, G. E. M.</i>	486	of 1858	"	1,099	of 1858
"	2,759	of 1854	Ghislin, T. G.	1,668	of 1863	"	2,116	of 1860
"	18	of 1858	"	2,661	of 1860	Harrison, H.	459	of 1852
<i>Dervieu, G. H.</i>	207	of 1870	"	853	of 1861	Harrison, W. H.	3,121	of 1865
<i>De Sainneville, L. B. S. C.</i>	1,483	of 1858	Gibson, L.	1,072	of 1864	Hatcher, W. H.	163	of 1863
Deschamps, C.	1,646	of 1855	Gilbert, E.	1,771	of 1867	Hatchers, F.	1,634	of 1847
Devlan, P. S.	2,131	of 1861	Gillard, J. P.	2,012	of 1868	"	2,505	of 1868
<i>Dvulan, P. S.</i>	142	of 1871	Gilpin, W. L.	497	of 1852	"	2,367	of 1870
De Wolfe, A. G.	2,106	of 1871	Gilpin, W.	566	of 1852	Harder, J. N.	444	of 1858
Dewey, R. H.	375	of 1872	Girard, H. B.	779	of 1854	Heasler, W.	3,268	of 1868
Dickey, W.	3,170	of 1861	<i>Gisborne, F. N.</i>	869	of 1857	Henley, J.	1,555	of 1870
Dick, C. J. A., and G. A.	2,827	of 1872	"	687	of 1859	Henley, G.	2,603	of 1869
Dick, R.	272	of 1870	"	2,079	of 1859	Henley, W. T.	12,236	of 1848
<i>D'Ivernois, E. L. C.</i>	917	of 1869	"	93	of 1860	"	680	of 1852
D'Ivernois, E. L. C.	1,668	of 1870	"	3,434	of 1862	"	185	of 1853
D'Ivernois, E. L. C.	1,917	of 1870	Gisborne, J. S.	1,753	of 1872	"	1,779	of 1853
<i>D'Ivernois, E. L. C.</i>	1,254	of 1872	Glass, R. A.	1,878	of 1866	"	2,846	of 1853
Dodson, A. T.	397	of 1862	"	497	of 1852	"	2,769	of 1856
Drake, W. R. ( <i>Schneider</i> , <i>E.</i> )	1,812	of 1859	"	566	of 1852	"	3,020	of 1857
Drayson, A. W.	2,326	of 1858	"	779	of 1854	"	1,905	of 1859
Dujardin, P. A. J.	11,894	of 1847	"	869	of 1857	"	734	of 1861
Dumont, F. M. A.	3,497	of 1851	"	687	of 1859	"	2,464	of 1861
Duncan, J. W.	906	of 1853	"	2,079	of 1859	"	1,126	of 1864
"	2,997	of 1858	"	93	of 1860	"	3,637	of 1869
Duncan, C. S.	2,980	of 1860	"	3,434	of 1862	Henry, M.	2,800	of 1871
"	1,329	of 1861	Gisborne, R. A.	1,918	of 1860	"	2,868	of 1857
DunDonald, Earl of	13,698	of 1851	"	1,289	of 1859	"	393	of 1858
"			"	2,991	of 1860	"	508	of 1861
"			<i>Goddier, M. L., and H. E.</i>	1,097	of 1857	Henry, M. ( <i>Ehrmann</i> , <i>M. L.</i> )	3,692	of 1872
"			Godefroy, P. A.	1,268	of 1855	Henry, M. ( <i>Rogers, H. A.</i> )	2,987	of 1872
"			"	1,687	of 1858	Higham, L. J.	31	of 1859
"			"	2,402	of 1859	Highton, E.	12,039	of 1848
"			"	1,978	of 1860	"		

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	No.	Year		No.	Year		No.	Year
Highton, E. ...	12,959	of 1850	Johnson, J. H. ( <i>Batchelder, J. M.</i> ) ...	2,329	of 1866	Lyttle, W. A. ...	3,206	of 1872
" ...	13,938	of 1852	Johnson, J. H. ( <i>Batchelder, J. M.</i> ) ...	212	of 1867	Mackintosh, J. ...	2,707	of 1857
" ...	108	of 1854	Johnson, J. H. ( <i>Van Maderen, N. M.</i> ) ...	1,210	of 1867	" ...	1,090	of 1858
" ...	232	of 1857	Johnson, J. H. ( <i>Bertioz, A.</i> ) ...	1,308	of 1867	" ...	1,924	of 1858
Highton, H. ...	3,101	of 1857	Johnson, J. H. ( <i>Ciry, A., Farmer, M. G., Milliken, G. F. and Batchelder</i> ) ...	1,136	of 1869	" ...	2,269	of 1859
" ...	12,039	of 1848	Johnson, J. H. ( <i>Gramme, Z. T., and d'Ivernois, E. L. C.</i> ) ...	1,254	of 1872	" ...	1,560	of 1860
" ...	1,279	of 1872	Jones, S. T. ...	2,209	of 1865	" ...	2,332	of 1865
" ...	2,547	of 1872	Jones, J. ...	2,485	of 1869	" ...	956	of 1859
Hirsch, H. ...	47	of 1861	Joy, D. ( <i>De Bergue</i> ) ...	2,521	of 1859	Magnus, L. S. ...	2,079	of 1859
" ...	549	of 1861	Kaye, R. J. ...	881	of 1853	" ...	2,956	of 1859
Hjorth, Sören ...	1,611	of 1867	Keeling, E. B. ...	31	of 1863	" ...	1,164	of 1860
Hjorth, S. ...	12,235	of 1848	Keirby, E. ...	2,871	of 1860	Mahler, H. ...	466	of 1866
" ...	2,198	of 1854	Kennedy, J. ...	1,544	of 1865	Mallock, H. A. ...	1,792	of 1871
" ...	2,199	of 1854	Ker, D. ...	329	of 1861	Mapple, H. ...	2,956	of 1859
" ...	806	of 1855	Kidder, J. ...	1,979	of 1865	" ...	13,336	of 1850
" ...	807	of 1855	Kilner, J. ...	827	of 1852	" ...	2,345	of 1853
" ...	808	of 1855	Kilner, J. M. ...	1,015	of 1867	" ...	1,515	of 1860
Holl, L. ...	2,373	of 1863	King, E. A. ...	10,919	of 1845	Mapple, D. M. ...	2,345	of 1853
Holland, H. ...	2,488	of 1862	Kingston, J. F. ...	11,188	of 1846	Marsden, C. ...	2,161	of 1865
Holmes, F. H. ...	573	of 1866	Kirkman, C. F. ...	1,134	of 1852	Marshall, T. B. ...	1,022	of 1867
" ...	2,628	of 1857	Knight, R. ...	837	of 1859	Marshall, W. A. ( <i>Erickmann, J.</i> ) ...	362	of 1865
" ...	2,221	of 1867	Kingston, J. F. ...	2,457	of 1854	Marshall, W. A. ...	1,989	of 1866
" ...	1,998	of 1857	Konn, S. W. ( <i>Lodyguine, A. M.</i> ) ...	963	of 1863	" ...	3,192	of 1866
" ...	2,307	of 1867	Koosen, J. H. ...	1,134	of 1852	Martin, G. ...	3,587	of 1869
" ...	2,060	of 1868	Krauss, E. F. ...	3,809	of 1872	Martin, S. M., and Varley, S. ...	237	of 1866
" ...	1,744	of 1869	Krotkoff, R. N. ...	404	of 1862	Martin, S. M., and Varley, S. A. ...	315	of 1868
Holmes, N. J. ...	2,665	of 1868	Lacassagne, J. ...	2,305	of 1862	Martin, S. M., and Varley, S. A. ...	2,369	of 1868
Holtzman, A. ...	833	of 1864	Lake, W. R. ( <i>De Morat, A. B.</i> ) ...	404	of 1862	Matthiessen, A. ...	3,778	of 1869
Hooper, W. ...	881	of 1859	Lake, W. R. ( <i>Day, A. G.</i> ) ...	2,305	of 1862	Mauzy, M. F. ...	3,390	of 1867
" ...	505	of 1863	Lake, W. R. ( <i>Lontin, D. F. J., and d'Ivernois, E. L. C.</i> ) ...	2,135	of 1859	Mayall, T. J. ...	2,160	of 1868
" ...	939	of 1868	Lake, W. R. ( <i>Simonds, W. E.</i> ) ...	1,626	of 1860	Maynard, E. ...	2,434	of 1868
Hooper, W. ...	47	of 1860	Lake, W. R. ( <i>Devlan, P. S., Wendell, J. P., and Tasker, S. L. M.</i> ) ...	998	of 1855	McComb, J. J. ( <i>McComb, D.</i> ) ...	951	of 1867
" ...	1,546	of 1860	Lake, W. R. ( <i>Utley, H. M. and Ross, A.</i> ) ...	2,450	of 1856	McDougal, A. ...	943	of 1859
" ...	939	of 1868	Lake, W. R. ( <i>Gassett, E.</i> ) ...	2,052	of 1866	McEvoy, C. A. ...	10	of 1871
Hope, L. ...	2,251	of 1858	Lake, W. R. ( <i>Radde, W.</i> ) ...	3,108	of 1867	" ...	892	of 1872
Horstmann, W. H. ...	434	of 1859	Lake, W. R. ( <i>Field, G. A., and Andrews, L. W.</i> ) ...	2,052	of 1866	McKinley, A. ...	2,085	of 1872
" ...	2,800	of 1871	Lake, W. R. ...	3,108	of 1867	McNair, A. ...	1,842	of 1871
Horwood, A. ...	975	of 1865	Lake, W. R. ( <i>Batchelder, W. W.</i> ) ...	917	of 1869	Mee, J. A. ...	10,799	of 1845
Hosking, A. W. ...	3,287	of 1866	Lake, W. R. ( <i>Z. G. Simons</i> ) ...	2,235	of 1869	Mendel, S. ...	2,509	of 1865
Hubert, F. T. ...	2,605	of 1865	Laloubère, J. A. E. ...	269	of 1865	Mennons, M. A. F. ( <i>Hjorth Sören</i> ) ...	2,387	of 1863
Hughes, E. J. ...	67	of 1857	Laming, R. ...	1,482	of 1862	Merrick, J. M. ...	1,611	of 1867
Hughes, D. E. ...	84	of 1859	Lardy, C. L. ...	2,217	of 1865	Miller, T. ...	922	of 1869
Humfrey, C. ...	1,708	of 1858	Lavater, M. L. J. ...	2,942	of 1867	Milliken, G. F. ...	924	of 1861
Hunt, F. ...	282	of 1858	Legras, L. N. ...	2,898	of 1863	Millward, W. ...	1,136	of 1869
Hunt, B. ( <i>Finger, L.</i> ) ...	1,584	of 1870	Le Molt, A. E. ...	497	of 1852	Millward, W. ...	13,536	of 1851
Hunter, C. ...	680	of 1857	Lenoir, J. J. E. ...	566	of 1852	Mirror, P. E. ...	1,208	of 1871
Hunter, J. ...	511	of 1852	Lewis, J. W. ...	12,219	of 1848	Mirand, J. ...	750	of 1852
Hurd, F. ...	3,432	of 1871	Liddell, C. ...	1,521	of 1866	Miroude, A. ...	1,651	of 1866
Hurry, H. C. ...	1,039	of 1859	Light, C. L. ...	1,050	of 1855	Molesworth, J. ( <i>Gisborne, F. N. L., Smith, F. O. J.</i> ) ...	687	of 1859
" ...	2,440	of 1859	Little, G. ...	14,343	of 1852	De Molin, Count ...	2,158	of 1864
Hutton, T. ...	195	of 1866	Little, C. ...	1,848	of 1856	Molloy, B. B. ...	1,376	of 1872
" ...	195	of 1866	Little, C. ...	11,976	of 1847	Monckton, E. H. C. ...	1,322	of 1861
Inkpen, S. ...	2,326	of 1865	Little, C. ...	2,634	of 1869	" ...	1,341	of 1861
" ...	2,326	of 1865	Lindsay, J. B. ...	1,207	of 1872	" ...	2,661	of 1861
Jackson, E. H. ...	14,330	of 1852	Lindsay, J. B. ...	1,242	of 1854	" ...	188	of 1862
Jacques, J. A. ...	716	of 1859	Lodyguine, A. M. ...	3,809	of 1872	" ...	1,516	of 1862
" ...	1,194	of 1859	Lontin, D. F. J. ...	917	of 1869	" ...	2,772	of 1862
Jaloureau, A. F. ...	2,137	of 1858	Loriland, D. H. ...	2,341	of 1864	" ...	1,503	of 1867
" ...	3,047	of 1860	Ludeke, J. E. F. ...	2,986	of 1862	" ...	3,147	of 1869
Jaloureau, A. F., and ...	2,942	of 1867	Ludeke, J. E. F., and ...	2,413	of 1863	Moran, J. ...	748	of 1861
Lardy, C. L. ...	748	of 1861	Lund, H. ...	1,364	of 1870	Morris, T. ...	188	of 1862
Jay, A. T. ...	2,155	of 1865	Lyttle, W. A. ...	3,556	of 1868	" ...	1,516	of 1862
Jenkin, F. ...	390	of 1869	" ...	391	of 1869	" ...	1,350	of 1857
" ...	3,236	of 1869	" ...	797	of 1869	" ...	1,379	of 1858
Jennings, J. G., and ...	2,893	of 1863	" ...	109	of 1872	" ...	611	of 1871
Lavater, M. L. J. ...	1,531	of 1860	" ...	1,320	of 1872	Newbold, O. ...	912	of 1860
Jobson, R. ...	2,362	of 1860	" ...	1,364	of 1870	Newton, A. V. ...	13,128	of 1850
" ...	1,961	of 1872	" ...	1,364	of 1870	Newton, A. V. ( <i>Casell, G.</i> ) ...	1,765	of 1860
" ...	1,843	of 1866	" ...	3,556	of 1868	Newton, A. V. ( <i>Cornelius, R.</i> ) ...	1,304	of 1862
Jodocus, P. C. A. ( <i>Franco-Netto, A. de</i> ) ...	1,751	of 1863	" ...	391	of 1869	Newton, A. V. ( <i>Southwell, D. H., Loriland, B., Ferris, C.</i> ) ...	2,341	of 1864
Johnson, R. ...	1,665	of 1854	" ...	797	of 1869			
" ...	359	of 1862	" ...	109	of 1872			
Johnson, J. H. ...	700	of 1853	" ...	1,320	of 1872			
Johnson, J. H. ( <i>Avery, J. C.</i> ) ...	2,708	of 1854						
Johnson, J. H., ( <i>Bonelli, G.</i> ) ...	191	of 1855						
Johnson, J. H. ...	875	of 1855						
" ...	2,626	of 1858						
Johnson, J. H. (a communication) ...	2,670	of 1858						
Johnson, J. H. ( <i>Batchelder, J. M.</i> ) ...	122	of 1860						
Johnson, J. H., ( <i>Worms, H.</i> ) ...	3,142	of 1860						
Johnson, J. H., ( <i>Koosen, J. H.</i> ) ...	404	of 1862						
Johnson, J. H., ( <i>Koosen, J. H.</i> ) ...	2,305	of 1862						
Johnson, J. H. ( <i>Lenoir, J. J. E.</i> ) ...	1,521	of 1866						

No.	Year	No.	Year	No.	Year
Newton, A. V. ( <i>Kidder, A.</i> )	1,979 of 1865	Redman, J. G., and		Siemens, W....	512 of 1859
Newton, A. V. ( <i>Stewart</i> )	3,282 of 1865	Martin, G....	3,012 of 1863	"	2,503 of 1859
Newton, A. V. ( <i>Stuart, L. C.</i> )	647 of 1868	Redpath, T. A., and Sher-		"	59 of 1862
Newton, C. H.	17 of 1852	ring, W. A.	3,167 of 1872	"	1,540 of 1862
Newton, H. E. ( <i>Bastet, L.</i> )	2,160 of 1869	Reed, D.	3,542 of 1867	"	261 of 1867
Newton, H. E. ( <i>Bastet, L.</i> )	3,780 of 1869	Reid, R. N.	1,603 of 1860	"	1,253 of 1868
Newton, W. E. ( <i>Beardslee, G. W.</i> )	1,647 of 1859	Reid, W.	11,974 of 1847	"	1,919 of 1872
Newton, W. E. ( <i>Wright, B. H.</i> )	1,169 of 1860	"	14,166 of 1852	Siemens, C. H.	1,473 of 1872
Newton, W. E. ( <i>Claes</i> )	2,674 of 1860	Reid J.	1,023 of 1853	"	2,923 of 1872
Newton, W. E. ( <i>Beardslee, G.</i> )	1,567 of 1861	Reeves, J.	1,146 of 1860	Silas, F.	3,103 of 1860
Newton, W. E. ( <i>Beardslee, G. W.</i> )	41 of 1863	Reithoffer, J. N. ( <i>Reit-</i>	449 of 1861	Sievier, J. C. H.	277 of 1858
Newton, W. E. ( <i>Holtzman, A.</i> )	833 of 1864	hoffer, J. N.)	2,303 of 1861	Silver, H. A.	951 of 1859
Newton, W. E. ( <i>Arman, A. L.</i> )	1,031 of 1865	Ricardo, J. L.	2,546 of 1860	"	994 of 1860
Newton, W. E. ( <i>Bloch, N.</i> )	1,503 of 1866	Ritchie, F. J.	12,262 of 1848	"	569 of 1861
Newton, W. E. ( <i>Paine, H. M., and Frost, M. S.</i> )	17 of 1870	Roberts, R. M.	169 of 1864	"	3,347 of 1865
Newton, W. E. ( <i>Paine, H. M., and Frost, M. S.</i> )	1,361 of 1871	Roberts, M. J.	776 of 1862	Silver, S. W....	3,331 of 1862
Nicoll, D.	480 of 1866	Robson, A.	14,198 of 1852	"	3,092 of 1864
"	694 of 1867	Roeber, H. G. B.	86 of 1872	Simmons, Z. G.	3,736 of 1872
"	2,460 of 1867	Roeber, B.	1,406 of 1861	Simonds, W. E.	2,235 of 1869
Noirot, J. B. J.	931 of 1861	Rogers, H. J.	3,121 of 1865	Sinnock, W.	942 of 1859
Nollet, F.	13,302 of 1850	"	2,626 of 1858	"	2,956 of 1859
Norris, L. H. ( <i>Hull, L.</i> )	2,373 of 1863	Rogers J.	2,987 of 1872	"	84 of 1860
De Nozan, C. F. L.	2,530 of 1865	"	2,192 of 1858	Sintzenich, E. R. ( <i>Reed, D.</i> )	1,164 of 1860
Oldershaw, C. E.	2,208 of 1858	"	2,756 of 1858	"	3,542 of 1867
Openshaw, J. O.	881 of 1863	"	863 of 1839	Slater, T.	212 of 1852
Owen, C.	3,512 of 1872	"	1,336 of 1868	"	595 of 1852
Paine, H. M.	17 of 1870	"	3,314 of 1870	"	1,628 of 1872
"	1,361 of 1871	Rotaud, O.	2,636 of 1866	Smith, J. T.	2,245 of 1858
"	353 of 1861	Rollason, A.	2,249 of 1860	Smith, F. O. J.	687 of 1859
"	2,675 of 1864	Rolls, J. G.	1,786 of 1872	Smith, A.	1,021 of 1852
"	2,733 of 1865	Rosencrantz, E. D.	2,552 of 1839	"	1,412 of 1854
Parnacott, E. J. W.	2,057 of 1871	Ross, A.	2,238 of 1871	"	1,325 of 1859
Partridge, W. E.	1,825 of 1866	Rosser, H. S.	2,433 of 1859	Smith, C. W.	1,749 of 1859
Pascal, J. B.	1,033 of 1857	Rostaing, C. S.	3,661 of 1868	Smith, W.	14,021 of 1852
Paterson, A. J.	708 of 1862	Rousselot, J. S.	2,764 of 1853	"	1,312 of 1853
Pearce, C. T.	12,482 of 1849	"	1,754 of 1857	"	1,848 of 1855
Péremé, P. F. L.	1,749 of 1866	Rouvre, C. M. P.	2,681 of 1864	"	1,811 of 1858
"	1,751 of 1866	Rowell, J.	2,192 of 1863	"	2,809 of 1859
Perkins, W., and Tandy, G. G.	535 of 1868	Rowett, W.	782 of 1858	"	109 of 1860
Perrin, G.	2,355 of 1860	Rowland, O.	119 of 1859	"	1,178 of 1860
Petrie, W.	8,937 of 1841	Rudling, W. A.	1,113 of 1861	"	2,056 of 1860
"	12,772 of 1849	Russel, A. J. ( <i>Anstruther, W. C.</i> )	96 of 1866	"	3,138 of 1860
"	1,4346 of 1852	"	665 of 1862	"	175 of 1861
Petrie, G.	11,926 of 1847	Rylands, J., T. G., and P.	1,907 of 1861	"	753 of 1861
Peterson, C.	1,550 of 1863	Rylands, T. G.	756 of 1871	"	413 of 1862
Peterson, J.	3,324 of 1871	Sandys, J.	731 of 1854	Smith, S.	468 of 1862
Phillips, J. O. C.	2,341 of 1865	Schottlaender, J.	9,982 of 1843	Snell, W. ( <i>Wiese, J.</i> )	1,635 of 1863
Phillips, S. E.	627 of 1870	Schneider, E.	1,812 of 1859	Snider, J., jun.	2,461 of 1862
Physick, H. V.	778 of 1852	Searle, R.	2,239 of 1838	Southworth, D. H.	2,341 of 1864
"	3,031 of 1853	"	785 of 1859	Spagnoletti, C. E.	2,542 of 1866
"	1,357 of 1854	Septuill, Comte de	800 of 1861	"	2,880 of 1866
"	764 of 1861	Serrin, V. L. M.	849 of 1852	Speed, J. J.	3,038 of 1869
Piers, Sir E. F.	2,747 of 1866	Seymour, G.	653 of 1859	Spill, D.	3,151 of 1863
Piggot, W. P.	2,957 of 1860	Seymour, P. W.	2,559 of 1859	"	3,984 of 1868
"	2,213 of 1865	Sharpe, B.	288 of 1872	"	3,102 of 1869
Piggot, G. W. R.	286 of 1872	Shaw, T. C.	2,341 of 1857	"	787 of 1870
Pinkus, H.	8,644 of 1840	Shaw, J.	2,271 of 1858	Stanley, W. F.	1,626 of 1870
Platts, W.	104 of 1863	Shepard, E. C. ( <i>Nollet, F.</i> )	2,759 of 1859	"	3,878 of 1868
Poole, M.	11,481 of 1846	Shepard, E. C.	13,302 of 1850	Stalite, W. E.	11,076 of 1846
Poole, M.	14,057 of 1852	"	14,197 of 1852	"	11,449 of 1846
Poole, M. ( <i>Goodyear</i> )	28 of 1852	"	1,587 of 1853	"	11,783 of 1847
Potter, J.	3,109 of 1861	"	4,587 of 1857	"	12,212 of 1848
Potter, A.	2,619 of 1862	Shepard, G.	2,363 of 1858	"	12,772 of 1849
Pougnaire, C.	2,310 of 1861	Sherring, W. A.	13,363 of 1850	Statham, S.	634 of 1833
Pownall, C. J.	1,187 of 1854	Siemens, E. W.	3,167 of 1872	"	1,848 of 1855
Prest, J., Harrison, H., and Roeber, B.	3,121 of 1865	Siemens, C. W.	13,062 of 1850	"	2,396 of 1855
Preece, G. E.	1,965 of 1858	"	2,180 of 1858	Stevens, G., and Henty, J.	216 of 1856
Prevost, E.	2,951 of 1868	Siemens, C. W. ( <i>Siemens, W.</i> )	459 of 1854	Stewart, L. C.	1,555 of 1870
Price, D. L.	303 of 1853	"	2,107 of 1856	Stoddart, A.	3,282 of 1865
"	2,862 of 1855	Siemens, C. W. ( <i>Siemens, W.</i> )	2,180 of 1858	"	261 of 1860
"	484 of 1857	"	87 of 1859	Storer, W., and Hancock, J.	1,931 of 1863
Prosser, W.	5 of 1853	Siemens, C. W. ( <i>Siemens, W.</i> )	512 of 1859	Stor, J.	409 of 1870
Puls, F.	2,613 of 1835	Siemens, C. W. ( <i>Siemens, W.</i> )	59 of 1862	Stroh, J. M. A.	3,028 of 1869
Pulvermacher, I. L.	12,899 of 1849	Siemens, C. W.	1,540 of 1862	"	2,172 of 1871
"	2,656 of 1861	Siemens, C. W.	464 of 1863	Stuart, L. C.	473 of 1872
"	773 of 1868	Siemens, C. W.	1,230 of 1865	Stubbs, W.	647 of 1868
Radde, W.	121 of 1872	Siemens, C. W. ( <i>Siemens, Dr. Werner</i> )	261 of 1867	Sturgeson, T.	2,238 of 1851
Ramsden, J. C.	3,520 of 1872	Siemens, C. W. ( <i>Siemens, Dr. W.</i> )	1,253 of 1868	Sykes, L. R.	3,752 of 1868
Read, W. ( <i>Read, W. H.</i> )	931 of 1856	Siemens, C. W.	3,501 of 1868	Symons, A.	1,708 of 1858
Reade, C. L. W.	3,260 of 1865	Siemens, C. W. ( <i>Siemens, W.</i> )	1,919 of 1872	"	11,751 of 1847
		Siemens, C. W. ( <i>Siemens, W.</i> )	2,923 of 1872	Talbot, W. H. F.	1,046 of 1852
				Tandy, G. G.	535 of 1868
				Tasker, M.	142 of 1871
				Tatlock, J.	2,250 of 1838
				Testelin, E.	947 of 1837
				Thiers, R.	938 of 1855
				"	2,456 of 1856
				Thomas, J.	3, 62 of 1872
				Thomson, W.	2,147 of 1872
				"	3,069 of 1870
				"	252 of 1871

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	No.	Year		No.	Year		No.	Year			
Tilston, J.	...	748	of 1861	Walenn, W. H.	...	2,587	of 1860	Whitehouse, E. O. W.	...	1,225	of 1854
Tomney, E.	...	2,685	of 1859	Walker, C. V.	...	856	of 1860	Wibratte, F.	...	222	of 1866
Tournachon...	...	508	of 1861	Walker, T.	...	2,755	of 1861	Wiese, J.	...	1,635	of 1863
Tourteau, A. J. L. H.	...	849	of 1852	"	...	2,870	of 1866	Wilde, H.	...	293	of 1858
Tregaskis, T. P.	...	2,047	of 1864	"	...	838	of 1868	"	...	858	of 1861
Tregaskis, T. P.	...	461	of 1865	"	...	2,643	of 1869	"	...	1,994	of 1861
Treve, A. H. S.	...	607	of 1859	"	...	274	of 1870	"	...	2,997	of 1861
Truman, E. T.	...	482	of 1872	Walker, J.	...	1,797	of 1858	"	...	516	of 1863
Tuck, J. H.	...	1,609	of 1857	Waller, R.	...	2,363	of 1858	"	...	2,845	of 1862
Tweed, E. J.	...	863	of 1859	Walton, F.	...	2,770	of 1860	"	...	3,240	of 1862
Tyler, E.	...	52	of 1854	"	...	3,252	of 1863	"	...	3,006	of 1863
"	...	2,895	of 1855	"	...	2,499	of 1868	"	...	1,412	of 1865
"	...	3,015	of 1861	Warne, W.	...	716	of 1859	"	...	2,762	of 1865
Utley, H. M.	...	2,238	of 1871	"	...	1,194	of 1859	"	...	3,209	of 1866
Vaglica, J.	...	2,571	of 1868	Warren, T. T. P. B.	...	537	of 1871	"	...	842	of 1867
Vaillant, C. ( <i>Vaillant, C.</i> )	...	1,924	of 1862	Watt, C.	...	13,755	of 1851	"	...	691	of 1868
Vandenhest and Co.	...	2,674	of 1860	"	...	894	of 1852	Wilder, H. B.	...	1,576	of 1870
Van Malderen, N. M.	...	1,210	of 1867	Watson, J. J. W.	...	212	of 1852	Wiles, J. F.	...	217	of 1860
Vasserot, C. F.	...	1,483	of 1858	"	...	595	of 1852	Wilkes, T.	...	2,051	of 1860
Vavin, A.	...	2,297	of 1857	"	...	5	of 1853	Wilkes, J.	...	217	of 1860
Vavin	...	398	of 1858	"	...	570	of 1853	Wilkes, G.	...	2,051	of 1860
Varley, F. H.	...	237	of 1866	Watson, J. S., and Hor-	...	63	of 1854	"	...	217	of 1860
Varley, O., & Varley, F. H.	...	2,525	of 1869	wood, A.	...	975	of 1865	Wilkins, J. W.	...	96	of 1853
Varley, O.	...	2,525	of 1869	Way, J. T.	...	2,547	of 1856	"	...	2,498	of 1853
Varley, C.	...	1,867	of 1866	"	...	1,258	of 1857	"	...	2,188	of 1858
Varley, C., and S. A.	...	3,394	of 1866	"	...	2,841	of 1857	Wilkinson, W.	...	2,307	of 1853
Varley, C.	...	3,394	of 1866	Weare, R.	...	2,661	of 1861	<i>Williams, E.</i>	...	7,386	of 1837
Varley, C., & Varley, S. A.	...	1,755	of 1867	"	...	188	of 1862	Williams, W.	...	12,991	of 1853
Varley, S. A.	...	1,976	of 1865	Webb, B. J. P.	...	1,516	of 1862	Wilson, J. G.	...	561	of 1852
"	...	237	of 1866	Webb, F. C.	...	1,825	of 1866	Wishaw, F.	...	12,079	of 1848
"	...	1,867	of 1866	Weich, E. J. C.	...	3,489	of 1869	Woodman, J.	...	335	of 1856
"	...	3,394	of 1866	Wells, A.	...	776	of 1871	"	...	1,863	of 1856
"	...	1,755	of 1867	"	...	2,411	of 1858	Woolrich, J. S.	...	9,431	of 1841
"	...	315	of 1868	Wells, A., and Hall, W.	...	2,941	of 1865	<i>Worms, H.</i>	...	3,142	of 1860
"	...	2,369	of 1868	Wetton, C. E.	...	2,941	of 1865	Wray, L.	...	2,594	of 1858
"	...	3,329	of 1868	<i>Wendell, J. P.</i>	...	3,492	of 1872	"	...	2,270	of 1858
"	...	131	of 1871	Wesolowski, M.	...	142	of 1871	Wright, J. ( <i>Minor, P. E.</i>	...	1,908	of 1871
Varley, C. F.	...	1,150	of 1871	West, C.	...	2,546	of 1860	and <i>Britton, B. F.</i> )	...	1,169	of 1860
"	...	2,555	of 1854	"	...	2,321	of 1858	Wright, B. H.	...	9,204	of 1841
"	...	1,318	of 1855	"	...	1,606	of 1861	Wright, T.	...	10,548	of 1845
"	...	206	of 1860	Wheatstone, C.	...	194	of 1862	"	...	652	of 1852
"	...	1,484	of 1861	"	...	7,390	of 1837	Young, J. H.	...	10,799	of 1845
"	...	3,078	of 1861	"	...	8,345	of 1840	Zacheroni, I.	...	2,451	of 1859
"	...	619	of 1865	"	...	9,022	of 1841	Zanni, G.	...	2,419	of 1853
"	...	3,357	of 1865	"	...	10,655	of 1845	"	...	1,443	of 1870
"	...	2,683	of 1868	"	...	1,241	of 1858	"	...	2,721	of 1871
Verdun, J. B.	...	2,457	of 1853	"	...	2,462	of 1860	"	...	3,262	of 1872
Vergnes, M.	...	1,723	of 1856	Wheatstone, C., and Stro-	...						
"	...	2,145	of 1860	J. M. A.	...	2,172	of 1871				
Vilcoq, C.	...	1,646	of 1855	Wheatstone, Sir C., and	...						
Vries, J. H.	...	100	of 1853	Stroh, J. M. A.	...	473	of 1872				
				Wheatstone, Sir C.	...	473	of 1872				



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	No.	Year		No.	Year		No.	Year
Cocoa nut fibre, Walker ...	2,613	1869	COMMUTATORS—			COMMUTATORS—		
COILS—(See also "armatures" and "generators.")	2,256	1871	Guy ...	594	1862	For field magnets,		
Wheatstone ...	9,022	1841	Potter ...	2,619	1862	Daniel and Lund ...	1,364	1870
Varley ...	131	1871	Molin ...	2,158	1864	Flat, Hjorth ...	2,199	1854
King ...	11,188	1846	Faucheux (Brandon) ...	1,368	1865	Insulated by air spaces		
Holmes ...	2,060	1868	Wilde ...	2,762	1865	Holmes ...	1,998	1857
Coupling up, Newton ...	1,744	1869	Newton ...	3,282	1865	For alternately invert-		
"	2,160	1869	Darlow ...	311	1866	ing currents, Wheat-		
"	17	1870	Baker ...	726	1866	stone ...	1,241	1858
Compound, Holmes ...	2,060	1868	Read ...	931	1866	For lamp ...	2,368	1858
On cores of T section			Carlier ...	947	1866	COMMUTATORS—Mercurial		
Johnson ...	1,210	1867	Johnson ...	1,521	1866	Pulvermacher ...	12,899	1849
With split tubular			Baker ...	1,718	1866	Grenet and Vavin ...	2,237	1857
cores, Holmes ...	1,744	1869	Gillard ...	1,878	1866	Henry ...	393	1858
Vibrating, Johnson ...	2,670	1858	Baker ...	3,039	1866	Read ...	1,647	1859
Of ribbon copper ring	11,188	1846	Wilde ...	3,209	1866	931	1866	
On permanent mag-			Baker ...	3,351	1866	Commutator, on moving		
nets, Wilder ...	691	1868	Varley ...	3,394	1866	magnet, Baker ...	726	1860
Wheatstone and Stroh	473	1872	Siemens ...	261	1867	Commutator, Multiple,		
Short circuiting, Fon-			Holmes ...	2,307	1867	Holmes ...	1,998	1857
taine Moreau ...	148	1855	Newton ...	647	1868	Commutator, preventing		
Short circuiting, New-			Holmes ...	2,060	1868	oxidation of, Newton ...	2,160	1860
ton ...	2,462	1860	Jenkin ...	390	1869	Commutator, platinum		
Short circuiting, New-			Lake ...	917	1869	roller for ...	931	1866
ton ...	647	1868	Holmes ...	1,744	1869	Commutator, of refractory		
Short circuiting,			Newton ...	2,160	1869	metal, Greenhough ...	13,613	1851
Holmes ...	1,744	1869	Varley ...	2,525	1869	Commutators, to regulate		
Slanting, Thomson ...	252	1871	Little ...	2,634	1869	current of motor, Pulver-		
COLLECTORS—(See "commutator.")			Newton ...	17	1870	macher ...	12,899	1849
Bright ...	14,331	1852	Clark ...	207	1870	Commutator, reversing,		
Kingston ...	1,134	1852	Hunt ...	1,584	1870	Tourteau ...	849	1852
Gall ...	2,677	1853	Gramme & D'Ivernois	1,668	1870	Commutator, reversing,		
Wilde ...	516	1863	Newton ...	1,861	1871	Potter ...	2,619	1862
Bellet and Rouvre ...	2,681	1864	Lake ...	2,238	1871	Commutator, with rings,		
With coils of German			Lake ...	2,439	1871	Pulvermacher ...	12,899	1849
silver wire, Pulver-			Zanni ...	2,721	1871	Commutator rods, Wiles	576	1870
macher ...	12,899	1849	Wheatstone and Stroh	473	1872	Commutators, to obviate		
With movable seg-			Lake ...	829	1872	secondary currents, Pul-		
ments, Greenhough ...	13,613	1851	Little ...	1,207	1872	vermacher ...	12,899	1849
COMMUTATORS—(See "sparkling.")			Slater ...	1,628	1872	Commutator, with silver		
Berry, Williams,			COMMUTATORS—Adjustable			plates, Callett ...	7,729	1838
Davenport ...	7,356	1837	Shepard ...	14,197	1852	COMMUTATOR—Sliding ...		
Callert ...	7,729	1838	Fontaine Moreau ...	148	1855	Talbot ...	1,046	1852
Wheatstone and Cooke	8,345	1840	Newton ...	17	1870	Hjorth ...	807	1855
Petrie ...	8,937	1841	Petrie ...	8,937	1841	Wilde ...	3,209	1866
Wheatstone ...	9,022	1841	Greenhough ...	13,613	1851	Commutator, with star		
De Moleyns ...	9,053	1841	Siemens ...	261	1867	wheel, Cunningham ...	2,702	1872
Woolrich ...	9,431	1841	Holmes ...	2,307	1867	Commutator, stationary,		
King ...	11,188	1846	Johnson ...	1,254	1872	Allan ...	2,243	1854
Hjorth ...	12,295	1848	COMMUTATOR COLLECTORS			Commutator, stationary,		
Pulvermacher ...	12,899	1849	Pulvermacher ...	12,899	1849	Fontaine Moreau ...	148	1855
Brown and Williams	12,901	1850	Shepard ...	14,197	1852	Commutator, toothed,		
Shepard (Nollet) ...	13,302	1850	Fontaine Moreau ...	148	1855	Daniel and Lund ...	1,192	1870
Millward ...	13,536	1851	Holmes ...	573	1856	Commutator, like polar-		
Greenhough ...	13,613	1851	Wilde ...	1,998	1857	ised relay, Newton ...	1,647	1859
Allan ...	14,190	1852	Newton ...	2,762	1865	Commutator, in a vacuum,		
Shepard ...	14,197	1852	Newton ...	3,282	1865	Dering ...	1,088	1854
Petrie ...	14,346	1852	Baker ...	3,039	1866	COMMUTATOR—Vibrating		
Tourteau ...	849	1852	Newton ...	647	1868	Allan ...	14,190	1852
Talbot ...	1,046	1852	Wiles ...	1,576	1870	Kaye and Openshaw ...	881	1853
Kaye and Openshaw ...	881	1853	COMMUTATORS, With Adjustable			Henley ...	2,846	1853
Bellford ...	1,562	1853	Collectors.			Siemens ...	1,253	1868
Shepard ...	1,587	1853	Holmes ...	573	1856	Little ...	2,634	1869
Henley ...	2,846	1853	"	2,060	1868	Daniel and Lund ...	1,192	1870
Dering ...	1,088	1854	COMMUTATORS, Compound—			Colophane, Warren ...	537	1871
Hjorth ...	2,198	1854	Bellford ...	1,562	1853	Compound adhesive, Gray		
"	2,199	1854	Shepard ...	1,587	1853	and Gilson ...	2,012	1858
Allan ...	2,243	1854	Newton ...	647	1868	Composition, preservative,		
Johnson ...	2,708	1854	Jones ...	2,485	1869	Bullivant ...	668	1868
Dering ...	2,759	1854	COMMUTATORS, Coupling Up—			CONDUCTORS—		
Fontaine Moreau ...	148	1855	King ...	11,188	1846	Cooke and Wheatstone	7,390	1837
Grenet ...	2,043	1855	Rousselot ...	1,754	1857	Cooke ...	7,614	1838
Holmes ...	573	1856	Shepard ...	2,987	1857	Barwise and Bain ...	8,783	1840
Vergnes ...	1,723	1856	COMMUTATORS, Directing Current			Wright and Bain ...	9,204	1841
Siemens ...	2,107	1856	Alternately to Two Engines,			Cooke ...	9,465	1842
Cumini and Hunter ...	680	1857	Kingston ...	1,131	1852	Young and McNair ...	10,799	1845
Rousselot ...	1,754	1857	COMMUTATOR, Driven Faster			Bain ...	10,838	1845
Holmes, page 65 ...			than Armature ...	931	1866	Brett ...	10,939	1845
Holmes ...	1,998	1857	Wilde ...	3,209	1866	Mapple ...	11,428	1846
Grenet and Vavin ...	2,237	1857	COMMUTATOR—DOUBLE			Poole ...	11,481	1846
Henry ...	393	1858	Cumine and Hunter ...	680	1857	Brett and Little ...	11,576	1847
Bradshaw ...	1,385	1858	Newton ...	3,282	1865	Symons ...	11,751	1847
Deffosse ...	1,889	1858	Varley ...	1,755	1867	Reid ...	11,974	1847
Waller ...	2,363	1858	Lake ...	917	1869	Highton and Highton	12,039	1848
Barclay ...	2,836	1858	Wiles ...	1,576	1870	Barlow and Forster ...	12,136	1848
Hurry ...	1,039	1859	COMMUTATORS—with inclined			Ricardo ...	12,262	1848
Newton ...	1,647	1859	divisions,			Highton ...	12,959	1850
Johnson (Worms) ...	3,142	1860	Bellford ...	1,562	1853	Siemens ...	13,062	1850
Reeves ...	449	1861	Fontaine Moreau ...	148	1855	Shepherd and Button	13,363	1850
Newton (Beardslee) ...	1,557	1861	Holmes ...	1,998	1857	Dumont ...	13,497	1851
Reeves ...	2,303	1861	Newton ...	647	1868	Chatterton ...	13,660	1851
Johnson (Koozen) ...	404	1862	COMMUTATORS—			Dundonald ...	13,698	1851
			Driven by gear, Rea l...	931	1866	Highton ...	13,938	1852
			Driven by levers, Waller	2,363	1858	Smith ...	14,021	1852

CONDUCTORS—	No.	Year	CONDUCTORS—	No.	Year	CONDUCTORS—	No.	Year
Poole ... ..	14,057	1852	Jenkin ... ..	3,236	1869	Coated with leather,		
Reid and Brett ... ..	14,166	1852	Adhesive compound for,			Branscombe ... ..	322	1861
Bright ... ..	14,331	1852	Chatterton ... ..	1,213	1859	Coated with spun glass,		
Newton and Fuller ... ..	17	1852	Adhesive compound for,			Hirsch ... ..	549	1861
Dundonald ... ..	277	1852	Daft ... ..	2,170	1859	Coated with india-		
Harrison ... ..	459	1852	Alloy for coating,			rubber and gutta-		
Fowler ... ..	481	1852	Rowland... ..	1,113	1861	percha, Evans... ..	579	1861
Hunter ... ..	511	1852	Aluminium cores, Bau-			Coated with pure india-		
Le Gras and Gilpin ... ..	566	1852	douin ... ..	333	1858	rubber, Morgan, Jay,		
Henley ... ..	680	1852	Amalgamated, Duncan... ..	2,997	1858	Edwards and Tilston	748	1861
Dundonald ... ..	740	1852	Arranged circularly,			Coated with tanned		
Mivand ... ..	750	1852	Jaloureau ... ..	3,047	1860	fibres, Duncan ... ..	1,329	1861
Physick ... ..	778	1852	Apparatus for strain-			Coated with india-		
Henley ... ..	185	1853	ing, Poole ... ..	11,481	1846	rubber, Roerber ... ..	1,406	1861
Brooman ... ..	231	1853	Apparatus for strain-			Coated with desiccated		
Price ... ..	303	1853	ing, Robson ... ..	86	1872	india-rubber, West ... ..	1,806	1861
Allan ... ..	338	1853	Apparatus for sheath-			Coated with Chatter-		
Day ... ..	405	1853	ing on board ship,			ton's compound, Sie-		
Reid ... ..	1,023	1853	Smith ... ..	1,312	1853	mens ( <i>Siemens</i> ) ... ..	59	1862
Smith ... ..	1,312	1853	Applying flexible var-			Coated with india-		
Henley ... ..	1,779	1853	nish, Poole ... ..	14,057	1852	rubber and metallic		
Allan ... ..	1,889	1853	Applying several insu-			oxides, West ... ..	194	1862
Dering ... ..	1,909	1853	lating coats simul-			Coated with marine glue,		
Wilkinson ... ..	2,307	1853	taneously, Poole ... ..	14,057	1852	Chatterton and Smith	413	1862
Callan ... ..	2,340	1853	Attached to chains,			Coated with copper,		
Cadogan ... ..	2,372	1853	Shepherd and Button	13,363	1850	Fenton and Stubbs ... ..	2,238	1862
Baudouin ... ..	2,710	1854	Attaching air cham-			Coated with asphalt,		
Guyard ... ..	83	1855	bers to, Phillips ... ..	2,341	1865	Fenton and Stubbs ... ..	2,238	1862
Johnson ... ..	191	1855	Band of wires and rub-			Coated with silk, Brooke	2,432	1862
" ... ..	875	1855	ber threads, Statham...	216	1856	Coated with graphite,		
Statham... ..	216	1856	Bent in short curves,			Snider ... ..	2,461	1862
Balestrini ... ..	2,124	1856	Story ... ..	409	1870	Coated with ballata,		
Harrison ... ..	2,483	1856	Between bituminous			Hancock and Silver... ..	3,331	1862
Mackintosh ... ..	2,707	1857	coating, Dundonald... ..	277	1852	Coated with india-		
" ... ..	2,866	1857	Between semi-circular			rubber, Bonneville		
Henry ... ..	2,868	1857	troughs ... ..	405	1853	( <i>Gérard</i> )... ..	1,668	1863
Henley ... ..	3,020	1857	Bi-metallic, Dering ... ..	1,909	1853	Coated with collodion,		
Highton ... ..	3,101	1857	Parke ... ..	353	1861	Bonneville ( <i>Gérard</i> )... ..	1,668	1863
Dering ... ..	18	1858	Wilde ... ..	3,240	1862	Coating with shellac,		
Chatterton ... ..	252	1858	Bituminous pipes for			Mulholland ... ..	2,396	1863
Siever ... ..	277	1858	containing, Hargreaves	261	1862	Coated with cotton,		
Wilde ... ..	293	1858	Braided, Appold... ..	1,828	1858	Hancock and Silver ... ..	3,092	1864
Baudouin ... ..	333	1858	Hall and Wells ... ..	2,411	1858	Coated with india-		
Harder ... ..	444	1858	Johnson ... ..	2,626	1858	rubber, Mulholland... ..	2,025	1865
Rowett ... ..	782	1858	" ... ..	2,329	1866	Coated with cork, Guy... ..	2,088	1865
Chatterton ... ..	883	1858	Branch pipes for,			Coated with canvas,		
Hancock... ..	1,268	1858	Jaloureau ... ..	2,137	1858	Inkpen ... ..	2,326	1865
Newall ... ..	1,379	1858	Brass coated, Daft ... ..	2,170	1859	Coated with collodion,		
Vasserot... ..	1,483	1858	Bringing ends of, out of			Macintosh ... ..	2,332	1865
Clark ... ..	1,491	1858	pipes, Cooke ... ..	7,614	1838	Coated with asbestos,		
De Bergue ... ..	1,605	1858	Buffers for coupling,			Bonneville ( <i>Nozan</i> )... ..	2,530	1865
Buckingham, Hum-			Price ... ..	303	1853	Coated with silica,		
frey and Sykes ... ..	1,708	1858	Buoyant, Haye and			Clifford ... ..	3,938	1868
De Bergue ... ..	1,740	1858	Bloom ... ..	2,467	1857	Coated with foil, Foucault	2,008	1869
Crispin ... ..	1,742	1858	Searle ... ..	2,239	1858	Coating several wires at		
Molesworth ... ..	687	1859	Frost ... ..	1,152	1859	once, Allan ... ..	1,889	1853
Wilkes ... ..	217	1860	Carried on flat chain,			Coatings marked in order		
Siemens ... ..	519	1860	Story ... ..	409	1870	to identify, Clark ... ..	1,491	1858
Newbold ... ..	912	1860	Carrying overhead ... ..	Page 89		Coating with rubber		
Reid ... ..	1,146	1860	Coated with thread			cloth, Newton ( <i>Claes</i>		
Hooper ... ..	1,546	1860	and resin, Young and			<i>Vanderhest and Co.</i> )... ..	2,674	1860
Silas ... ..	3,108	1860	McNair ... ..	10,799	1845	Coating copper with		
Moulton ... ..	290	1861	Coated with thread and			lead, Needham ... ..	637	1864
Parke ... ..	353	1861	pitch, Young and			Coating, Abel ... ..	1,962	1865
Morgan, Jay, Edwards			McNair ... ..	10,799	1845	Coating with india-		
and Tilston ... ..	748	1861	Coated with tar mapple	11,428	1846	rubber, Macintosh ... ..	2,332	1865
Searle ... ..	800	1861	Coated with india-			Coating with cork, Jones	2,309	1865
Rowland... ..	1,113	1861	rubber and sulphur,			Colling, Newall ... ..	1,091	1865
Morris, Weare and			Poole ... ..	28	1852	Coiled like warp threads,		
Monckton ... ..	2,661	1861	Coated with rubber, yarn			Nicholl ... ..	480	1866
Dacey ... ..	3,170	1861	and wire, Henley ... ..	680	1852	Combination of iron or		
Siemens ( <i>Siemens</i> ) ... ..	59	1862	Coated with several			steel wires, Dering ... ..	18	1885
Chatterton and Smith	413	1862	metals of high resis-			Combined with chain		
Russell ( <i>Bensa and</i>			tance, Sievier ... ..	277	1858	cables, Ker ... ..	329	1861
<i>Anstruther</i> )... ..	665	1862	Coated with nickel,			CONDUCTORS, Compound—		
Fenton and Stubbs ... ..	2,238	1862	Siever ... ..	277	1858	Gilpin ... ..	779	1854
Brae ... ..	2,007	1863	Coated with tin, Sievier	277	1858	Physick ... ..	1,357	1854
Rowell ... ..	2,192	1863	Coated with Indian			Rogers ... ..	2,192	1855
Mulholland ... ..	2,386	1863	grass fibre, Rowett ... ..	782	1858	Walker ... ..	1,797	1858
Wilde ... ..	3,006	1863	Coated with india-			" ... ..	2,250	1858
Henley ... ..	1,126	1864	rubber and heated			Clark ... ..	2,891	1858
Watson and Horwood	975	1865	with sulphuric acid,			" ( <i>Rosenkrantz</i> ) ... ..	2,552	1859
Mulholland ... ..	2,025	1865	Macintosh ... ..	1,000	1858	Varley ... ..	206	1860
Piggott ... ..	2,213	1865	Coated with twine, De			Wilkes ... ..	217	1860
Macintosh ... ..	2,332	1865	Bergue ... ..	1,605	1858	" ... ..	2,051	1860
Hubert ... ..	2,605	1865	Coated with fibre and			Bonelli ... ..	2,457	1860
Nicholl ... ..	480	1866	surrounded by hemp			Parke ... ..	353	1861
Bonneville ... ..	1,749	1866	strands, Crispin ... ..	1,742	1858	Wilde ... ..	3,240	1862
Marshall ... ..	3,192	1866	Coated with drying oils,			Boggett ... ..	2,416	1865
Nicoll ... ..	694	1867	Walton ... ..	2,770	1860	" ... ..	3,180	1865
Gray ... ..	1,770	1867	Coated with cork dust,			" ... ..	3,299	1865
Martin and Varley ... ..	315	1868	Chatterton and Smith	3,138	1860	Varley ... ..	3,357	1865
Walker ... ..	838	1868	Coated with india-			Bonneville ... ..	1,749	1866
Collingridge ... ..	2,712	1869	rubber, Moulton ... ..	260	1861	Lake ... ..	2,052	1866

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CONDUCTORS, Compound—	No.	Year	CONDUCTORS—	No.	Year	CONDUCTORS—	No.	Year
Johnson ... ..	2,329	1866	Covered with platinum.			Enclosed in a metal		
Walker ... ..	2,870	1866	Rosser ... ..	2,433	1859	tube, Ker ... ..	329	1861
Johnson ... ..	212	1867	Covered with tarred			Enclosed in metal pipes,		
Allan ... ..	2,241	1867	yarn, Keirby ... ..	2,871	1860	Walker ... ..	2,755	1816
Johnson ... ..	1,136	1869	Covered with cane,			Enclosed in flexible or		
Rogers ... ..	3,314	1870	Duncan ... ..	2,980	1860	jointed tube, Paterson	708	1862
Mallock ... ..	1,792	1871	Covered with cane,			Enclosed in india-		
Lake ... ..	1,847	1872	Duncan ... ..	1,329	1861	rubber tubes, Laming	1,482	1862
Metallic woven tapes,			Covered with vulcanite			Enclosed in leaden tubes		
Duncan ... ..	2,997	1858	at supports, Varley...	3,078	1861	Laming ... ..	1,482	1862
Compound for coating,			Covered with hemp,			Enclosed in wooden		
Snell ... ..	1,635	1863	Newton ( <i>Arman</i> ) ...	1,031	1865	tubes, Brooke ... ..	2,432	1862
Compressing, Newall ...	1,350	1857	Covering with gums, &c.,			Enclosed in a jointed		
CONDUCTORS, Concentric—			Dundonald ... ..	277	1852	metallic casing,		
Searle ... ..	2,245	1858	Covering painted, with			Platts and Bailey ...	104	1863
Maynard ... ..	2,434	1858	mixture of caout-			Enclosed in a cord,		
Duncan ... ..	2,997	1858	chouc, &c., Harrison...	459	1852	Chattaway ... ..	1,733	1863
Clark ... ..	607	1859	Covering wrapped heli-			Enclosed in an india-		
( <i>Rosencrantz</i> ) ... ..	2,552	1859	cally by die, Physick...	778	1852	rubber tube, Brae ...	2,007	1863
Gullemmin ... ..	1,209	1860	Covering of calico im-			Enclosed in iron pipes,		
Parke ... ..	2,733	1865	pregnated with insu-			Wilde ... ..	3,006	1863
Varley ... ..	3,357	1865	lating medium, Physick	778	1852	Enclosed in iron tubes,		
Lake ... ..	2,052	1866	Coverings heated with			Newton ( <i>Holtzman</i> ) ...	833	1864
Johnson ... ..	212	1867	creosote, De Bergue	1,740	1858	Enclosed in rails, Broo-		
Connecting to light-			Curing rubber coatings			man ( <i>Laloubère</i> ) ...	269	1865
ships, Cockshott ... ..	412	1872	of, Fuller ... ..	2,815	1862	Enclosed in glass pipes,		
Consolidating stranded,			Defending from insects,			Marsden ... ..	2,161	1865
Reid ... ..	1,146	1860	Erckmann ... ..	235	1854	Enclosed in metal		
Consolidating stranded,			Deoxidising the surface			tubing, Marsden ...	2,161	1865
Chatterton and Smith	1,178	1860	of, Mulholland ... ..	2,025	1865	Enclosed, in tubes, Mee	2,509	1865
Consolidating stranded,			Die for sheathing, Physick	778	1852	Enclosed in a metallic		
Harrison ... ..	2,116	1860	Dispensing with, Lindsay	1,242	1854	tube, Bonneville ( <i>Nozan</i> )	2,530	1865
Consolidating, Berrens...	3,192	1865	Dividing, McEvoy ...	2,085	1872	Enclosed in steel, Webb	3,489	1869
Coiled consolidating			Drawing, Clark ( <i>Rosen-</i>			Enclosed in jointed		
strands, Gray ... ..	1,772	1867	<i>crantz</i> ) ... ..	2,552	1859	pipes, Henley ... ..	3,657	1869
Consolidating, Story ...	409	1870	Dressing yarn for cover-			Enveloped in oiled cloth,		
Rogers ... ..	3,314	1870	ing, Harby ... ..	236	1862	Brett ... ..	12,054	1848
Contained in hempen			Earth currents in,			Enveloped in sheet lead,		
rope, Allan ... ..	338	1853	Whitehouse ... ..	1,225	1854	Siemens ... ..	13,062	1850
Cooling, Gray ... ..	1,772	1867	Earth resistance obviat-			Examining, Gray and		
Copper wire silver plated,			ing insulation, Dering	1,939	1853	Gibson ... ..	1,771	1867
Chatterton ... ..	252	1858	Elastic, Alsterdam ...	2,449	1857	Extensible, Stoddart ...	261	1860
Core of hemp, Henley ...	3,020	1867	Maynard ... ..	2,419	1858	Fabric for insulating,		
Corrugated tubular,			Fletcher ... ..	2,773	1853	Mendel ... ..	2,387	1863
Searle ... ..	2,245	1858	Lake ... ..	142	1871	Ferrules for joining,		
Corrugated, Morgan,			Electro-deposited, Bar-			Potter ... ..	3,109	1861
Jay, Edwards and			clay ... ..	2,835	1858	Fibrous cord sur-		
Tilston ... ..	748	1861	Eliminating inductors			rounded by metal,		
CONDUCTORS, Coupling—			in, Gullemmin ... ..	1,209	1860	Vasserot ... ..	1,483	1858
Symons ... ..	11,751	1847	Embedded in railway			Field telegraph, Cadogan	2,372	1853
Brown and Williams	12,991	1850	carriages, Symons ...	11,751	1847	Filling pores of di-		
Mirand ... ..	750	1852	Embedded in asphalt,			electric Mackintosh ...	1,560	1860
Price ... ..	303	1853	Reid ... ..	11,974	1847	Filling pores of di-		
Siemens ... ..	459	1854	Embedded in tarred			electric, Highton ...	1,279	1872
Pownall ... ..	1,187	1854	hemp, Piggott ... ..	2,957	1860	Filling pores of di-		
Price ... ..	2,862	1855	Embedded in india-			electric, Highton ...	2,547	1872
Blaquiere ... ..	434	1857	rubber, Marsden ...	2,161	1865	Fixed in communica-		
Wilde ... ..	1,687	1857	Embedded in gutta-			tion with locomotive,		
Clark, Braithwaite and	293	1858	percha, Marsden ...	2,161	1865	Johnson ... ..	191	1855
Preese ... ..	1,965	1858	Enamelling gutta-percha			Fixed in communica-		
Bleakley ... ..	1,904	1858	coverings, Highton ...	12,959	1850	tion with locomotive,		
Duncan ... ..	2,997	1858	Encased in leaden pipes,			Guyard ... ..	83	1855
Hedson ... ..	423	1859	Reid ... ..	11,974	1847	Flat rope, Lewis ... ..	1,050	1855
Hooper ... ..	47	1860	Encased in metallic			Flattened, Daft ... ..	2,170	1859
Godfrey ... ..	1,978	1860	tubes, Highton ...	12,959	1850	Flexible, Frost ... ..	1,152	1859
Nicholl ... ..	480	1866	Encased in iron tubes,			Newton ... ..	1,169	1860
Newton ... ..	1,226	1866	Shepherd and Button	13,363	1850	For railway trains, Reid	11,974	1847
Farmer, Partridge and			Encased in cotton,			For railway trains,		
Webb ... ..	1,825	1866	Physick ... ..	1,357	1854	Bazin ... ..	2,070	1862
Spagnoletti ... ..	2,542	1866	Encased with ... lead,			For railway trains, Chat-		
" ... ..	2,880	1866	Henry ... ..	2,868	1857	taway ... ..	1,733	1863
Hosking ... ..	3,287	1866	Encased in lead, Sievier	277	1855	For railway trains, Brae	2,007	1863
McComb ... ..	951	1867	Encased in lead, Gode-			For railway trains,		
Allan ... ..	2,241	1867	froy ... ..	1,978	1860	Gordon ... ..	1,543	1865
" ... ..	2,480	1867	Encased in animal			Freeing from ice, Lyttle	3,556	1868
Rogers ... ..	1,336	1868	powder, Aspinall ...	2,941	1868	From balloons, Bobœuf	759	1854
Sturgeon ... ..	3,752	1868	Encased in lead, Green	3,490	1868	Gilt, Evans ... ..	579	1861
Spagnoletti ... ..	3,098	1869	Encasing in lead, Mar-			De la Haye ... ..	2,948	1865
McEvoy ... ..	10	1871	shall ... ..	1,878	1866	Grooved metallic rib-		
Robson ... ..	86	1872	Encasing in lead, Mar-			bon, Searle ... ..	785	1859
McEvoy ... ..	832	1872	shall ... ..	3,192	1866	Grooved, Searle ... ..	800	1861
Siemens ... ..	1,473	1872	Encasing joints of,			Grouped in flat bands,		
Gilbert ... ..	1,753	1872	McEvoy ... ..	10	1871	Bonneville ... ..	1,749	1866
McEvoy ... ..	2,085	1872	Enclosed in lead tubes,			Gutta-percha heated		
Chapin ... ..	2,973	1872	Young and McNair ...	10,799	1845	with sulphuric acid,		
Owen ... ..	3,512	1872	Encased in masonry or			Mackintosh ... ..	2,866	1857
CONDUCTORS—			cement, Highton ...	12,959	1850	Helical, Drayson and		
Covered with pipes,			Encased in lead, Harrison	2,483	1856	Binney ... ..	2,326	1858
Dundonald ... ..	277	1852	Encased in lead, Chat-			Helical, Clark ... ..	2,891	1858
Covered with horsehair,			terton and Smith ...	1,178	1860	Clark ... ..	607	1859
Hancock ... ..	1,233	1853	Encased in air-tight			Searle ... ..	785	1859
Covered with fibre, De			boxes, Glass ... ..	2,991	1863	Moulton ... ..	260	1861
Bergue ... ..	1,605	1858	Encased in pipes,			Morgan, Jay, Edwards		
			Jalourcau ... ..	3,047	1863	and Tilston ... ..	748	1861

CONDUCTORS—			CONDUCTORS, insulated with—			CONDUCTORS, insulating—		
	No.	Year		No.	Year		No.	Year
Helical, Brae ... ..	2,007	1863	Bitumen, Siemens ...	519	1860	Hooper ... ..	47	1860
Rostaing... ..	3,661	1868	" Jaloureaux ...	3,047	1860	Gisborne ... ..	93	1860
Monckton ... ..	3,147	1869	" Brooman ...			Johnson ( <i>Batchelder</i> )	122	1860
Homogeneous metal,			" ( <i>Lalouère</i> ) ...	269	1865	Varley ... ..	206	1860
Henley ... ..	1,126	1864	" Bonneville ...	1,751	1866	Newton ... ..	1,169	1860
Impermeable pipes for,			" Jaloureaux and			Chatterton and Smith	1,178	1860
Jaloureaux ... ..	2,137	1858	" Lardy ... ..	2,942	1867	Guillemin ... ..	1,209	1860
In a vacuum, Cahill ...	117	1854	Coal tar products,			Collyer ... ..	1,329	1860
In bitumen, Brett ...	10,939	1845	McDougall ... ..	943	1859	Mackintosh ... ..	1,560	1860
In circular webbing,			Cotton, Watson and			Barnwell and Rollason	2,249	1860
Carter ... ..	3,046	1867	Horwood ... ..	975	1865	Duncan ... ..	2,980	1860
In concrete blocks,			Glass beads, Searle ...	800	1861	West ... ..	194	1862
Peterson... ..	3,324	1871	Gun cotton, Macintosh	1,090	1858	Hooper ... ..	505	1863
In corrugations of metal,			India-rubber, Siemens			Rowell ... ..	2,192	1863
Wilkinson ... ..	2,307	1853	( <i>Siemens</i> ) ... ..	59	1862	Henley ... ..	1,126	1864
In earthenware tubes,			India-rubber, Bastida			Macintosh ... ..	2,332	1865
Harrison ... ..	459	1852	( <i>Cohen &amp; Vaillant</i> )...	1,924	1862	Berrens ... ..	3,192	1865
In exhausted tubes,			Opposing electromotive			Silver ... ..	3,347	1865
Becker ... ..	190	1868	force, Fitzgerald ...	501	1869	Hutton ... ..	195	1866
In jointed shield, Higham	31	1858	Organic fibre, Laming ...	1,482	1862	Bonneville ... ..	1,749	1866
In lead tubes, Wheat-			Oxides, Varley ... ..	2,525	1869	Marshall... ..	1,989	1866
stone ... ..	10,655	1815	Ozokerite, Matthiessen...	3,778	1869	Lake ... ..	2,052	1866
In place of sheathing			Paper pulp, Devlan ...	2,131	1862	Marshall ... ..	3,192	1866
wire, Varley ... ..	2,683	1838	Paraffined cotton cord,			Nicoll ... ..	691	1867
In troughs on posts, Bain	10,838	1845	Marshall... ..	3,587	1869	Marshall ... ..	1,022	1867
In troughs of wood,			Pitch, Dodson ... ..	397	1862	Jaloureaux and Lardy	2,942	1867
Newton and Fuller... ..	17	1852	" Newton ( <i>Holtz-</i>			Hooper ... ..	939	1868
In trench below sea,			<i>man</i> ) ... ..	833	1861	Gray and Hawkins ...	2,505	1868
Brooman ... ..	231	1853	Silk, Russell ( <i>Bensa and</i>			Heasler ... ..	3,268	1868
In tube, Drayson and			<i>Anstruther</i> ) ... ..	603	1862	Lyttle ... ..	3,556	1868
Binney ... ..	2,326	1858	Silk, Watson and Hor-			Rostaing... ..	3,661	1863
In voltaic combination,			wood ... ..	975	1865	Gray ... ..	531	1869
Fitzgerald ... ..	3,696	1869	Slate, Dodson ... ..	397	1862	Varley ... ..	2,525	1869
In wire tubes, Searle...	2,239	1858	Spun glass, Hirsch ...	47	1861	Walker ... ..	274	1870
In wooden beads, Chat-			Tubes, Hancock ... ..	2,857	1859	Storey ... ..	409	1870
terton and Smith ...	1,178	1860	Viscid material, Hughes	84	1859	Phillips ... ..	627	1870
Increasing buoyancy of,			Wood, Godefroy ... ..	1,978	1860	Spill ... ..	1,626	1870
Phillips ... ..	2,341	1865	Xyloidine, Whitehouse...	3,224	1868	Rogers ... ..	3,314	1870
India-rubber encased			CONDUCTORS, insulated—			Dick ... ..	272	1870
with lead, Henry ... ..	2,868	1857	Electrolytically, Fitz-			Lake ... ..	142	1871
India-rubber tubes for			gerall ... ..	3,696	1869	Warren ... ..	537	1871
insulating, Noirot ...	981	1861	Doubly, Hooper ... ..	881	1859	Truman ... ..	482	1872
Inoxidisable, Varley ...	3,357	1865	CONDUCTORS, insulating—			CONDUCTORS, insulating com-		
Inserting in pipes,			Brett and Little ...	11,576	1817	pound for—		
Mapple ... ..	11,428	1846	Brett ... ..	12,054	1818	Siemens ... ..	13,062	1850
Insulated with thread			Wishaw ... ..	12,079	1818	Coating, Ghislin ...	2,661	1860
and varnish, Cooke			Duncan ... ..	2,997	1858	Ker ... ..	329	1861
and Wheatstone ...	7,390	1837	Highton ... ..	13,938	1852	Hancock and Silver ...	3,331	1862
Insulated by hemp,			Smith ... ..	14,021	1852	Peterson... ..	1,550	1863
Barwise and Bain ...	8,743	1840	Dundonald ... ..	277	1852	Norris ( <i>Holt</i> ) ... ..	2,373	1863
Insulated with cotton,			Harrison ... ..	459	1852	Mulholland ... ..	2,386	1863
Reid ... ..	11,974	1867	Cahill ... ..	117	1854	Abel ... ..	1,962	1865
Insulated by beads,			Statham and Smith ...	1,848	1855	Mulholland ... ..	2,025	1865
Highton and Highton	12,039	1848	Balestrini ... ..	2,039	1855	CONDUCTORS, insulating—		
Insulated with fillets			Gordon ... ..	2,089	1855	With chapapote, Arrieta	271	1861
of gutta-percha, Bar-			Statham ... ..	2,336	1855	With india-rubber juice,		
low and Forster ...	12,136	1848	Balestrini ... ..	2,124	1856	Siemens ... ..	464	1863
Insulated with gutta-			Harrison... ..	2,483	1856	Coatings treated with		
percha, Chatterton ...	13,660	1851	Fonrobert ... ..	2,747	1856	phosphorus, Mulhol-		
Insulated in bitumen,			Chatterton ... ..	883	1858	land ... ..	2,386	1863
Dundonald ... ..	13,698	1851	Macintosh ... ..	1,090	1858	Coatings applied in		
Insulated by fibre,			Walker ... ..	1,797	1858	vacuo, Mulholland ...	2,386	1863
Dundonald ... ..	13,698	1851	Light ... ..	1,818	1858	With fibrous cords,		
Insulated with bitumen,			Clark, Braithwaite,			Bailey and Speed ...	3,151	1863
Poole ... ..	14,057	1852	and Preece ... ..	1,965	1858	With oxidised oil,		
Insulated with india-			Wilkins and Dunn ...	2,188	1858	Walton ... ..	3,252	1863
rubber, Poole ... ..	14,057	1852	Oldershaw ... ..	2,208	1858	With saline bodies,		
Insulated with gutta-			Searle ... ..	2,239	1858	Needham ... ..	637	1864
percha, Poole ... ..	14,057	1852	Hope ... ..	2,251	1858	With india-rubber, New-		
Insulated and suspended			West ... ..	2,321	1858	ton ( <i>Southworth, Lor-</i>		
by marine glue, Bright	14,331	1852	Hall and Wells ...	2,411	1858	<i>willard &amp; Ferris</i> ) ...	2,341	1864
Insulated with baked			Hancock... ..	2,714	1858	With milk of ballata,		
caoutchouc, &c., Allan	1,889	1853	Rogers ... ..	2,756	1858	Hancock and Silver ...	3,092	1864
Insulated with paper,			Horstmann ... ..	434	1859	By opposing electromo-		
Cahill ... ..	117	1854	Sinnock ... ..	912	1859	tive force, Fitzgerald	2,576	1868
Insulated by bitumen,			Silver ... ..	951	1859	With xyloidine, Spill...	767	1870
Baudouin ... ..	2,710	1854	Glass ... ..	1,269	1859	Material for, Brown ...	1,310	1864
Insulated by fatty			Smith ... ..	1,749	1859	Material for, Parkes ...	2,675	1864
varnish, Baudouin ...	2,710	1854	Gurney ... ..	1,767	1859	CONDUCTORS, iron—		
Insulated with cocoa-			Drake ... ..	1,812	1859	Allan ... ..	1,889	1853
nut, Godefroy ... ..	1,268	1855	Gisborne and Magnus	2,079	1859	Coated with alloy,		
Insulated with carbon,			Daft ... ..	2,170	1859	Callan ... ..	2,340	1853
Girard ... ..	869	1857	Mackintosh ... ..	2,269	1859	Or steel wires, Dering...	18	1858
Insulated with bitumen,			Godefroy ... ..	2,402	1859	Wire, Fenton and Stubbs	2,238	1862
Baudouin ... ..	933	1857	Zacheroni ... ..	2,454	1859	Wire, Wilde ... ..	3,006	1863
Insulated with woven			Siemens ... ..	2,503	1859	CONDUCTORS, joining—		
fabric, Baudouin ...	933	1857	Hamer ... ..	2,546	1859	Hooper ... ..	1,546	1860
Insulated to stand tropi-			Seymour... ..	2,559	1859	Jaloureaux ... ..	3,047	1860
cal heat, Mackintosh	2,866	1857	De Matthys ... ..	2,710	1859	Duncan ... ..	1,329	1861
CONDUCTORS, insulated with—			Coignet ... ..	2,757	1859	Rylands, Rylands and		
Animal substances,			Chatterton and Smith	2,809	1859	Rylands ... ..	1,907	1861
Seymour... ..	2,559	1859	Hancock ... ..	2,857	1859	Brooman ( <i>Pognaire</i>		
Asbestos, Marshall			Magnus and Sinnock	2,956	1859	<i>and Bourcy</i> )... ..	2,310	1861
( <i>Erckmann</i> ) ... ..	362	1863						

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	No.	Year		No.	Year		No.	Year
<b>CONDUCTORS, Joining—</b>			<b>CONDUCTORS—</b>			<b>CONDUCTORS, Overhead—</b>		
Potter ... ..	3,109	1861	Laying in perforated blocks, Becker ...	130	1868	Highton ... ..	13,998	1852
Siemens ( <i>Siemens</i> ) ...	59	1862	Laying under footways, Hurd ... ..	3,432	1871	Bright ... ..	14,331	1852
Johnson ... ..	359	1862	Lengths of troughs and lid breaking joint, Newton and Fuller ...	17	1852	Highton ... ..	108	1854
Bastida ( <i>Cohen and Vaillant</i> ) ... ..	1,924	1862	Lids of troughs for, Henley ... ..	1,779	1853	Rowland... ..	1,113	1861
Hooper ... ..	505	1863	Light, De Bergue ...	1,605	1858	Becker ... ..	3,609	1867
Brae ... ..	2,007	1863	Linen tapes for sheathing, Walton ... ..	3,252	1863	<b>CONDUCTORS, Pipes for—</b>		
Mulholland ... ..	2,386	1863	Machine for applying insulating material, Barlow and Forster ...	12,136	1848	Jaloureaux ... ..	2,137	1858
Wilde ... ..	3,006	1863	Machine for braiding, Brown and Williams ...	12,991	1850	Hurd ... ..	3,432	1871
Henley ... ..	1,126	1864	Machine for covering, Shepard ( <i>Nollet</i> ) ...	13,302	1850	Lake ... ..	121	1872
Fuller ... ..	98	1865	<b>CONDUCTORS, Machinery for Insulating—</b>			<b>CONDUCTORS, Plough for laying—</b>		
Brooman ( <i>Lalouère</i> ) ...	269	1865	Ricardo ... ..	12,262	1848	Fowler ... ..	481	1852
Gordon ... ..	1,543	1865	Duncan ... ..	2,997	1858	Dundonald ... ..	740	1852
Varley ... ..	3,357	1865	Siemens ... ..	2,503	1859	Henley ... ..	185	1853
<b>Pipes containing, Newton (<i>Holtzman</i>) ...</b>	833	1864	Collyer ... ..	1,329	1860	<b>CONDUCTORS, Preserving—</b>		
Keeping central in dielectric, Gray ...	531	1869	Evans ... ..	1,561	1860	Dundonald ... ..	277	1852
Killing, Rylands ... ..	256	1871	Miller ... ..	924	1861	Highton ... ..	232	1857
<b>CONDUCTORS, Laid in—</b>			Roerber ... ..	1,406	1861	West ... ..	2,321	1853
Artificial stone, Coignet	2,757	1859	Siemens ... ..	59	1862	Mulholland ... ..	2,386	1863
Asphalte, Wright and Bain ... ..	9,204	1841	Walton ... ..	3,252	1863	Redman and Martin... ..	3,012	1863
Bain ... ..	9,745	1843	Lorillard and Ferris... ..	2,341	1864	Gray ... ..	1,770	1867
" ... ..	10,838	1845	Macintosh ... ..	2,332	1865	Bullivant ... ..	668	1868
Nicoll ... ..	480	1866	Marshall... ..	3,587	1869	Pigott ... ..	286	1872
Bitumen, Baudouin ...	2,710	1854	Lake ... ..	2,106	1871	<b>CONDUCTORS—</b>		
Davies ... ..	1,097	1857	Truman ... ..	482	1872	Return currents by lead covering, Young and McNair ... ..	10,799	1845
Collyer ... ..	1,275	1860	<b>CONDUCTORS, Machinery for Sheathing—</b>			Scraping contacts of, Sturgeon... ..	3,752	1868
Nicoll ... ..	480	1866	Smith ... ..	1,312	1853	<b>CONDUCTORS, Sheathed with—</b>		
Cast-iron pipes, Mapple Delperdange ... ..	11,428	1846	Henley ... ..	1,325	1859	Galvanised wires, Harrison ... ..	459	1852
Delperdange ... ..	1,307	1867	Joy ... ..	1,905	1859	Helical riband, Bright... ..	14,331	1852
Cast-iron pipes, boxes, Highton ... ..	3,101	1857	Sincock ... ..	2,521	1859	Hempen cords, Russell ( <i>Bensa &amp; Anstruther</i> ) ...	665	1862
Cement, Wright and Bain ... ..	9,204	1841	Webb ... ..	3,489	1869	Lead, Chatterton ... ..	13,660	1851
Channels, Collyer ... ..	1,275	1860	Marshall... ..	3,587	1869	Harrison ... ..	459	1852
Earthenware, Gee ... ..	486	1858	Fenwick ... ..	1,192	1870	Metal strips, Bright ... ..	14,331	1852
Earthenware pipes, Wishaw ... ..	12,079	1848	Newall ... ..	611	1871	Hirsch ... ..	549	1861
Kerb, Beamish ... ..	1,574	1870	Made into bands, Baudouin ... ..	933	1857	Dacey ... ..	3,170	1861
Lead pipes, Cooke ... ..	7,614	1838	Made in segments, Clark, Braithwaite & Preece	1,965	1858	Fuller ... ..	98	1865
Mapple ... ..	11,428	1846	Making gutta-percha adhere, Dering ...	18	1858	Metallic tube, Marshall	3,587	1869
Mastic blocks, Baudouin	933	1857	Making pipes for, Harper	2,380	1868	Sectoral strips, Harrison	1,199	1855
Multitubular blocks, Baudouin ... ..	2,710	1854	Metal coated, Callan ...	1,606	1854	Sliced cane, Ker... ..	329	1861
Paraffin, Nicoll ... ..	480	1866	Metal ribbon, Gurney ...	1,767	1859	Steel riband, Bonneville	1,749	1866
Pipes, Reid and Brett ...	14,166	1852	<b>CONDUCTORS, Multiple—</b>			Whalebone, Ker ... ..	329	1861
Greenough ... ..	1,285	1859	Harrison ... ..	2,483	1856	<b>CONDUCTORS, Sheathing—</b>		
Godefroy... ..	1,978	1860	West ... ..	2,321	1858	Physick ... ..	773	1852
Delperdange ... ..	1,307	1867	Rosser ... ..	2,433	1859	Henley ... ..	185	1853
Pitch, Wright and Bain	9,204	1841	Hirsch ... ..	549	1861	Cahill ... ..	117	1854
Railway sleepers, Bain	9,745	1843	Walton ... ..	3,252	1863	Gilpin ... ..	779	1854
Resinous Cement, Cooke and Wheatstone ... ..	7,990	1837	Mulholland ... ..	2,025	1865	Statham and Smith ...	1,848	1855
Spirals, Buchanan ... ..	3,070	1869	Piggott ... ..	2,213	1865	Gordon ... ..	2,089	1855
Trench, Wright and Bain	9,204	1841	Hubert ... ..	2,605	1865	Rogers ... ..	2,192	1858
Gilpin ... ..	779	1854	Martin and Varley ...	2,369	1868	Statham ... ..	2,336	1855
Troughs, Cooke and Wheatstone ... ..	7,990	1837	Foucault ... ..	2,008	1869	Balestrini ... ..	2,124	1856
Reid ... ..	11,974	1847	Clark ... ..	2,177	1869	Henley ... ..	2,769	1856
Davies ... ..	1,097	1857	<b>CONDUCTORS, Non-induction covering for, Clark, Braithwaite and Preece ... ..</b>	1,965	1858	Sharpe ... ..	2,341	1857
Rowland ... ..	119	1859	Nozzles for insulating, Gray and Gibson ...	2,012	1868	Absterdam ... ..	2,449	1857
Shaw ... ..	2,759	1859	<b>CONDUCTORS, Obviating induction—</b>			Buckingham, Humfrey and Sykes ... ..	1,708	1858
Walker ... ..	856	1860	Clark ... ..	2,956	1853	Archer ... ..	1,773	1858
Wood pavement, Bain ...	9,745	1843	Balestrini ... ..	211	1857	Walker ... ..	1,797	1858
Wood rails, Cook and Wheatstone ... ..	7,990	1837	Tatlock ... ..	2,250	1858	Appold ... ..	1,823	1858
Laid on a rope, Dundonald ... ..	13,698	1851	Clark ... ..	607	1859	Light ... ..	1,848	1858
Laid on a hempen core, Newton ( <i>Arman</i> ) ... ..	1,031	1865	Laming ... ..	2,217	1865	Oldershaw ... ..	2,208	1858
<b>CONDUCTORS, Laying—</b>			Walker ... ..	2,643	1869	Maynard... ..	2,434	1858
Siemens ... ..	13,062	1850	<b>CONDUCTORS, Of electro-deposited metal, Elkington ...</b>	2,525	1870	Fletcher ... ..	2,773	1858
Balestrini ... ..	211	1857	Of phosphor bronze, Dick	2,827	1872	Duncan ... ..	2,997	1858
Davies ... ..	1,097	1857	On steel core, Berrens ...	3,192	1865	Barclay ... ..	329	1859
Gee ... ..	486	1858	<b>CONDUCTORS, Overhead—</b>			Horstmann ... ..	494	1859
Greaves ... ..	1,752	1858	Highton and Highton	12,039	1848	Kirkman ... ..	897	1859
Jaloureaux ... ..	2,137	1858			Rogers and Tweed ...	863	1859	
Walker ... ..	856	1860			Chatterton ... ..	1,213	1859	
Collyer ... ..	1,275	1860			Smith ... ..	1,749	1859	
Godefroy ... ..	1,978	1860			Gurney ... ..	1,767	1859	
Rudling ... ..	96	1866			Drake ... ..	1,812	1859	
Bonneville ... ..	1,751	1866			Gisborne and Magnus	2,079	1859	
Kilner ... ..	1,015	1867			Godefroy ... ..	2,402	1859	
Delperdange ... ..	1,307	1867			Rossa ... ..	2,433	1859	
Nicoll ... ..	2,480	1867			Zacheroni ... ..	2,454	1859	
Beamish... ..	1,574	1870			De Matthys ... ..	2,710	1859	
Lake ... ..	109	1872			Siemens ... ..	619	1860	
Laying in pipes, Baylis... ..	2,225	1858			Grantham, Sincock and Magnus ... ..	1,164	1860	
Laying in troughs, Nicoll	480	1866			Newton ... ..	1,169	1860	
Laying in channels Marshall... ..	1,022	1867			Guillemin ... ..	1,209	1860	
					Piggott ... ..	2,957	1860	
					Duncan ... ..	2,980	1860	
					Chatterton and Smith	3,138	1860	
					Chatterton and Smith	175	1861	
					Moulton ... ..	260	1861	
					Morgan, Jay, Edwards and Tilston... ..	748	1861	

	No.	Year		No.	Year		No.	Year
<b>CONDUCTORS, Sheathing—</b>			<b>CONDUCTORS woven into a</b>			<b>ELECTRIC LAMP, Actuated by—</b>		
Searle ... ..	800	1861	fabric—			Chain and barrel, Staite	12,772	1849
Duncan ... ..	1,929	1861	Cooke ... ..	9,465	1842	and Petrie ... ..	12,772	1849
Chatterton and Smith	413	1862	Statham and Smith ...	1,948	1855	Fall of mercury, Lacas-	2,456	1856
Siemens ... ..	464	1863	Newton ... ..	1,765	1860	sagne and Thiers ...	119	1853
Mulholland ... ..	2,386	1863	Bonelli ... ..	2,457	1860	Fluid pressure, Binks ...	2,811	1857
Walton ... ..	3,252	1863	<b>CONDUCTORS, Zigzag—</b>			Way ... ..	12,276	1848
Needham ... ..	637	1864	Highton ... ..	13,938	1852	Gaseous pressure, All-	12,276	1848
Henley ... ..	1,126	1864	Contact breaker, Siemens	261	1867	man ... ..	1,033	1857
Newton ( <i>Southworth,</i>			Cotton seed oil, Rogers ...	1,336	1868	Pascal ... ..	12,482	1849
<i>Lorillard &amp; Ferris</i> )	2,341	1864	Cut-off, Newton ... ..	647	1868	Springs or weights,	12,772	1849
Mulholland ... ..	2,025	1865	<b>CURRENTS—</b>			Pearce ... ..	12,772	1849
Piggott ... ..	2,213	1865	Alternate, Hjorth ... ..	2,198	1854	Weights, Staite & Petrie		
Laming ... ..	2,217	1865	Auxiliary, Johnson ... ..	2,708	1854	<b>ELECTRIC LAMP, Arc—</b>		
De la Hay ... ..	2,948	1865	Constant, Varley ... ..	3,394	1866	Wright ... ..	10,548	1845
Bogget ... ..	5,180	1865	Continuous, Shepard			Staite ... ..	11,419	1846
Bonneville ... ..	1,749	1866	( <i>Nollet</i> ) ... ..	13,302	1850	" ... ..	11,783	1847
Lake ... ..	2,052	1866	Discharger, Jenkin ... ..	390	1869	" ... ..	12,212	1848
Rostaing ... ..	3,661	1868	Governor, Pulvermacher	12,899	1849	Le Molt ... ..	12,219	1848
Johnson ... ..	1,136	1869	Indicator, Staite ... ..	634	1853	Allman ... ..	12,276	1848
Webb ... ..	3,489	1869	Induced, Dering ... ..	2,759	1854	Pearce ... ..	12,482	1849
Brooks, Brooks and			Balestrini ... ..	211	1857	Staite and Petrie ...	14,198	1852
Bestwick ... ..	344	1870	Utilising, Newton ... ..	647	1868	Roberts ... ..	14,330	1852
Silica for coating ... ..	3,252	1863	Induction, Shepard			Jackson ... ..	212	1852
<b>CONDUCTORS, Straining—</b>			( <i>Nollet</i> ) ... ..	13,302	1850	Slater and Watson ...	119	1853
Reid ... ..	11,974	1847	Inductor, Jackson ... ..	14,330	1852	Binks ... ..	634	1853
Highton ... ..	12,959	1850	Interrupting, Holmes ...	2,060	1868	Staite ... ..	1,806	1853
" ... ..	13,938	1852	Measurement, Pulver-			Fontaine Moreau ...	739	1855
Henley ... ..	680	1852	macher ... ..	773	1868	Chapman ... ..	2,456	1856
Rowell ... ..	2,192	1863	Preventing retardation			Lacassagne and Thiers	588	1857
<b>CONDUCTORS, Stretching—</b>			of, Newton ... ..	17	1870	Harrison ... ..	1,033	1857
Cooke ... ..	9,465	1842	Prolonging duration of,			Pascal ... ..	653	1859
Brett and Little ... ..	11,576	1847	Varley ... ..	3,394	1866	Clark ... ..	1,628	1872
Baudouin ... ..	2,710	1854	Regulator, Slater and			Slater ... ..		
<b>CONDUCTORS, Submarine—</b>			Watson ... ..	212	1852	<b>ELECTRIC LAMP—</b>		
Smith ... ..	14,021	1851	Dering ... ..	1,088	1854	Combined with vol-	1,033	1857
Reid and Brett ... ..	14,166	1852	Varley ... ..	2,525	1869	tameter, Pascal ...	2,368	1857
Bright ... ..	14,331	1852	Secondary, utilising,			Cooling, Clarence ...	14,198	1848
Harrison ... ..	459	1852	Fontaine Moreau ... ..	148	1855	Differential, Lacassagne	2,456	1856
Henley ... ..	680	1852	Hjorth ... ..	807	1855	and Thiers ... ..	588	1857
" ... ..	185	1853	Martin, Varley and			Flashing, Harrison ...	739	1857
Bauer ... ..	1,281	1853	Martin ... ..	237	1866	Focussing, Chapman ...	739	1857
Allan ... ..	1,889	1853	Sub-dividing, D'Ivernois	1,917	1870	Horizontal, Chapman...	739	1855
Churchill ... ..	458	1862	<b>Demagnetising, Potter...</b>	2,619	1862	<b>ELECTRIC LAMP, Incandescence—</b>		
Laming ... ..	1,482	1862	Desiccating, Clark, Braith-			King ... ..	10,919	1845
Brooke ... ..	2,432	1862	waite and Preece ... ..	1,965	1858	Greener and Staite ...	11,076	1846
<b>CONDUCTORS, Subterranean—</b>			"Dielectric." ( <i>See also</i> " <i>Insulating</i>			Staite ... ..	11,440	1846
Wishaw ... ..	12,079	1848	<i>Compound.</i> ")			" ... ..	12,212	1848
Bright ... ..	14,331	1852	<b>DIELECTRIC—</b>			Shepard ( <i>Nollet</i> ) ...	13,302	1850
Dundonald ... ..	277	1852	Godefroy ... ..	1,268	1855	Roberts ... ..	14,198	1852
Henley ... ..	680	1852	Hughes ... ..	67	1857	Konn ... ..	3,809	1872
Allan ... ..	1,889	1853	Bedson ... ..	129	1857	<b>ELECTRIC LAMP, Incandescence</b>		
<b>CONDUCTORS, Testing—</b>			Warne, Fanshawe,			Arc—		
Roland ... ..	2,836	1866	Jacques and Galpin	1,194	1859	Harrison ... ..	588	1857
Siemens ... ..	13,062	1850	Gisborne and Magnus	2,079	1859	Shepard ... ..	2,368	1858
Reid ... ..	1,023	1853	Mackintosh ... ..	2,269	1859	In series, King ... ..	10,919	1845
Murray ... ..	2,678	1860	Godefroy ... ..	2,402	1859	Intermittent, Staite ...	12,212	1848
Chatterton and Smith	3,138	1860	Magnus and Sinnock	2,956	1859	Roberts ... ..	14,198	1852
Jenkin ... ..	2,155	1865	Hooper ... ..	47	1860	<b>ELECTRIC LAMP, Regulating—</b>		
<b>CONDUCTORS, Tinned—</b>			Gisborne ... ..	93	1860	Staite ... ..	11,783	1847
Hope ... ..	2,251	1858	Johnson ( <i>Batchelder</i> )	122	1860	Le Molt ... ..	12,219	1848
Newton ( <i>Claes, Van-</i>			Causing to adhere, Wray	2,270	1858	Allman ... ..	12,276	1848
<i>denhest and Co.</i> ) ...	2,674	1860	Filling pores of, Chatter-			Staite and Petrie ...	12,772	1849
Knight ... ..	963	1863	ton and Smith ... ..	2,809	1859	Staite ... ..	634	1853
Macintosh ... ..	2,332	1865	Chatterton and Smith ...	109	1860	Lacassagne & Thiers	2,456	1856
Warren ... ..	537	1871	Diospyros embrooptens,			Harrison ... ..	588	1857
Mallock ... ..	1,792	1871	Wray ... ..	2,270	1858	Pascal ... ..	1,033	1857
<b>CONDUCTORS, Triple—</b>			Distributing wheel, ( <i>See</i> " <i>Comm-</i>			Shadowless, Fontaine		
Gordon ... ..	1,543	1865	<i>tator.</i> ")			Moreau ... ..	1,806	1853
<b>CONDUCTORS, Troughs for—</b>			Distributor, Barclay ...	56	1859	<b>ELECTRIC LAMP with—</b>		
Henley ... ..	680	1852	Drypile, Thomson ... ..	252	1871	Abutment pole, iridium,		
" ... ..	1,779	1853	Dynamic engine, Green-			Way ... ..	2,841	1857
<b>CONDUCTORS, Tubular—</b>			hough ... ..	13,613	1851	Clarence ... ..	2,368	1858
Statham ... ..	216	1856	Dynamic principle, Mill-			Adjustable carbon		
Parkes ... ..	353	1861	ward ... ..	13,536	1851	holder, Staite ... ..	11,783	1847
Watson and Horwood	975	1865	Dynamic principle, John-			Annular carbons, Binks	119	1853
Parkes ... ..	2,733	1865	son ... ..	2,670	1858	Approaching and reced-		
Lake ... ..	2,052	1866	Dynamo-electric generator, ( <i>See</i> " <i>Gene-</i>			ing carbons, Roberts	14,198	1852
<b>CONDUCTORS, Varnishing—</b>			<i>rator, dynamo.</i> ")			Brake, Staite ... ..	11,783	1847
Wheatstone ... ..	10,655	1845	Earth plates, Walker ...	838	1868	Chapman ... ..	739	1855
Hancock ... ..	2,616	1858	Electric cylinders, Gall ...	2,677	1853	Cams, Roberts ... ..	14,198	1852
Wilde ... ..	3,006	1863	Electric glow, Pinkus ...	8,644	1840	Carbon on float, La-		
Dick ... ..	272	1870	Electricity, attracting,			cassagne and Thiers	2,456	1856
<b>CONDUCTORS, Vulcanising—</b>			Gillard ... ..	1,878	1866	Circular carbons, Pearce	12,482	1849
Silver ... ..	3,347	1865	<b>ELECTRIC LAMP—</b>			Clockwork, Staite ...	12,212	1848
<b>CONDUCTORS with—</b>			Way ... ..	2,547	1856	Roberts ... ..	14,198	1852
Vitreous covering, Warne,			Harrison ... ..	588	1857	Binks ... ..	119	1853
Fanshawe, Jaques and			Way ... ..	1,258	1857	Fontaine Moreau ...	1,806	1853
Galpin ... ..	716	1859	Harrison ... ..	1,412	1857	Harrison ... ..	588	1857
<b>CONDUCTORS, Woven sheathing, Sin-</b>			Way ... ..	2,841	1857	Commutator, Clarence	2,368	1858
<b>nock ... ..</b>	942	1859	Shepard ... ..	2,368	1858	Counterbalanced carbon,		
<b>CONDUCTORS—</b>						Jackson ... ..	14,330	1852
Wound helically, Har-						Divided carbon holder,		
rierson ... ..	2,483	1856				Chapman ... ..	739	1855

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	No.	Year		No.	Year		No.	Year
<b>ELECTRIC LAMP with—</b>			<b>ELECTRIC LIGHT Applied to—</b>			<b>ELECTRODES—</b>		
Expanding metallic bar,			Balloon, Bauer ...	590	1860	Multiple, D'Ivernois ...	1,917	1870
Allman ...	12,276	1848	Buoys, Mironde ...	1,651	1866	Non-consuming, Jackson	14,330	1852
Float, Pascal ...	1,033	1857	Siemens ...	261	1867	On metal fork, Binks ...	119	1853
Harrison ...	1,412	1857	Jenkin ...	390	1869	Parallel, Binks...	119	1853
Flowing electrode, Way	2,547	1856	Gordon ...	847	1865	Pitch, Binks ...	119	1853
Way ...	1,258	1857	Burglary, Gordon ...	1,543	1865	Way ...	2,547	1856
Harrison ...	1,412	1857	Diving, Deschamps and			Platinum, copper and		
Way ...	2,841	1857	Vilcog ...	1,646	1855	pipe-clay, Staite ...	11,449	1846
Fly, Clark ...	653	1859	Tuck ...	1,609	1857	Plumbago, Wright ...	10,548	1845
Gearing on swing frame,			Bauer ...	590	1860	Preventing excessive		
Chapman ...	739	1855	Fanshawe ...	2,580	1862	convection, Slater and		
Gripping levers, Roberts	14,198	1852	Fishing, Jodocius			Watson ...	212	1852
Slater and Watson ...	212	1852	( <i>Franca-Netto</i> ) ...	1,751	1863	Residuum of tar, Hunt	282	1858
Horizontal carbons,			Photography, Henry			Rotating, Wright ...	10,548	1845
Staite ...	634	1853	( <i>Tournachon</i> ) ...	508	1861	Harrison ...	588	1857
Fontaine Moreau ...	1,806	1853	Railway tunnels, Barnett	2,292	1861	Clarke ...	653	1859
Make and break, Way ...	1,258	1857	" trains, Gordon	847	1865	In silica or China clay,		
Oscillating system,			Signalling, Staite ...	11,449	1846	Harrison ...	1,099	1858
Clark ...	653	1859	Wilson ...	561	1852	Soaked in alum or lime,		
Piston, Staite ...	11,449	1846	Watson ...	63	1854	Slater and Watson ...	212	1852
Rack and pawl, Slater			Harrison ...	588	1857	Steel, Way ...	2,547	1856
and Watson ...	212	1852	Way ...	1,258	1857	Vibrating, Harrison ...	588	1857
Rack and pinion ar-			Silas ...	3,103	1860	<b>ELECTRO-MAGNETS—</b>		
angement, Jackson ...	14,330	1852	Barnett ...	2,682	1861	Wheatstone ...	9,022	1841
Ratchet feed, Staite ...	12,212	1848	Morris, Weare and			De Moleyns ...	9,053	1841
Relay, Pascal ...	1,033	1857	Monckton ...	188	1862	Mapple ...	11,428	1846
Rocking magnet, Roberts	14,198	1852	Barnett ...	1,207	1862	Bright ...	14,331	1852
" beam, Allman	12,276	1848	Holton ...	1,398	1862	Slater and Watson ...	212	1852
Rotating carbon, Staite	11,783	1847	Johnson ...	1,308	1867	Kingston ...	1,134	1852
Le Molt ...	12,219	1848	Sounding water, Har-			Wilkins ...	2,498	1853
Pearce ...	12,482	1849	rison ...	588	1857	Harrison ...	1,714	1854
Harrison ...	588	1857	Electro-depository metals,			Varley ...	1,318	1855
Several arcs, Slater and			Woolrich ...	9,431	1841	Testelin ...	947	1857
Watson ...	212	1852	<b>ELECTRODES—</b>			Birkbeck ...	2,355	1860
Solenoid, Staite ...	11,783	1847	Wright ...	10,548	1845	Wheatstone ...	2,462	1860
Staite ...	12,212	1848	Watson and Prosser...	5	1853	Siemens ...	59	1862
" ...	634	1853	Binks ...	119	1853	Monckton ...	2,772	1862
Spring carbon holder,			Harrison ...	588	1857	Clark ( <i>Cazal</i> ) ...	1,386	1864
Roberts ...	14,198	1852	" ...	1,412	1857	Clark ...	2,854	1868
Spring grippers, Har-			Burleigh and Danchell	3,164	1857	Burroughs ...	3,363	1869
rison ...	588	1857	Hunt ...	282	1858	Newton ...	17	1870
Slater ...	1,628	1872	Monckton ...	1,503	1867	Stevens and Hendy ...	1,555	1870
Stream of water, Har-			Fitzgerald and Molloy	1,376	1872	Alternate layers of con-		
rison ...	1,099	1858	ductors and sheet iron,			De Moleyns ...	9,053	1841
Torsional arrangement,			Way ...	2,841	1857	Arrangement of, Newton	3,282	1865
Clark ...	653	1859	Approaching and reced-			Bent copper band, Slater		
Tubular carbon holder,			ing, Binks, ...	119	1853	and Watson ...	212	1852
Staite and Petrie ...	12,772	1849	Balanced by weight,			Coiled with metal rib-		
Vibrated carbons, Binks	119	1853	Staite ...	12,212	1848	bon, Testelin ...	947	1857
Wheelwork, Staite ...	11,783	1847	Balanced in liquids,			Wheatstone ...	9,022	1841
Clark ...	653	1859	Binks ...	119	1853	Coil surrounded with		
<b>ELECTRIC LIGHT—</b>			Beech charcoal, Slater			iron cylinder, Stevens		
Pinkus ...	8,644	1840	and Watson ...	212	1852	and Hendy ...	1,555	1870
De Moleyns ...	9,053	1850	Carbon, Harrison ...	1,412	1857	Compound, Wilkins ...	2,498	1853
Wilson ...	561	1852	Carbon and metal,			Hirth ...	807	1855
Watson and Slater ...	595	1852	Harrison ...	588	1857	Burroughs ...	3,363	1869
Watson ...	570	1853	Carbon solidified, Bur-			Concentric, Poole ...	11,481	1846
Harrison ...	1,099	1858	leigh and Danchell	3,164	1857	Construction of, Holmes	2,060	1868
Bauer ...	590	1860	Compressed, Harrison...	588	1857	Core divided into sec-		
Wilde ...	3,006	1863	Concentric, Binks ...	119	1853	tions, Bright ...	14,331	1852
Jenkin ...	390	1869	<b>ELECTRODES, Disc—</b>			Encased in soft iron,		
Combined with gas ...	2,613	1855	Wright ...	10,548	1845	Varley ...	1,318	1855
Combined with oxyhy-			Staite (partly a com-			Iron plates in U form,		
drogen light, Watson	570	1853	munication) ...	12,212	1848	Kingston ...	1,134	1852
Condenser, Varley ...	2,555	1854	Binks ...	119	1853	Keeper curved to mag-		
Diffusing, Keeling ...	81	1863	Harrison ...	588	1857	netic curves, Poole...	11,481	1846
Globes for, Verdun ...	2,457	1853	" ...	1,412	1857	Neutralising induction		
Flashing, Way ...	1,258	1857	<b>ELECTRODES, Double—</b>			in, Burroughs ...	3,363	1869
From heated surfaces...	8,644	1840	Harrison ...	1,412	1857	Nickel, Poole ...	11,481	1846
From inductive cur-			<b>ELECTRODES on float—</b>			Kingston ...	1,134	1852
rents, Harrison ...	588	1857	Staite ...	634	1853	Parallel, Albini and		
From platinum helix,			Pascal ...	1,033	1857	Vaglica ...	2,571	1868
De Moleyns ...	9,053	1841	Harrison ...	1,099	1858	Kingston ...	1,134	1852
From sparks, Siemens...	261	1867	Clarence ...	2,368	1858	Reversing polarity, New-		
From stream of carbon			<b>ELECTRODES, Flowing—</b>			ton ...	3,282	1865
particles, De Moleyns	9,053	1841	Way ...	2,547	1856	Softening, Prevost ...	2,951	1868
Incandescence, De Mo-			" ...	1,258	1857	Soft iron, between cop-		
leyms ...	9,053	1841	Harrison ...	1,412	1857	per bands, Slater and		
Green and Staite ...	11,076	1845	" ...	1,099	1858	Watson ...	212	1852
Puls ...	2,613	1855	<b>ELECTRODES—</b>			Spiral conductor on a		
Incandescence arc, Staite	11,449	1846	Graphite, Watson and			flat plate, Wheatstone	9,022	1841
Increasing, D'Ivernois...	1,917	1870	Prosser ...	5	1853	With coil or neutral		
In globes, Wright ...	10,548	1845	Lignite, Binks ...	119	1853	portion, Johnson ...	2,708	1854
In rarefied or compressed			Liquified by current,			With compound coils,		
gases in sealed globes,			Harrison ...	1,412	1857	Clark ...	255	1872
Pinkus ...	8,644	1840	Manufacture of, Church	11,010	1845	With concentric cores,		
Intermittent, King ...	10,919	1845	Melted, Harrison ...	1,412	1857	Piers ...	2,747	1866
In vacuo, De Moleyns ...	9,053	1841	Mercurial, Harrison ...	588	1857	Stevens and Hendy ...	1,555	1870
Shepard ( <i>Nollet</i> ) ...	13,302	1850	Harrison ...	1,099	1858	With cores of flat plates,		
Morris, Weare and			Clarence ...	2,368	1858	Siemens ...	1,253	1868
Monckton ...	188	1862	Multiple, Slater and			Newton ...	17	1870
Weare and Monckton	1,516	1862	Watson ...	212	1852	With foil between ad-		
Jodocius ( <i>Franca-</i>			Multiple, Binks ...	119	1853	acent coils, Newton ...	17	1870
<i>Netto</i> ) ...	1,751	1863						

	No.	Year		No.	Year		No.	Year
<b>ELECTRO-MAGNETS—</b>			<b>GENERATOR, Electro-magnetic—</b>			<b>GENERATOR, Magneto-electric—</b>		
With interposed metal sheets, Burroughs ...	3,363	1869	Holmes ... ..	2,060	1868	Holmes ... ..	2,665	1868
With iron caps, Varley ...	1,318	1855	Varley ... ..	2,525	1863	Lyttle ... ..	3,556	1868
With nickel cores, Brown and Williams ...	12,991	1850	Excited by earth's magnetism, Knight ...	2,457	1851	Henley ... ..	2,603	1869
With polar masses, Siemens ... ..	13,062	1850	Exciting magnets of, Wilde ... ..	2,762	1867	Zanni ... ..	1,445	1870
With short cores, Martin, Varley and Martin ...	237	1866	<b>GENERATOR, Field magnets of—</b>			Gramme & D'Ivernois ...	1,668	1870
With sliding core, Birkbeck ... ..	2,355	1860	King ... ..	11,188	1846	Zanni ... ..	3,245	1870
With split tubular cores, Siemens ... ..	13,062	1855	Hjorth ... ..	2,198	1851	Varley ... ..	131	1871
With wire core, Sandys Harrison ... ..	731	1854	Exciting magnets of, Wilde ... ..	3,006	1863	Welch ... ..	776	1871
Winding, Prevost ... ..	2,951	1868	For "exploding fuses, Welch ... ..	776	1871	Varley ... ..	1,150	1871
Lyttle ... ..	391	1869	For telegraphing, Wilde ...	2,997	1861	Wheatstone and Stroh ...	2,172	1871
Wound with compound wire, Cunningham ...	2,702	1872	Wilde ... ..	2,845	1861	Zanni ... ..	2,721	1871
Wound with insulated wire, Clark ( <i>Carlter</i> ) ...	22	1865	For testing iron, Knight ...	2,400	1862	Henley & Horstmann ...	2,800	1871
Wound with rectangular wire, Dering ... ..	2,750	1854	<b>GENERATOR, Magneto-electric—</b>			Bonneville ... ..	375	1872
Electromotive force, opposing, Varley ... ..	2,525	1869	Wheatstone and Cooke ...	8,345	1840	Wheatstone and Stroh ...	473	1872
Electro-phorous, Newton ( <i>Cornelius</i> ) ...	1,304	1862	Wheatstone ... ..	9,022	1841	Johnson ... ..	1,254	1872
Euphorbia, Rolls ... ..	1,766	1872	Woolrich ... ..	9,431	1841	Fitzgerald and Molloy ...	1,376	1872
<b>FIELD MAGNETS—</b>			Schottlaender ... ..	9,982	1843	Slater ... ..	1,628	1872
Slater ... ..	1,628	1872	King ... ..	11,188	1846	Siemens ... ..	1,919	1872
Annular, Fontaine Moreau ...	148	1855	Poole ... ..	11,481	1846	" ... ..	2,923	1872
Arranged tangentially, Wheatstone ... ..	9,022	1841	Hatcher ... ..	11,634	1847	Redpath and Sherring ...	3,167	1872
Circular, Wheatstone and Stroh ... ..	2,172	1871	Dujardin ... ..	11,894	1847	Zanni ... ..	3,262	1872
Compound, Holmes ... ..	2,307	1867	Henley and Forster ...	12,236	1848	Ramsden ... ..	3,520	1872
Conical faced, Wheatstone ... ..	9,022	1841	Hjorth ... ..	12,295	1848	Henry ... ..	3,692	1872
Exciting, Baker ... ..	1,718	1866	Pulvermacher ... ..	12,899	1849	<b>GENERATOR on railway vehicle—</b>		
Baker ... ..	3,039	1866	Brown and Williams ...	12,991	1850	Hjorth ... ..	12,295	1848
Varley ... ..	3,394	1866	Newton ... ..	13,128	1850	Rousselot ... ..	2,764	1853
Siemens ... ..	261	1867	Shepard ( <i>Nollet</i> ) ... ..	13,302	1850	Watson ... ..	63	1854
Monckton ... ..	1,503	1867	Millward ... ..	13,536	1851	Tyer ... ..	2,895	1855
Varley ... ..	1,755	1867	Bain ... ..	14,146	1852	Morris, Wear and Monckton ... ..	1,516	1862
Holmes ... ..	2,307	1867	Allan ... ..	14,190	1852	Redpath and Sherring ...	3,167	1872
Lake ... ..	917	1869	Shepard ... ..	14,197	1852	Evans ... ..	3,666	1872
Holmes ... ..	1,744	1869	Roberts ... ..	14,198	1852	Oscillating, Shepard ( <i>Nollet</i> ) ...	13,302	1850
Gramme and D'Ivernois ...	1,668	1870	Bright ... ..	14,331	1852	Tyer ... ..	3,015	1861
In series or parallel, Siemens ... ..	216	1867	Petrie ... ..	14,346	1852	Short circuiting at dead points, Wilde ... ..	1,412	1865
Reducing power of, Varley ... ..	2,525	1869	Legras and Gilpin ... ..	497	1852	Rolling, Shepard ( <i>Nollet</i> ) ...	13,302	1850
With flattened cores, Lake ... ..	197	1869	Bellford ... ..	1,562	1853	<b>GENERATOR of static electricity—</b>		
<b>FLASHING LIGHTS—</b>			Shepard ... ..	1,587	1853	Mumby ... ..	55	1852
Staitte ... ..	11,449	1846	Rousselot ... ..	2,764	1853	Brackenbury ... ..	842	1852
Pearce ... ..	12,482	1849	Henley ... ..	2,840	1853	Wilkins ( <i>Vries</i> ) ... ..	100	1853
<b>GALVANOMETER—</b>			Tyer ... ..	52	1854	Varley ... ..	206	1860
Varley ... ..	1,867	1866	Knight ... ..	2,457	1854	Wesolowski ( <i>Reithoffer</i> ) ...	2,546	1860
Siemens ... ..	261	1867	Tyer ... ..	2,895	1855	Newton ( <i>Cornelius</i> ) ...	1,304	1862
With segmental coils, Varley ... ..	1,867	1866	Holmes ... ..	573	1856	Thompson ... ..	2,147	1867
With soft iron star-like index, Varley ... ..	1,867	1866	Siemens ... ..	2,107	1856	Varley ... ..	3,329	1868
Gas apparatus, Bianchi ...	613	1852	Henley ... ..	2,769	1856	Stanley ... ..	3,878	1868
<b>GENERATOR—</b>			Rousselot ... ..	1,754	1857	Brandon ... ..	3,178	1869
Coupling coils, Delfosse ...	1,880	1858	Holmes ... ..	1,998	1857	Thomson ... ..	252	1871
<b>GENERATOR, Dynamo-electric—</b>			Shepard ... ..	2,987	1857	Bonneville ... ..	375	1872
Hjorth ... ..	2,198	1851	Wheatstone ... ..	1,241	1858	Lake ... ..	783	1872
Varley ... ..	806	1855	Delfosse ... ..	1,889	1858	" ... ..	3,299	1872
Siemens ... ..	3,394	1866	Zanni ... ..	2,419	1858	Hydro-electric, Shaw & Cooper ... ..	2,271	1858
Siemens ... ..	261	1867	Siemens ... ..	512	1859	<b>GENERATOR, with—</b>		
Varley ... ..	1,755	1867	Newton ... ..	1,647	1859	Annular magnets, Pulvermacher ... ..	12,899	1849
Holmes ... ..	2,321	1867	Wheatstone ... ..	2,462	1860	Tyer ... ..	3,015	1861
" ... ..	2,307	1867	Walenn ... ..	2,587	1860	Armature coils, parallel to axis, Wilde ... ..	3,209	1866
Lake ... ..	917	1869	Johnson ( <i>Worms</i> ) ...	3,142	1860	Armature moved by cam, Watt ... ..	834	1852
Holmes ... ..	1,744	1869	Henley ... ..	734	1861	Circular magnet in circular coils, Siemens ...	261	1867
Varley ... ..	2,525	1869	Newton ( <i>Beardslee</i> ) ...	1,567	1861	Coil between poles of magnets, Petrie ... ..	14,346	1852
Gramme & D'Ivernois ...	1,668	1870	Wilde ... ..	1,991	1861	Coils in loose tubes, Petrie ... ..	14,346	1852
Auto-exciting, Hjorth ...	806	1855	Henley ... ..	2,464	1861	Coils on permanent magnet, Siemens ... ..	512	1859
<b>GENERATOR, Electric—</b>			Pulvermacher ... ..	2,656	1861	Wheatstone ... ..	2,462	1860
Bairatt ... ..	9,786	1843	Wilde ... ..	2,997	1861	Holmes ... ..	2,665	1868
Gillard ... ..	1,878	1866	Tyer ... ..	3,015	1861	Currents reversed successively, Bellford ...	1,562	1853
<b>GENERATOR, Electro-magnetic—</b>			Siemens ( <i>Siemens</i> ) ...	59	1862	Cylindrical grooved armature, Siemens ( <i>Siemens</i> ) ...	59	1862
Wheatstone ... ..	10,655	1845	Siemens ( <i>Siemens</i> ) ...	1,540	1862	Electro-magnet excited by battery, Wheatstone ...	10,655	1845
Watt ... ..	834	1852	Garside ... ..	2,307	1862	Fixed armatures, Newton ...	1,647	1859
Walenn ... ..	2,587	1860	Monckton ... ..	2,772	1862	Fixed helices, Bain ... ..	14,146	1852
Wilde ... ..	858	1861	Gisborne ... ..	3,434	1862	Helices wound on tubes, Shepard ... ..	14,197	1852
" ... ..	1,412	1865	Newton ( <i>Beardslee</i> ) ...	41	1863	Hollow cores and helix filled with water, Newton ... ..	13,128	1850
Newton ( <i>Kidder</i> ) ... ..	1,979	1865	Wilde ... ..	516	1863	Iron rings between poles of field magnets, Petrie ...	14,346	1852
Wilde ... ..	3,209	1866	Ritchie ... ..	169	1864	Keeper on locomotive and coils on track, Henley and Horstmann ...	2,800	1871
			Clark ( <i>Cazal</i> ) ... ..	1,386	1864			
			Collette ( <i>Faucheux</i> ) ...	2,486	1864			
			Newton ( <i>Kidder</i> ) ... ..	1,979	1865			
			Wilde ... ..	2,762	1865			
			Clark ( <i>DeLaunay</i> ) ...	3,124	1866			
			Varley ... ..	3,394	1866			
			Wilde ... ..	842	1867			
			Johnson ... ..	1,210	1867			
			Monckton ... ..	1,503	1867			
			Mennons ( <i>Hjorth</i> ) ...	1,611	1867			
			Varley ... ..	1,755	1867			
			Martin and Varley ...	315	1868			
			Wilder ... ..	691	1868			
			Siemens ... ..	1,253	1868			
			Holmes ... ..	2,012	1863			

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GENERATOR, with—		No.	Year	INCANDESCENCE—		No.	Year	INSULATORS—		No.	Year
Oscillating action, Henley	734	1861	For heating, Watson and Slater	595	1852	For overhead wires, Hunter	511	1852	Hunter	511	1852
Wilde	853	1861	In exhausted globe, Roberts	14,198	1852	Henley	680	1852	Henley	680	1852
Varley	3,394	1866	Of carbon and platinum, Greener and Staitte	11,076	1846	Kilner	827	1852	Kilner	827	1852
Dujardin	11,894	1847	Of iron or platinum, Watson and Slater	595	1852	Liddell	14,343	1852	Liddell	14,343	1852
Revolving coils, Walenn	2,587	1860	Of platinum and pipe-clay, Watson and Slater	595	1852	Wilkins	96	1853	Wilkins	96	1853
Revolving core, Petrie	14,346	1852	Thin strips, Greener and Staitte	11,076	1846	Edwards	149	1853	Edwards	149	1853
Ring of helices, Slater	1,623	1872	Wire for cutting, Ramsden	3,520	1872	Farrel	2,371	1853	Farrel	2,371	1853
Ring rotated through helices, Roberts	14,198	1852	INDIA-RUBBER—			Henley	2,846	1853	Henley	2,846	1853
Ring supported on rollers, Roberts	14,198	1852	Consolidating, Warren	537	1871	Green	3,007	1853	Green	3,007	1853
Rotating core of soft iron, Wheatstone	1,241	1858	Curing, Bastida (Cohen and Vaillant)	1,924	1862	Tyer	52	1854	Tyer	52	1854
Rotating keeper, Dujardin	11,894	1847	Reworking, Hooper	47	1860	Erckmann	235	1854	Erckmann	235	1854
Knight	2,457	1854	Treated with iodine, bromine, &c., Warren	537	1871	Siemens	459	1854	Siemens	459	1854
Henley	2,769	1856	Used in natural state, Hall and Wells	2,411	1858	Physick	1,357	1854	Physick	1,357	1854
Ritchie	169	1864	Indicator of current, Slater and Watson	212	1852	Woodman	335	1856	Woodman	335	1856
Several armatures, Wheatstone	9,022	1841	Slater and Watson	212	1852	Newall	876	1856	Newall	876	1856
Sheet copper coils, Wilde	1,412	1865	Staitte	634	1853	Woodman	1,668	1856	Woodman	1,668	1856
Siemens armature, Wilde	516	1863	Induced current, King	11,188	1846	Clark	2,831	1856	Clark	2,831	1856
Split coils, Delfosse	1,889	1858	Shepard (Nollet)	13,302	1850	Macintosh	1,090	1858	Macintosh	1,090	1858
Unsplit annular rings, Delfosse	1,889	1858	Gablenz and Mahler	466	1866	Godefroy	1,687	1858	Godefroy	1,687	1858
Without commutator, Johnson (Worms)	3,142	1860	Baker	1,718	1866	Bright	2,601	1858	Bright	2,601	1858
Globe, with syphon, Pearce	12,482	1840	Induction coil, Shepard (Nollet)	13,302	1850	Siemens	87	1859	Siemens	87	1859
Gramme ring, Gramme and D'Ivernois	1,668	1870	Harrison	588	1857	Clark and Muirhead	181	1859	Clark and Muirhead	181	1859
Graphite plastic, Pulvermacher	12,899	1849	Morris, Weare and Monckton	1,516	1862	Siemens	512	1859	Siemens	512	1859
Gum balata, Gray and Gibson	2,012	1868	Induction plates, Varley	2,525	1869	Engler and Krauss	2,135	1859	Engler and Krauss	2,135	1859
GOVERNOR OF CURRENT—			Induction, preventing, by amalgamation, Boggett	3,160	1865	Siemens	2,503	1859	Siemens	2,503	1859
Newton	13,123	1850	INSULATING MATERIAL OR COMPOUND—			Tomey	2,685	1859	Tomey	2,685	1859
Jackson	14,330	1852	See also "Dielectric."			Varley	206	1860	Varley	206	1860
Slater and Watson	212	1852	See also "Conductors, insulating."			Physick	704	1860	Physick	704	1860
Kaye and Openshaw	881	1853	Duncan	906	1853	Silver and Barwick	994	1860	Silver and Barwick	994	1860
Johnson (Koons)	404	1862	Gilpin	779	1854	Morris and Mapple	1,515	1860	Morris and Mapple	1,515	1860
Lake (Utley and Ross)	2,238	1871	Chatterton	352	1858	Jobson	1,531	1860	Jobson	1,531	1860
Heat, obtaining, from currents, Morris, Weare and Monckton	1,516	1862	Smith	1,811	1858	Reid	1,603	1860	Reid	1,603	1860
HELEX—			Macintosh	1,924	1858	Gisborne	1,918	1860	Gisborne	1,918	1860
Vergnes	2,145	1860	Wray	2,270	1858	Andrews	2,548	1860	Andrews	2,548	1860
Circular, Greenhough	13,613	1851	Hancock	2,394	1858	Jobson	2,862	1860	Jobson	2,862	1860
Compound, Carlier	947	1866	Warne, Fanshawe, Jacques and Galpin	716	1859	Arrieta	271	1861	Arrieta	271	1861
In a ring, Fontaine Moreau, page cxlix.	148	1855	Hooper	881	1859	Brooke	465	1861	Brooke	465	1861
Siemens	261	1867	McDougall	943	1859	Silver and Griffin	569	1861	Silver and Griffin	569	1861
Gramme and D'Ivernois	1,668	1870	Collyer	1,329	1860	Andrews	710	1861	Andrews	710	1861
Increasing power of, Vergnes	2,145	1860	Hooper	1,546	1860	Henley	734	1861	Henley	734	1861
Insulated with gutta-percha, Morris, Weare and Monckton	2,661	1861	Macintosh	1,560	1860	Roeber	1,406	1861	Roeber	1,406	1861
Machine for making, Shepard (Nollet)	13,302	1850	Godefroy	1,978	1860	Varley	1,484	1861	Varley	1,484	1861
Materials for insulating, Morris, Weare and Monckton	2,661	1861	Barnwell and Rollason	2,249	1860	Brooke	1,600	1861	Brooke	1,600	1861
Method of winding, Vergnes	2,145	1860	Monckton	2,772	1862	Varley	3,078	1861	Varley	3,078	1861
Of adjacent coils, Greenhough	13,613	1851	Guy	2,088	1865	Kilner	827	1862	Kilner	827	1862
Of graduated wire, Morris, Weare and Monckton	2,661	1861	De Briou	394	1866	Cliff	1,255	1862	Cliff	1,255	1862
Of square wire, Greenhough	13,613	1851	Lake	3,108	1867	Hands and Holland	2,488	1862	Hands and Holland	2,488	1862
Of varying sections, Vergnes	2,145	1860	Sintzenich	3,542	1867	Baguley and Greener	1,734	1862	Baguley and Greener	1,734	1862
On a disc, Darlow	311	1866	Perkins and Sandy	535	1868	Brooke	260	1863	Brooke	260	1863
Traversed by magnet, Greenhough	13,613	1851	Hooper	939	1868	Siemens	464	1863	Siemens	464	1863
With ring core, Greenhough	13,613	1851	Rogers	1,336	1868	Andrews	1,620	1863	Andrews	1,620	1863
Fontaine Moreau	148	1855	Walton	2,489	1868	Ghislin	1,072	1864	Ghislin	1,072	1864
With split tubular core, Johnson (Worms)	3,142	1860	Spill	3,984	1868	Crossley	2,536	1864	Crossley	2,536	1864
With wire of varying diameter, Greenhough	13,613	1861	Foucault	2,008	1869	Varley	619	1865	Varley	619	1865
Hemp, substitute for, Warren	537	1871	Spill	3,102	1869	Varley	1,376	1865	Varley	1,376	1865
INCANDESCENCE—			Monckton	3,147	1869	Prest, Harrison and Roeber	3,121	1865	Prest, Harrison and Roeber	3,121	1865
Watson and Slater	595	1852	Matthiessen	3,778	1869	Davies	1,226	1866	Davies	1,226	1866
Conductors in clamps, Konn	3,809	1872	Spill	1,626	1870	Jobson	1,343	1866	Jobson	1,343	1866
Conductor in nitrogen, Konn	3,809	1872	Wright	1,208	1871	Clark	3,038	1866	Clark	3,038	1866
			Day	1,364	1871	Adley	3,281	1866	Adley	3,281	1866
			Croskey	1,842	1871	Davies	632	1867	Davies	632	1867
			Parnacott	2,057	1871	Fuller	1,720	1867	Fuller	1,720	1867
			Davis and Struthers	2,256	1871	Andrews	2,016	1867	Andrews	2,016	1867
			Rolls	1,786	1872	Davies	2,192	1867	Davies	2,192	1867
			Lake	3,736	1872	Greener	2,707	1868	Greener	2,707	1868
			INSULATOR—			Siemens	3,501	1868	Siemens	3,501	1868
			Cooke	9,465	1842	Merrick	222	1869	Merrick	222	1869
			Poole	11,481	1846	Fitzgerald	501	1869	Fitzgerald	501	1869
			Petrie	11,926	1847	Lyttle	797	1869	Lyttle	797	1869
			Reid	11,974	1847	Lake	2,235	1869	Lake	2,235	1869
			Highton and Highton	12,039	1848	Lyttle	109	1872	Lyttle	109	1872
			Henley and Forster	12,236	1848	"	1,320	1872	"	1,320	1872
			For overhead wires, Ricardo	12,262	1848	Siemens	1,473	1872	Siemens	1,473	1872
			Clark and Mapple	13,336	1850	Jobson	1,961	1872	Jobson	1,961	1872
			Dering	13,427	1850	McEvoy	2,085	1872	McEvoy	2,085	1872
			Poole	28	1852	Henry	2,987	1872	Henry	2,987	1872
						Lyttle	3,206	1872	Lyttle	3,206	1872
						Thomas	3,462	1872	Thomas	3,462	1872
						Intensity coil, Staitte (partly a communication)	12,212	1848	Intensity coil, Staitte (partly a communication)	12,212	1848
						Iridium, fusing, Staitte and Petrie	12,772	1849	Iridium, fusing, Staitte and Petrie	12,772	1849
						Iron, testing by electricity, Knight	2,457	1954	Iron, testing by electricity, Knight	2,457	1954
						Junction boxes, Wilde	3,006	1863	Junction boxes, Wilde	3,006	1863
						Kamptulicon, Guy	2,088	1865	Kamptulicon, Guy	2,088	1865
						KEEPER—			KEEPER—		
						Oscillating, Siemens	512	1859	Oscillating, Siemens	512	1859
						Holmes	2,665	1868	Holmes	2,665	1868

	No.	Year		No.	Year		No.	Year
KEEPER, Rotating--			MOTOR, Electric, Magneto-			MOTOR, Electric, Magneto-		
Wheatstone ...	2,462	1860	electric and Electro-			electric and Electro-		
Martin and Varley ...	315	1868	magnetic--			magnetic--		
Wilder ...	691	1868	Wheatstone ...	9,022	1841	Actuating make and		
Varley ...	131	1871	De Moleyns ...	9,053	1841	break, Way ...	1,258	1857
" ...	1,150	1871	Hjorth ...	12,295	1848	Driven by two batteries,		
Lantern, Fanshawe ...	2,580	1862	Pulvermacher ...	12,899	1849	Vergnes ...	1,723	1856
Johnson ...	1,307	1867	Brown and Williams	12,991	1850	For alternating currents,		
Lantern, with escape			Greenhough ...	13,613	1851	Wheatstone ...	1,241	1858
valve, Staite ...	11,440	1846	Roberts ...	14,198	1852	For driving sewing ma-		
Lead carbonate, Foucault	2,008	1869	Mirand ...	750	1852	chine, Clark ...	3,326	1868
Chatterton and Smith	2,056	1860	Tortean ...	849	1852	For locomotive, Bellet		
Lead, oxide, Chatterton			Talbot ...	1,046	1852	and Rouvre ...	2,681	1864
and Smith ...	2,056	1860	Kingston ...	1,134	1852	In exhausted case, Bar-		
Hubert ...	2,605	1865	Gail ...	2,677	1853	clay ...	2,836	1858
Lenses, Bolton ...	1,398	1862	Harrison ...	1,714	1854	Reversing, Allan ...	2,243	1854
Morris, Weare and			Hjorth ...	2,199	1854	Reeves ...	2,303	1861
Monckton ...	1,516	1862	Harrison ...	2,243	1854	Potter ...	2,619	1862
Litharge, Foucault ...	2,018	1869	Johnson ...	2,708	1854	Newton ...	3,282	1865
Day ...	1,364	1871	Dering ...	2,759	1854	Wiles ...	576	1870
MAGNETS--			Fontaine Moreau ...	148	1855	Lake ...	2,439	1871
Mapple ...	2,345	1853	Allan ...	261	1855	Cunningham ...	2,702	1872
Monckton ...	1,322	1861	Hjorth ...	807	1855	Regulating, Fontaine		
Wilde ...	1,994	1861	" ...	808	1855	Moreau ...	148	1855
Annular, Siemens ...	261	1867	Grenet ...	2,043	1855	Lake ...	2,439	1871
Cast-iron, Morris, Weare			Vergnes ...	1,723	1856	Regulating magnet cir-		
and Monckton ...	2,661	1861	Cumine and Hunter	680	1857	cuit of, Thomson ...	252	1871
Circular, Siemens ...	261	1867	Way ...	1,258	1857	MORORS, with		
Wheatstone and Stroh	2,172	1871	Grenet and Vavin ...	2,297	1857	Annular armature, Pul-		
" ...	473	1872	Henry ...	393	1858	vermacher ...	12,899	1849
Concentric, Hjorth ...	2,199	1854	Wheatstone ...	1,241	1858	Annular keepers, Allan	261	1855
Electricity from, Barratt	9,786	1843	Bradshaw ...	1,385	1858	Annular Magnets, Hjorth	806	1855
Elliptical section, Daniell			Waller ...	2,363	1858	Chronometer, Thomson	252	1871
and Lund ...	1,364	1870	Johnson ...	2,670	1858	Concentric magnets,		
Faced with brass, Hjorth	2,199	1854	Barclay ...	2,636	1858	Pulvermacher ...	12,899	1849
Flexible, Seymour ...	288	1872	" ...	2,937	1858	Conically arranged ar-		
Darlow ...	888	1872	Hurry ...	1,039	1859	matures, Molin ...	2,158	1864
" ...	1,665	1872	Walenn ...	2,440	1859	Continuous current,		
" ...	3,221	1872	Reeves ...	2,587	1860	Hjorth ...	12,295	1848
Wetton ...	3,492	1872	Monckton ...	449	1861	Curved magnets, Berry,		
Plated, Monckton ...	1,322	1861	" ...	1,322	1861	(Williams, Davenport)	7,836	1837
Monckton ...	1,341	1861	" ...	1,341	1861	Wheatstone ...	1,241	1858
Pointed, Mapple ...	2,345	1853	Reeves ...	2,303	1861	Cycloidal motion, Wiles	576	1870
Restoring power of,			Johnson (Koosen)	404	1862	Cylindrical rotating ar-		
Thomson ...	3,069	1870	Smith ...	468	1862	mature, Pulvermacher	12,899	1849
Ring, Berry (Williams,			Guy ...	594	1862	Eccentric motion,		
Davenport) ...	7,386	1837	Roberts ...	776	1862	Wheatstone ...	9,022	1841
Darlow ...	311	1866	Johnson (Koosen)	2,305	1862	Galvanometer coils and		
Short circuiting, Lyttle	391	1869	Potter ...	2,619	1862	magnets, Petrie ...	8,937	1841
Steel wire, Varley ...	131	1871	Monckton ...	2,772	1862	Dering ...	2,759	1854
With cores of thin plates,			Ludeke ...	2,986	1862	Vergnes ...	1,723	1856
Tourteau ...	840	1852	Fenby ...	101	1863	Barclay ...	2,836	1858
With tapered poles,			Storer and Hancock	1,931	1863	Stroh ...	3,028	1869
Monckton ...	1,322	1861	Ludeke ...	2,413	1863	Galvanometer needle		
Magnetic cylinder, Gall ...	2,677	1853	Clark (Cuzat) ...	1,386	1864	and coiled ring, Stroh	3,028	1869
Magnetic impulse, Siem-			Tregaskis ...	2,047	1864	Grooved keeper, Hjorth	2,199	1854
ens ...	261	1867	Molin ...	2,154	1864	Grooved magnets, Hjorth	12,295	1848
Magnetic influence, zone			Bellet and Rouvre	2,681	1864	Hollow coils, Smith ...	468	1862
of, Greenhough ...	13,613	1851	Tregaskis ...	461	1865	Hollow magnets, Hjorth	2,199	1854
Magnetism, displacement			Siemens ...	1,239	1865	Long polar field, Hjorth	12,295	1848
of, Gramme & D'Ivernois	1,668	1870	Reade ...	3,261	1865	Magnetic piston, Hjorth	2,199	1854
Magnetism, residual, Henry	393	1858	Newton ...	3,282	1865	Radial currents, Roberts	14,198	1852
Martin, Varley and			Martin, Varley and			Ring armature, Reeves	449	1861
Martin ...	237	1866	" ...	237	1866	Rolling motion, Talbot	1,046	1852
Carlier ...	947	1866	Darlow ...	311	1866	Hjorth ...	2,199	1854
Siemens ...	261	1867	Baker ...	725	1866	Grenet and Vavin ...	2,297	1857
Clark ...	255	1872	Read ...	931	1866	Henry ...	393	1858
MAGNET, Permanent--			Carlier ...	947	1866	Guy ...	594	1862
Brown and Williams	12,991	1850	Johnson ...	1,521	1866	Molin ...	2,158	1864
Mapple ...	2,345	1853	Baker ...	1,718	1866	Wiles ...	1,576	1870
Coiled, Brett ...	12,054	1848	" ...	3,039	1866	Wheels rotating in Mer-		
Hjorth ...	2,198	1854	" ...	3,351	1866	cury, Roberts ...	14,198	1852
Monckton ...	1,503	1867	Newton ...	647	1868	Wound with ribbon,		
Thomson ...	3,069	1870	Clark ...	3,325	1868	Harrison ...	1,714	1854
Clark ...	255	1872	Newton ...	2,163	1869	Multiplier, Magnetic, Varley	3,394	1866
Making, Millward ...	13,536	1851	Jones ...	2,485	1869	Napthaline, Mackintosh ...	2,269	1859
Magnetising and harden-			Little ...	2,634	1869	Napthaline, Perkins and		
ing, Varley ...	1,318	1855	Stroh ...	3,028	1869	Tandy ...	535	1868
Johnson ...	2,670	1858	Burroughs ...	3,363	1869	Non-conducting varnish,		
Baker ...	3,039	1866	Newton ...	3,780	1869	Wright ...	1,268	1871
" ...	3,351	1866	Wiles ...	17	1870	Oils, drying, Parmacott	2,057	1871
Mains, Pinkus ...	8,644	1840	Daniel and Lund	1,576	1870	Okokerite, Matthiesson ...	3,778	1869
Make and break, Pearce ...	12,482	1849	Hunt ...	1,581	1870	Highton ...	1,279	1872
Meter, Jackson ...	14,330	1852	Thomson ...	3,069	1870	Palladium, Varley ...	2,525	1869
Lacassagne & Thiers	998	1855	" ...	252	1871	Paraffin, Marshall ...	3,192	1866
Pulvermacher ...	773	1868	Newton ...	1,361	1871	Parkesine, Parkes ...	2,733	1865
Mercury, contacts, Siemens	261	1867	Lake ...	2,238	1871	Patent dryers, Rogers	2,192	1858
Daniel and Lund ...	1,192	1870	" ...	2,429	1871	Rogers ...	2,753	1858
MOTOR, Electric, Magneto-			" ...	829	1872	Pine Tar, Storey ...	409	1870
electric and Electro-			Little ...	1,207	1872	Pipes, composition for		
magnetic--			Edison ...	1,453	1872	coating, Gedge ...	3,274	1869
Berry, (Williams,			Siemens ...	1,919	1872			
Davenport) ...	7,386	1837	Cunningham ...	2,702	1872			
Petrie ...	8,937	1841						

## CXC

	No.	Year		No.	Year		No.	Year
Polechanger, <i>see</i> "Commutators."			Rheostat, Stajite & Petrie	12,772	1849	Straightening machine,		
Polarised plates, Varley...	2,525	1860	Fontaine Moreau ...	148	1855	Siemens ...	519	1860
Poles, consequent, Wheat-			Ring of helices, Darlow ...	311	1866	Susu poko, Wray ...	2,394	1858
stone ...	9,022	1841	Ring of hoop iron, Slater	1,028	1872	SWITCH—		
POLE-PIECES—			Secondary battery, Varley	2,525	1860	Pearce ...	12,482	1849
King ...	11,188	1846	Henry ...	3,692	1872	Slater and Watson ...	212	1852
Henley ...	2,846	1853	Secondary coils, Baker ...	1,718	1866	Reade ...	931	1866
Hjorth ...	2,199	1854	Baker ...	3,039	1866	Lake ...	2,238	1871
Siemens ...	512	1859	SECONDAry CURRENTS—			Board, Holmes ...	1,744	1869
Baker ...	3,039	1866	Cutting off, Henley ...	2,846	1853	Centrifugal, Lake ...	2,238	1871
Varley ...	3,394	1866	Preventing, Hjorth ...	2,199	1854	Syphons, Wilde ...	3,006	1863
Mennons... ..	1,611	1867	Utilising, Pulvermacher	12,899	1849	Testing boxes, Reid and		
Varley ...	1,755	1867	Hjorth ...	2,198	1854	Brett... ..	14,166	1852
Holmes ...	2,307	1867	" ...	2,199	1854	Henley ...	185	1853
Martin and Varley ...	315	1868	Baker ...	726	1866	" ...	1,779	1853
Varley ...	131	1871	Semasphere, Silas ...	3,103	1860	Baudouin ...	2,710	1854
Lake... ..	2,238	1871	SHEATHING—			Transmission of power,		
Angular, Hjorth... ..	2,198	1854	Wires acting as conduc-			Walens ...	2,587	1860
Attached by electro-			tors, Barclay ...	56	1859	Monckton ...	2,772	1862
deposition, Varley ...	131	1871	Consolidating, Barclay	320	1859	Tree, milk, Wray ...	2,394	1858
Split, Holmes ...	2,060	1868	Elastic, Barclay ...	329	1859	Newbold... ..	912	1860
Potash-prussiate, Hubert	2,605	1865	Electro-negative, Clark,			Troughs, Nicoll ...	480	1866
Protective composition,			Braithwaite & Preece	1,965	1858	Vacuum tubes, Morris,		
Harrison ...	2,116	1860	Machines for, Siemens...	519	1860	Weare and Monckton...	1,516	1862
Pyroxyline, Barnwell and			Machines for, Grantham			Varnish, adhesive, Hancock	2,857	1859
Rollason ...	2,249	1860	Sinnock and Magners	1,164	1860	Vegetable fibres, preserv-		
Railway, electric, Bellet			Preserving, Clark, Braith-			ing, Varley... ..	2,683	1868
and Rouvre ...	2,681	1864	waite and Preece ...	1,965	1858	Vulcanising, Silver...	951	1859
REFLECTORS—			Preserving, Barclay ...	329	1859	Varley ...	206	1860
Pinkus ...	8,644	1840	Harrison ...	2,116	1860	Walton's oxidised oil,		
Krotkoff ...	1,626	1860	Silix, Johnson ( <i>Batchelder</i> )	122	1860	Lyttle ...	3,556	1868
Bolton ...	1,393	1862	Silver solder, Parkes ...	2,733	1865	Water decomposing,		
Morris, Weare and			Smelting metals, Johnson	700	1853	Bianchi ...	613	1852
Monckton ...	1,516	1862	SPARKING, Preventing—			Water-wheels, Monckton	2,772	1862
Johnson ...	1,308	1867	Petrie ...	8,937	1841	Windmills, Monckton ...	2,772	1862
Electrotyped, Pearce ...	12,482	1849	Roberts ...	14,198	1852	Wray's Mixture, Siemens	519	1860
Hyperboloid, Stajite ...	12,212	1848	Dering ...	1,088	1854	Xylonite, Phillips ...	627	1870
Reflex current, avoiding,			" ...	2,759	1854	Xyloidine, Whitehouse ...	3,224	1868
Newton ...	17	1870	Hjorth ...	807	1855	Spill ...	3,984	1868
Regulator, Slater and			Holmes ...	573	1856	" ...	3,162	1869
Watson ...	212	1852	Grenet and Vavin ...	2,297	1857	" ...	787	1870
Laccassagne and Thiers	998	1855	Henry ...	393	1858	Zinc oxide, Hooper ...	939	1868
Replenisher, Thomson ...	2,147	1867	Johnson ...	1,521	1866	Zinc paint, Storey... ..	409	1870
Thomson ...	252	1871	Baker ...	3,351	1866			
Reservoir, Barclay... ..	56	1858	Thomson ...	252	1871			
Varley ...	3,394	1866	Sparks, electric, Pinkus...	8,644	1840			
Resistances, Newton ...	1,765	1860	Spirals, Shepard ( <i>Nollet</i> )	13,302	1850			
Measuring, Siemens ...	261	1867	Stearic acid, Mackintosh	1,560	1860			