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New York Office

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Monsanto Chemicals Limited  
London, England

AROCLEAR PATENTS

MR. W. S. FOLEY

Attached please find lists of foreign patents pertaining to the manufacture of diphenyl, chlorination of diphenyl to form Aroclors and use of Aroclors in transformers.

Opposite each U.S. patent you will find a statement of the subject matter covered by the U.S. patent. The comment should be used as a guide rather than a definition as to what is covered in the foreign patents.

U.S. No. 1,894,283 (1/17/33) Lead Bath Cracker for Converting Benzol into Diphenyl. This is the process used by Monsanto.

|                                      |                                  |
|--------------------------------------|----------------------------------|
| Canada - No. 301,204 (6/17/30)       | Assigned to Swann Research, Inc. |
| Denmark - No. 43,290 (10/21/30)      | " " Federal Phosphorus Co.       |
| France - No. 667,840 (1/21/29)       | " " " " "                        |
| Germany - No. 531,005 (2/1/29)       | " " " " "                        |
| Great Britain - No. 312,902 (6/2/28) | " " " " "                        |
| Japan - No. 63,639 (6/5/29)          | Assigned " " " " "               |
| Mexico - No. 30,027 (6/2/28)         | " " " " "                        |

Patent of addition to above These patents stress the use of commercially available raw materials and are calculated to "mop up" whatever was overlooked in the above.

|                                      |                                    |
|--------------------------------------|------------------------------------|
| Denmark - No. 42,989 (9/4/29)        | Assigned to Federal Phosphorus Co. |
| France - No. 57,449 (9/30/29)        | " " " " "                          |
| Germany (allowed 5/16/33)            | " " " " "                          |
| Great Britain - No. 538,631 (9/5/29) | " " " " "                          |
| Italy - No. 286,637 (6/24/31)        | " " " " "                          |
| Japan - No. 86,454 (4/30/30)         | " " " " "                          |
| Netherlands - No. 26,359 (2/16/32)   | " " " " "                          |
| Norway - No. 48,515 (10/15/30)       | " " " " "                          |
| Sweden - No. 76,862 (9/16/29)        | " " " " "                          |
| Switzerland - No. 159,915 (9/16/29)  | " " " " "                          |
| Czechoslovakia - No. 55,639          | " " " " "                          |

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U.S. No. 1,892,397 (12/27/32) This patent covers quite specifically Monsanto's chlorination technique using iron as a catalyst.

France - No. 703,216 (9/16/30) Assigned to Federal Phosphorus Co.  
Great Britain - No. 358,703 (9/28/29) " " "  
Germany - Pending - Serial No. 1203 F.888.30 (9/2/30)

U.S. No. 1,892,398 (12/27/32) Arcolers containing chlorinating high boilers.

France - No. 702,593 (9/22/30) Assigned to Federal Phosphorus Co.  
Germany - Pending - Ser. No. 1203 F.893.30 (9/23/30)  
Great Britain - No. 358,704 (9/28/29) Assigned to Federal Phosphorus Co.

U.S. No. 1,856,180 (12/15/31) Use of Arcolers as Dielectrics

Canada - No. 329,300 (1/10/33) Assigned to Swann Research, Inc.  
France - No. 702,897 (9/24/30) Assigned to Federal Phosphorus Co.  
Great Britain - No. 370,020 (10/28/29) " " "  
Germany - Pending - Ser. No. 1203 F.1121.30 (9/25/30)  
(The German patent was opposed by the I.G. and thereupon rejected.)

U.S. No. 1,892,400 (12/27/32) This patent covers a distilled highly chlorinated Arcoler resin.

France - No. 715,074 (4/10/31) Assigned to Federal Phosphorus Co.  
Japan - No. 93,427 (8/8/31) " " "  
Great Britain - No. 378,849 (4/23/30) " " "  
Germany - Pending - Ser. No. F.70555 IV/a/1203 (3/30/31).

Taxes are being paid on most but not all of the above patents.

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