

# Patents Recently Issued to IBM Inventors

February and March 1968

## February 1968

|           |                                                                                                                     |                                                                                                                         |
|-----------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| 3,367,476 | Orienting and Contacting Device . . . . .                                                                           | J. Aronstein and G. A. Caccoma                                                                                          |
| 3,368,039 | Speech Analyzer for Speech Recognition System . . . . .                                                             | G. L. Clapper                                                                                                           |
| 3,368,203 | Checking System . . . . .                                                                                           | E. Loizides                                                                                                             |
| 3,368,207 | File Protection to I/O Storage . . . . .                                                                            | W. F. Beausoleil, W. A. Clark IV,<br>P. R. Hill and R. M. Smith                                                         |
| 3,369,075 | Transmission System for Direct Current Level Binary Data. . . . .                                                   | H. S. Yourke and E. J. Callahan                                                                                         |
| 3,369,076 | Formant Locating System . . . . .                                                                                   | R. Bakis                                                                                                                |
| 3,369,077 | Pitch Modification of Audio Waveforms. . . . .                                                                      | W. K. French and O. W. Johnson, Jr.                                                                                     |
| 3,369,109 | Communications Control System . . . . .                                                                             | R. A. Gregory and N. S. Stockdale                                                                                       |
| 3,369,129 | Current Limiter Employing Field Effect Devices. . . . .                                                             | A. J. Wolterman                                                                                                         |
| 3,369,132 | Opto-Electronic Semiconductor Devices . . . . .                                                                     | F. F. Fang, T. H. Yeh and H. N. Yu                                                                                      |
| 3,369,133 | Fast Responding Semiconductor Device Using Light as the Transporting<br>Medium . . . . .                            | R. F. Rutz                                                                                                              |
| 3,369,219 | Sampling System for Binary Indicators Having Plural Sampling Rates . . . . .                                        | P. P. Abramson, S. Bederman,<br>R. W. Bennett, P. H. Chin,<br>M. Krakinowski, G. R. Stilwell, Jr. and<br>A. H. Winchell |
| 3,369,224 | Cryogenic Thin Film Apparatus . . . . .                                                                             | R. H. Blumberg                                                                                                          |
| 3,369,989 | Cathode Sputtering Apparatus Including Precision Temperature Control of<br>Substrate . . . . .                      | E. Kay and A. P. Poenisch                                                                                               |
| 3,369,990 | Cathodic Sputtering Apparatus Including Thermionic Means for<br>Increasing Sputtering Efficiency. . . . .           | R. L. Hallen and R. M. Valletta                                                                                         |
| 3,369,991 | Apparatus for Cathode Sputtering Including a Shielded RF Electrode . . . . .                                        | P. D. Davidse and L. I. Maissel                                                                                         |
| 3,370,342 | Fluxless Soldering Process for Rare Earth Chalcogenides. . . . .                                                    | B. E. Argyle and R. W. Kaplan                                                                                           |
| 3,370,347 | Method of Making Superconductor Wires . . . . .                                                                     | R. L. Garwin, A. S. Nowick and<br>D. P. Seraphim                                                                        |
| 3,370,348 | Process for Preparing Arrays of Magnetic Circuit Elements. . . . .                                                  | J. M. Brownlow and K. R. Grebe                                                                                          |
| 3,370,916 | Magnetic Materials and Process of Preparation . . . . .                                                             | M. W. Shafer                                                                                                            |
| 3,370,924 | Method of Making Crystals of Rare Earth Chalcogenides . . . . .                                                     | C. F. Guerci and M. W. Shafer                                                                                           |
| 3,370,973 | Activation of Glass for Electroless Metal Deposition of Uniform Thick<br>Metal Films . . . . .                      | L. T. Romankiw                                                                                                          |
| 3,370,979 | Magnetic Films. . . . .                                                                                             | A. F. Schmeckenbecher                                                                                                   |
| 3,370,982 | Web Cleaning Apparatus and Method. . . . .                                                                          | C. P. Hayunga                                                                                                           |
| 3,371,041 | Process for Modifying Curie Temperature of Ferromagnetic Lanthanide<br>Chalcogen Solid Solution Compounds . . . . . | F. Holtzberg, T. R. McGuire and<br>S. Methfessel                                                                        |
| 3,371,042 | Ferromagnetic Materials. . . . .                                                                                    | T. R. McGuire and M. W. Shafer                                                                                          |
| 3,371,195 | Parallel Binary Adder Using Transmission Lines for Carry Handling . . . . .                                         | M. H. Bolt and H. H. Nick                                                                                               |
| 3,371,200 | Averaging and Differencing System . . . . .                                                                         | H. L. Funk                                                                                                              |
| 3,371,218 | Magnetic Switching Devices . . . . .                                                                                | L. A. Russell                                                                                                           |
| 3,371,225 | Clocking Pulse Rate Detection Circuitry . . . . .                                                                   | J. R. Featherston                                                                                                       |
| 3,371,321 | Tutorial System. . . . .                                                                                            | E. N. Adams                                                                                                             |
| 3,371,327 | Magnetic Chain Memory . . . . .                                                                                     | J. L. Anderson, H. G. Leilich and<br>D. H. Redfield                                                                     |
| 3,371,336 | Hermetically Sealed Coded Rotary Switch . . . . .                                                                   | R. W. Bennett, M. Krakinowski and<br>G. R. Stilwell, Jr.                                                                |

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| 3,371,780 | Apparatus for Mechanically and Electrically Testing the Quality of Bonded<br>Joints . . . . . | K. Clark                                                   |
| 3,371,882 | Toggle Latching Reel Cover with a Sliding Door . . . . .                                      | A. W. Orlando, R. R. Jacobsen,<br>S. W. Nutter and G. Popp |
| 3,372,037 | Magnetic Materials . . . . .                                                                  | R. S. McGrath and N. W. Silcox                             |
| 3,372,058 | Electrical Device, Method and Material . . . . .                                              | J. R. Boyd, A. H. Mones and<br>J. C. Schottmiller          |
| 3,372,268 | Pulse Generator . . . . .                                                                     | G. E. Hoernes                                              |

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| 3,372,269 | Multiplier for Simultaneously Generating Partial Products of Various Bits of the Multiplier . . . . . | <i>O. L. MacSorley and F. R. Bielawa</i>                              |
| 3,372,375 | Error Detection System . . . . .                                                                      | <i>D. J. Lem</i>                                                      |
| 3,372,378 | Input/Output Unit Switch . . . . .                                                                    | <i>E. W. Devore, R. J. Smith and J. M. Tyrrell</i>                    |
| 3,373,409 | Information Storage Unit and Memory Therefor . . . . .                                                | <i>P. A. Lord</i>                                                     |
| 3,373,413 | Pliable Magnetic Recording Disk with Direct Transducer Contact. . . . .                               | <i>R. C. Treseder</i>                                                 |
| 3,373,414 | Axially and Radially Air Bearing Support . . . . .                                                    | <i>D. L. Carter</i>                                                   |
| 3,374,110 | Conductive Element Composition and Method . . . . .                                                   | <i>L. F. Miller</i>                                                   |
| 3,374,111 | Method for Depositing Thin Dielectric Polymer Films. . . . .                                          | <i>A. E. Brennemann</i>                                               |
| 3,374,410 | Stepping Motor Positioning System Including Acceleration and Deceleration Control . . . . .           | <i>D. H. Cronquist and J. E. Shepard</i>                              |
| 3,374,461 | Physiological Monitoring System . . . . .                                                             | <i>F. R. Anderholm, D. J. Farris and L. J. Fiegel</i>                 |
| 3,374,466 | Data Processing System . . . . .                                                                      | <i>W. P. Hanf and K. K. Womack</i>                                    |
| 3,374,470 | Adaptive Threshold Circuits . . . . .                                                                 | <i>W. S. Rohland</i>                                                  |
| 3,374,471 | Instruction Fetching Apparatus. . . . .                                                               | <i>G. L. Smith</i>                                                    |
| 3,374,472 | Storage Cancellation and Panel Data Key Fetching in a Data Processing System . . . . .                | <i>W. P. Wissick, L. J. Hasbrouck, C. R. Holleran and G. L. Smith</i> |
| 3,375,457 | Data Acquisition Amplifiers . . . . .                                                                 | <i>C. P. Hollstein, Jr.</i>                                           |
| 3,375,503 | Magnetostatically Coupled Magnetic Thin Films Devices. . . . .                                        | <i>B. I. Bertelsen</i>                                                |
| 3,375,506 | Magnetic Drum Assembly with Air Bearings . . . . .                                                    | <i>L. Bruehl</i>                                                      |

**The following patents were issued during the period from January to March 1968 by the countries in which the inventions were made:**

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| 1,515,850 | Switching Matrix Control Device . . . . .                                                    | (Fr.)    | <i>A. C. Croisier</i>              |
| 1,516,275 | Improvements in Ciphering Devices . . . . .                                                  | (Fr.)    | <i>A. S. Senizergues</i>           |
| 1,517,048 | Analog Multiplier. . . . .                                                                   | (Fr.)    | <i>V. R. Riso</i>                  |
| 1,518,956 | Multifrequency Data Receiver . . . . .                                                       | (Fr.)    | <i>J. G. Garcia</i>                |
| 91,052    | Digital to Analog Converter . . . . .                                                        | (Fr.)    | <i>G. De la Haye</i>               |
| 1,523,380 | Fly's Eye Lens Combination . . . . .                                                         | (Fr.)    | <i>J. Q. Quenot</i>                |
| 1,224,073 | Arrangement for Photoelectric Scanning of Records Utilizing Spectral Counter Center. . . . . | (Germ.)  | <i>K. Ganzhorn</i>                 |
| 1,249,570 | Principle of Guiding Printing Wires in Wire Printers. . . . .                                | (Germ.)  | <i>M. Preisinger</i>               |
| MR00455   | Keyboard Printer/Input Output Typewriter/IBM Type 2152 . . . . .                             | (Germ.)  | <i>F. Wotzka and W. Seydel</i>     |
| 1,250,662 | Method and Device for Controlling an Element Printer . . . . .                               | (Germ.)  | <i>K. Tertel</i>                   |
| 1,253,550 | Method of Producing Protective Coatings for Semiconductors . . . . .                         | (Germ.)  | <i>M. Immendorfer and M. Zugel</i> |
| 1,979,667 | Magnetic Data Storage . . . . .                                                              | (Germ.)  | <i>F. Tsui</i>                     |
| 449,722   | Semiconductor Diode . . . . .                                                                | (Switz.) | <i>D. Seitzer</i>                  |
| 1,082,426 | Interlock Circuit . . . . .                                                                  | (U. K.)  | <i>D. M. Taub</i>                  |
| 1,085,528 | Mixed Radix Multiplier . . . . .                                                             | (U. K.)  | <i>C. E. Owen</i>                  |
| 1,085,862 | Temperature Sensitive Device. . . . .                                                        | (U. K.)  | <i>B. W. Kington</i>               |