

January through March 1963

# Recent IBM Patents

## January 1963

Information-Handling Apparatus and Method . . . . .	K. E. Schreiner . . . . .	3,071,738
Magnetic Memory . . . . .	E. W. Pugh . . . . .	3,071,756
Recording Transducer Mounting . . . . .	K. E. Haughton and J. O. Hildebrand . . . . .	3,071,773
Method of Fabricating an Array of Magnetic Cores . . . . .	P. V. Horton . . . . .	3,071,843
Analog-to-Digital Converter . . . . .	W. P. Margopoulos . . . . .	3,072,332
Semiconductor Body Formation . . . . .	R. L. Anderson, J. C. Marinace and G. A. Silvey . . . . .	3,072,507
Pattern Forming Method and Apparatus . . . . .	F. W. Olsen . . . . .	3,072,547
Moisture Set Magnetic Inks . . . . .	L. F. Miller and N. M. Callaghan, Jr. . . . .	3,072,577
Apparatus for Manifesting Intelligence on Record Media . . . . .	H. Charnetsky, Jr., and W. R. Maclay . . . . .	3,072,752
Radar Mapper . . . . .	M. J. Raffensperger . . . . .	3,072,818
Magnetic Multivibrator Amplifier Power Supply . . . . .	A. Hakimoglu . . . . .	3,072,837
Four Spin Flip Maser with Single Maser Action . . . . .	G. J. Lasher and P. P. Sorokin . . . . .	3,072,859
Detachable Connector . . . . .	P. W. Balles, Jr. . . . .	3,072,876
Apparatus for Analyzing Intelligence Manifestations . . . . .	E. C. Greanias and A. Hambrun . . . . .	3,072,886
Electron Spin Echo Storage System . . . . .	W. V. Smith and P. P. Sorokin . . . . .	3,072,890
Electrodeposition of Cobalt-Phosphorus Alloys . . . . .	H. Koretzky . . . . .	3,073,762
Percussion Welder . . . . .	H. K. Hazel . . . . .	3,073,946
Pulse Stretcher Utilizing Saturable Reactor with Series Inductor in Regenerative Feedback Circuit of Transistor . . . . .	R. K. Phillips . . . . .	3,073,967
Character Recognition Machine . . . . .	G. L. Shultz . . . . .	3,074,050
Container . . . . .	D. J. Lasher . . . . .	3,074,545
Pattern Recognition . . . . .	H. Gamo . . . . .	3,074,634
Gyrotor Apparatus and Method for Handling Information . . . . .	H. P. Wolff . . . . .	3,074,637
Full Adder and Subtractor Using NOR Logic . . . . .	G. A. Maley . . . . .	3,074,640
Pulse Generator Employing AND-INVERT Type Logical Blocks . . . . .	G. A. Maley . . . . .	3,075,089
Data Latching Systems . . . . .	M. E. Homan . . . . .	3,075,091
EXCLUSIVE OR Circuit Using NOR Logic . . . . .	W. W. Boyle . . . . .	3,075,093
Comparison Circuits . . . . .	A. C. Reynolds, Jr. . . . .	3,075,176
Unit Document Originating Machine . . . . .	A. E. Gray . . . . .	3,075,194
Multiple Bit Phase-Modulated Storage Loop . . . . .	B. L. Havens, P. L. Fleming and K. E. Schreiner . . . . .	3,076,180

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Mobile Record Carrier . . . . .	A. J. Butler and N. A. Hedstrom . . . . .	3,076,563
Transmission Gate Comprising Voltage Divider Floating Node Alternately Grounded and Isolated from Ground . . . . .	S. G. Francisco . . . . .	3,076,938
Method of Forming Memory Arrays . . . . .	J. M. Brownlow . . . . .	3,077,021
Contact Element Forming and Inserting Apparatus and Method Therefor . . . . .	A. H. Johnson . . . . .	3,077,023
Apparatus for Reproducing Images . . . . .	R. M. Schaffert . . . . .	3,077,150
Printing Device . . . . .	W. Hoffmann . . . . .	3,077,158
Wire Wrapping Tool . . . . .	K. A. Brooks . . . . .	3,077,211
Method of Lubricating . . . . .	W. C. Clinton, J. E. Brophy and T. C. Ku . . . . .	3,077,242
Preparation of Hard Magnetic Coatings of Nickel-Phosphorous Alloys . . . . .	H. Koretzky . . . . .	3,077,442
Operation Checking System for Data Storage and Processing Machines . . . . .	J. E. Greene, J. M. Terlato and B. M. Updike . . . . .	3,077,579
Data Processing System . . . . .	F. O. Underwood . . . . .	3,077,580
Magnetic Core Logical Device . . . . .	E. W. Bauer . . . . .	3,077,582
Magnetic Core Flux Steering Device . . . . .	L. A. Russell . . . . .	3,077,583
Magnetic Memory Technique . . . . .	A. H. Eschenfelder . . . . .	3,077,584
Shift Register . . . . .	S. A. Butler . . . . .	3,077,585
Magnetic Storage Device . . . . .	N. C. Ford, Jr. . . . .	3,077,586
Capacitor Matrix . . . . .	I. G. Akmenkalns and J. A. McDonnell . . . . .	3,077,591
Case Shift Interlock for Typewriter . . . . .	L. E. Palmer . . . . .	3,077,971
Fluid Bearing . . . . .	R. C. Durbeck and R. P. Auyang . . . . .	3,078,022

Error Checking System for a Parallel Adder . . . . .	S. F. Anderson . . . . .	3,078,039
Limiting Amplifier Employing Non-Saturating Transistors for Providing In-Phase Square Wave Output from Distorted Wave Input . . . . .	A. Brunschweiler . . . . .	3,078,377
Counter Employing Logic Gates in Feedback to Achieve Proper Counting Mode . . . . .	H. H. Nick . . . . .	3,078,417
Transfer Circuit Employing Magnetic Cores . . . . .	S. Francey and J. Albin . . . . .	3,078,446
Dual-Channel Sensing . . . . .	H. A. O'Brien . . . . .	3,078,448
Acceleration Measuring Means . . . . .	L. S. Jimerson, Jr., and R. A. Watson . . . . .	3,078,725
Incremental Drive Mechanism . . . . .	G. H. Schacht and L. A. Wilson . . . . .	3,078,732
Cryogenic Adder . . . . .	J. H. Griesmer and E. G. Wagner . . . . .	3,079,083
Readout Device . . . . .	B. Rabinovici . . . . .	3,079,508
Controlled, Regenerative Feedback Transmission Gate with Shunting Capacitor and Inhibiting Bias for Prompt Operation . . . . .	R. W. Averyt, S. Gardner and D. A. Harrison . . . . .	3,079,511
Semiconductor Devices Comprising an Esaki Diode and Conventional Diode in a Unitary Structure . . . . .	R. F. Rutz . . . . .	3,079,512
Decoding Device . . . . .	R. B. Johnson . . . . .	3,079,594
Byte Converter . . . . .	H. K. Wild . . . . .	3,079,597

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Serial Card Reader . . . . .	D. C. Croll . . . . .	3,080,113
Apparatus and Methods for Automatic Indexing and Storage . . . . .	H. M. Sierra . . . . .	3,081,447
Method and Apparatus for Obtaining and Maintaining Spacing of a Transducer . . . . .	H. A. Khoury . . . . .	3,081,682
Digital-to-Analog Control System . . . . .	W. R. Maclay . . . . .	3,081,942
Radiant Energy Responsive Semiconductor Device . . . . .	R. L. Anderson . . . . .	3,082,283
Interconnected Printed Circuit Boards . . . . .	R. Rice . . . . .	3,082,327
Decoding Device . . . . .	L. D. Stevens . . . . .	3,082,406
Persistent Current Storage Device . . . . .	R. L. Garwin . . . . .	3,082,408
Typewriter Input Checking Mechanism . . . . .	F. E. Becker, D. M. Bingham and R. J. Young . . . . .	3,082,854
Method of Producing Ferrite Bodies . . . . .	E. C. Leaycraft and G. H. Morris, Jr. . . . .	3,083,164
Negative Resistance Semiconductor Device . . . . .	R. F. Rutz . . . . .	3,083,302
Signal Storage and Transfer Apparatus . . . . .	G. A. Maley . . . . .	3,083,305