∞ Contents ∞

	Preface	iυ
Chapter One	Best Friends	3
Chapter Two	Codes and Combinations	9
Chapter Three	Braille and Binary Codes	15
Chapter Four	Anatomy of a Flashlight	22
Chapter Five	Seeing Around Corners	32
Chapter Six	Telegraphs and Relays	40
Chapter Seven	Our Ten Digits	47
Chapter Eight	Alternatives to Ten	54
Chapter Nine	Bit by Bit by Bit	69
Chapter Ten	Logic and Switches	86
Chapter Eleven	Gates (Not Bill)	102
Chapter Twelve	A Binary Adding Machine	131
Chapter Thirteen	But What About Subtraction?	143
Chapter Fourteen	Feedback and Flip-Flops	155
Chapter Fifteen	Bytes and Hex	180
Chapter Sixteen	An Assemblage of Memory	190
Chapter Seventeen	Automation	206
Chapter Eighteen	From Abaci to Chips	238
Chapter Nineteen	Two Classic Microprocessors	260
Chapter Twenty	ASCII and a Cast of Characters	286
Chapter Twenty-One	Get on the Bus	301
Chapter Twenty-Two	The Operating System	320
Chapter Twenty-Three	Fixed Point, Floating Point	335
Chapter Twenty-Four	Languages High and Low	349
Chapter Twenty-Five	The Graphical Revolution	364
	Acknowledgments	383
	Index	385