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# SCIENCE NEWS LETTER



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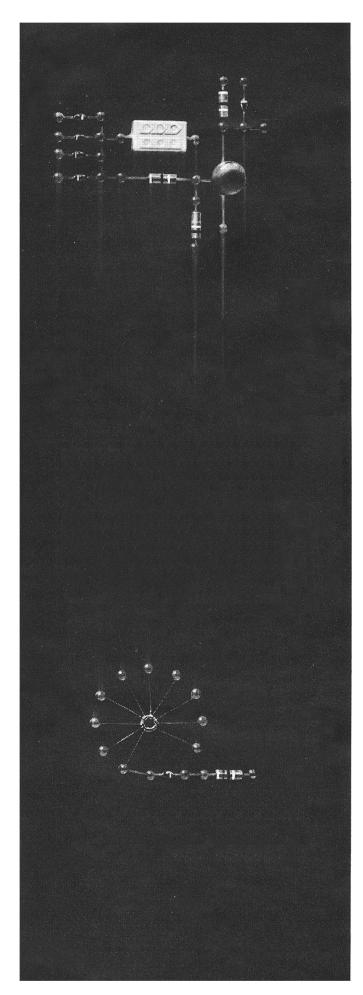
#### THE WEEKLY SUMMARY OF CURRENT SCIENCE



Westinghouse

First of the First
See Page 149

A SCIENCE SERVICE PUBLICATION



## a logic circuit that shrank from improvement

In an age of persistently expanding technological complexity, we've used a different approach to sophisticated electronics.

Simplicity.

Our simplified magnetic logic system uses a magnetic core to compare and store its information. It makes decisions, then responds.

We've told here before about fundamental studies of ferromagnetism itself, and about development of square loop ferrites. Now we've developed techniques, components, and circuitry for improved magnetic logic.

A ferrite memory core, a silicon diode, and a resistor combine into a logic module. Put modules together and you can build complete control circuits. Add to these the simple driver circuits we've engineered—to provide the needed input pulses—and the output stage to feed continuous control information to a machine.

True, all-semiconductor logic circuits can do this same job. And they can act much faster than magnetic circuits. But sometimes you don't need all that speed. This magnetic circuit will handle up to 50,000 information pulses per second. And it needs only one-half to one-fifth as many parts.

Its cost approaches that of a relay logic system. It has low impedance, too—10 ohms in the core circuit—providing a high immunity to electrical noise.

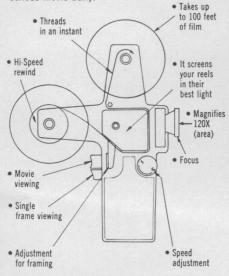
These systems aren't out of the laboratory yet. But we think they have a great future.



Warren, Michigan 48090



This hand-held, self-contained ARTRON "Cine-Viewer" is the missing link in 8mm movie equipment. It is the much-needed, long-awaited equivalent to the still photographer's "slide viewer". Great for previewing or reviewing - whenever, wherever you wish. And for editing (if you are a serious movie buff).



Think of the business applications! If demonstration and action sells your product or service, no salesman should be without this quick, dramatic, uninvolved presentation aid. Nothing to set up. Just press the trigger and watch!

Is \$19.70 too little? You may wonder why something involving gears, lenses, sprockets, wiring, motor (87 parts in all) doesn't cost a good \$30. Maybe \$40. The ARTRON is a product of Japan's booming optical industry (where it's inexpensive to make products expensively). And, there's no Sales Manager or salesman, distributor and retailer to pay when you buy direct from the exclusive importer — Haverhill's. The "disadvantage" of this advantage is that you can't inspect the ARTRON "CineViewer" before buying\*. That is why Haverhill's guarantees your satisfaction (no matter how hard you are to satisfy), or back comes your money. No reasons asked. Then there's also the manufacturer's guarantee that covers parts and workmanship.

#### FREE =

To introduce the ARTRON "CineViewer" to the United States in a big way, we will include a reel of beautiful color action film of the Tokyo Olympics. But write today. The supply of these Olympic movies is somewhat limited.

\* You can if you live near San Francisco where Haverhill's has just opened a new Merchandise Display Center in the Jackson Square District, 526 Washington Street. You're always welcome.

- ORDER	NOW,	THEN	"ROLL	'EM	INSTAN	TLY"-
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### **Questions**

AGRICULTURE—For what purpose will United States farmers grow more rice this year? p. 158.

ASTRONOMY-Where is the supernova, recently discovered by a Russian, located? p. 152.

BIOCHEMISTRY—What kind of cells are necessary for successful tissue transplants in animals? p. 147.

CHEMISTRY—Chemical parametric pumping offers what advantages to older principles for chemical separation? p. 151.

MEDICINE—What evidence suggests that cancer may be related to embryonic tissue? p. 153.

TECHNOLOGY—How is the new coaxial pump that powers lasers constructed? p. 154.

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