

HOLOGRAMS DATA IN 3-D

Computer-age science has developed a laboratory tool for memory-banking an immense amount of information and withdrawing it almost instantaneously.

The key to this storage-and-retrieval breakthrough is the hologram, which has the additional capability of producing photographic images in 3-D and color.

The hologram is made by exposing a photographic plate to two laser beams, hair-thin streams of pure, intense light. One beam illuminates the plate directly. The other illuminates the object, reflects from it, strikes the plate and interferes, "interferes" with the first wave. The interference pattern is permanently recorded throughout the thickness of the plate as a combination of lines, specks and swirls—a shorthand which can be selectively recalled by light as images of the original objects.

At Bell Telephone Laboratories, where holography is being investigated, a spokesman said that the hologram has "an enormous potential" as a memory device. A single tiny hologram plate can be divided into several thousand individual areas, each holding a "page" of instructions. Thus, millions of bits of information could be stored, for instance, into a compact electronic switching system for rapid, efficient telephone communication.

As a 3-D projector, holography's most striking feature is the image which it "floats" beyond the plate as the twin of the holographed object.

Bell Labs recently developed a hologram which allows an observer to see all the way around a three-dimensional image simply by moving his head from side to side while viewing the plate with a strong white light



M. C. King of Bell Telephone Laboratories aligns a pinhole aperture in the path of a laser beam used to illuminate a new kind of hologram. The three-dimensional image rotates through a full circle as the viewer moves his head from left to right in front of the flat hologram. Conventional flat holograms show only one aspect of the image.

This development could make illustrations leap from textbook pages in 3-D. For example, physics or biology texts could present a "floating" three-dimensional view of models of complex molecules or organisms. Or art books could show sculpture in the round—to all appearances, as solid as the Venus de Milo.

Holography also is being used in fracture mechanics—the science of determining when and where metal will crack under stress. When a metal sample is subjected to stress while being viewed through its own superimposed holographic image, visible interference patterns are set up at stress points. It is thus possible to detect the weak spots long before actual cracking occurs.

Herald Legal Advertising

EXECUTOR'S NOTICE
In the General Court of Justice

Superior Court Division
Having qualified as Executrix of the estate of Lawrence M. Dowd, late of Chowan County, North Carolina, this is to notify all persons holding claims against the estate of said deceased to present them to the undersigned on or before the 25th day of March, 1970, or this notice will be pleaded in bar of any recovery thereon. All persons indebted to said estate will please make immediate payment.

This 18th day of September, 1969.
JEANETTE H. DOWD,
Executrix of the Estate of Lawrence M. Dowd, Deceased,
Merrill Evans, Jr.,
Attorney at Law,
P. O. Box 74,
Edenton, N. C. 27932
exp Oct 16

Administrator's Notice
In the General Court of Justice

Superior Court Division
Having qualified as Administratrix of the estate of Louis H. Craddock, late of Chowan County, North Carolina, this is to notify all persons holding claims against the estate of said deceased to present them to the undersigned on or before the 28th day of March, 1970, or this notice will be pleaded in bar of any recovery thereon. All persons indebted to said estate will please make immediate payment.

This 18th day of September, 1969.
SARAH L. CRADDOCK,
Administratrix of the Estate of Louis H. Craddock, Deceased.
exp Oct 16c

Administrator's Notice
In the General Court of Justice

Superior Court Division
Having qualified as Administratrix of the estate of John C. Cobb, late of Chowan County, North Carolina, this is to notify all persons holding claims against the estate of said deceased to present them to the undersigned on or before the 26th day of March, 1970, or this notice will be pleaded in bar of any recovery thereon. All persons indebted to said estate will please make immediate payment.

This 18th day of September, 1969.

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persons indebted to said estate will please make immediate payment.

This 17th day of September, 1969.
MATTIE B. COBB,
Administratrix of the Estate of John C. Cobb, Deceased,
exp Oct 16p

Administrator's Notice
In the General Court of Justice

Superior Court Division
Before the Clerk
Having qualified as Administratrix of the estate of Ernest J. Hudson, late of Chowan County, North Carolina, this is to notify all persons holding claims against the estate of said deceased to present them to the undersigned on or before the 11th day of March, 1970, or this notice will be pleaded in bar of any recovery thereon. All persons indebted to said estate will please make immediate payment.

This 27th day of August, 1969.
NORA D. HUDSON,
Administratrix of the Estate of Ernest J. Hudson, Deceased,
Merrill Evans, Jr.,
Attorney at Law,
P. O. Box 74,
Edenton, N. C. 27932
Sept 11 18 25 Oct 2

Notice of Service of Process By Publication
In The District Court State of North Carolina, Chowan County.

Judy Welch Rankins, Plaintiff
vs.
Willie Ray Rankins, Defendant
To Willie Ray Rankins:
Take notice that a plead-

ing seeking relief against you has been filed in the above entitled action.

The nature of the relief being sought is as follows: An action for absolute divorce on the ground of one year separation next preceding commencement of this action.

You are required to make defense to such pleading not later than the 13th day of November, 1969, and upon your failure to do so the party seeking service against you will apply to the court for the relief sought.

This 22nd day of September, 1969.
LENA M. LEARY,
Clerk of Superior Court,
Chowan County.
Exp Oct 16

NOTICE OF SALE
North Carolina, Chowan County.

Under and by virtue of authority conferred by that certain deed of trust, the power of sale contained therein having become absolute, executed by Durward O. Travis and wife, Pauline Simmons Travis, to the undersigned Trustee, dated July 22, 1963, and duly recorded in the office of the Register of Deeds of Chowan County, North Carolina, in Book of Real Estate Mortgages No. 81 at pages 107-108, the undersigned Trustee will, on Tuesday, October 28, 1969, at 1:00 o'clock P. M. before the Court House door in Edenton, N. C., offer for sale to the highest bidder for cash the following described real estate lying and being in the Town of Edenton, State and County

aforsaid, bounded and described as follows:

That certain lot or parcel of land, together with all buildings and improvements thereon, numbered and designated as Lot No. 3 of the subdivision of the Morris property as per plat thereof duly of record in the office of the Register of Deeds of Chowan County, North Carolina, in Plat Book No. 1, page 20, and being the same property conveyed to the said Durward O. Travis and wife, Pauline Simmons Travis, by John L. Forehand, Jr., and wife by deed dated May 15, 1948, and duly recorded in the aforementioned office in Deed Book 7, page 291, said plat and deed and those instruments mentioned therein being hereby referred to and made part hereof for further description and chain of title.

Sale will be made sub-

ject to all conditions, restrictions, covenants and reservations of record affecting the above described property.

Ten (10%) per cent of the first \$1,000.00 and five (5%) per cent of the balance of purchase price will be required of the successful bidder at time of sale.

Dated and posted this September 26, 1969.
W. S. PRIVOTT,
exp Oct 23 Trustee.

Administratrix Notice

Having qualified as Administratrix of the estate of Glenn E. Bunch, late of Chowan County, North Carolina, this is to notify all persons holding claims against the estate of said deceased to present them to the undersigned on or before the 2nd day of April, 1970, or this notice will be pleaded in bar of any recovery thereon. All persons indebted to said

estate will please make immediate payment.

This 2nd day of October, 1969.
EDNA K. BUNCH,
Administratrix of the Estate of Glenn E. Bunch, Deceased.
Exp Oct 23c

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