Pupil's Model Bewilders the Best

Poor George! His Laser Lases, but . . .

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A 14-year-old Louisvillian has built a device in his home workshop that 10 years ago the nation's top scientists were unable to produce—but he's got a problem.

The device, a laser, works perfectly. The trouble is that the teen-age scientist, George Stege III, can't find anyone to discuss it with. It seems that no one, including some of his science teachers, understands how it works.

The boy's mother, Mrs. George Stege, of 2429 Newburg Road, explained the situation.

"George has always wanted a playmate, one who understands electronics, that he can work with and discuss his experiments with," she said. "But the only person he's found to even talk with is a U of L physicist."

Lauds Student's 'Persistence'

The physicist, Dr. J. A. Gwinn, said that although several other Louisville-area students have attempted to build a laser, George is the only one to his knowledge who has a working model.

"He certainly should be commended for his persistence, if nothing else," Dr. Gwinn said. "Actually, it's an extraordinary feat. Lasers are extremely sensitive, and so much as a fingerprint out of place will keep them from working properly."

Mrs. Stege said her son and her husband, a medical doctor, have always been science buffs. She says a rocket fuel they mixed up several years ago caused a $27,000 fire at their home.

Scientists have been working on lasers (pronounced LAY'sers) for about a dozen years, but the first device to lase smoothly wasn't developed until 1960.

Glows Like Neon Sign

The laser has been acclaimed for such feats as drilling holes in diamonds, transmitting television images and performing delicate surgery.

George's model has a long glass tube mounted on a low wooden frame. The tube glows like a pink and white neon sign and is surrounded by an assortment of mirrors, lenses and electronic equipment.

George's device has no real practical use as it stands. It simply casts a small red glow about the size of a half-dollar.

The laser light, however, is not the usual type of light. It is highly concentrated, or "coherent" in scientific terms. It is a single frequency and casts an extremely narrow beam.

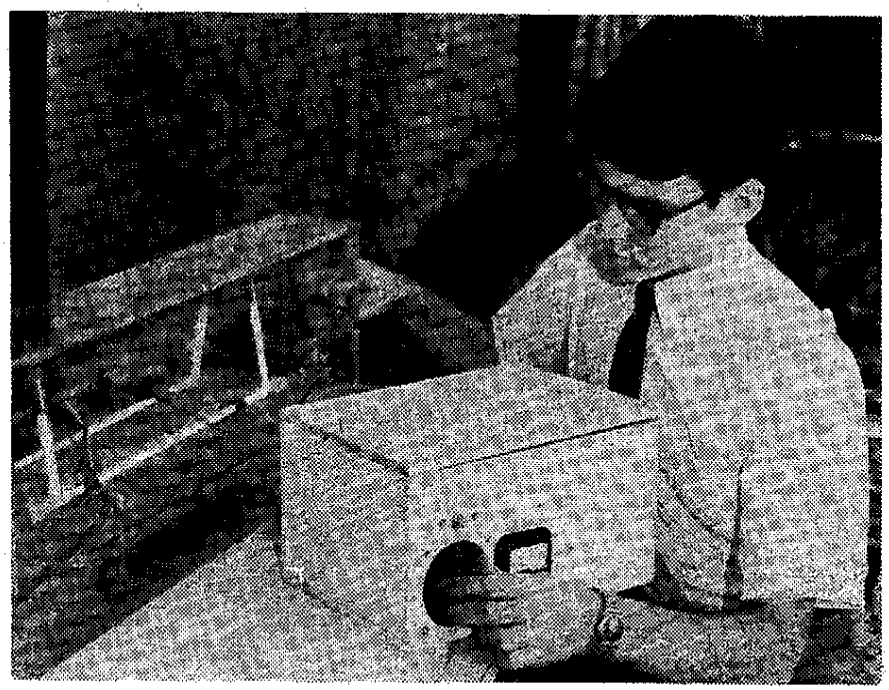
George says he intends to use his laser to create three-dimensional photography, and perhaps he'll experiment with further uses.

The high school freshman started work on his laser during Easter vacation last spring and has worked on various models of it ever since.

He designed the device from plans he assembled from dozens of articles in scientific journals. At first he consulted with his teachers at Louisville Country Day School. However, he soon outdistanced their expertise and had to take his problems to Dr. Gwinn.

Special glass tubing had to be blown, glass plates cut, mirrors found, a power plant built and everything assembled in highly intricate fashion. George had almost given up on the project about a month ago when it started to "lase" as he was adjusting a mirror.

Now he plans to modify it slightly and enter it in science fair competition next spring.



Staff Photo

TEEN-AGE PHYSICIST George Stege III, 14, demonstrates the laser he built in his home workshop. Until a few years ago the nation's top scientists were unable to build this device, but now a half-dozen Louisville teen-agers are working on them. George's, however, is the first one to work successfully.