

# THE GALESKI PROSTHESIS

*By Michael Hughes  
Vienna, Virginia, USA*

*Abstract: For those of you who may not be familiar, Ocularists are sometimes referred to as the fourth "O" in eye care. These craftsman/artists custom make Ocular Prostheses (artificial eyes) for those patients in need. While most artificial eyes (in the US and UK) are made of plastic, there was a definite evolution from the glass eye to the plastic that is most common today. There have been many individuals and institutions who have made significant contributions in this change. One such person was Joseph Galeski. Joseph Galeski and Galeski Laboratories of Richmond, Virginia, was a pioneer in the production of early, all-acrylic, compression-moulded ocular prosthesis. During the height of its business in the 1950s Galeski Laboratories produced over 700 stock eyes each month. Galeski Laboratories also fashioned several types of ocular implants, conformers and supplies for the anaphthalmic patient. The Galeski prosthesis was a unique stepping-stone in the evolution of the modern day (impression-fitted) ocular prosthesis.*

In the United States, there have been several individuals and a few companies that have manufactured and dispensed stock (or premade) artificial eyes, including American Optical, Denver Optical, and Mager and Gougelman. Nevertheless, Joseph Galeski Laboratories of Richmond, Virginia, were among the first to produce plastic stock eyes. It is because he was one of the true, obscure pioneers and because of the originality of his technique that I wish to elaborate on him.

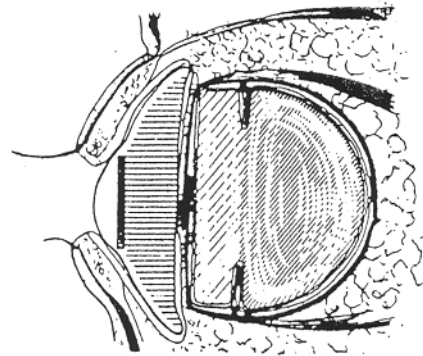
Salo Galeski was a German immigrant who originally peddled eyeglasses, using a pushcart, on the Atlantic City boardwalks. He founded The S. Galeski optical Company of Richmond in 1885 and become one of the first true lens grinders in the South. Salo's son, Joseph Galeski (1886-1963), was born in Philadelphia. He grew up in Richmond and attended the University of Richmond. Joseph later graduated from the Pennsylvania Optical College, now known as Pennsylvania College of Optometry, in Philadelphia. He was licensed as an optometrist.

After his education, Joseph Galeski practiced as an optometrist along with his father in Richmond. Wanting to provide a full range of services for his patients, he fitted stock glass ocular prostheses. German glass blowers, Fried and Kohler of New York City, also provided custom glass eyes every other month for Galeski.

Under Joseph Galeski's leadership, the optical business thrived and expanded. Galeski Optical opened several offices in Virginia and North Carolina. With this expansion came a greater demand for his artificial eye services. Galeski Optical was a growing company.

World War II limited Galeski's (and the United States) supply of quality German glass. Looking to find a substitute, Joseph Galeski started to experiment with plastics and shape designs. Eventually, he developed a technique of compressing plexiglass into artificial eyes in 1943. One of the most significant aspects of this was that the acrylics used (Dupont and Rhom Haas) came in the form of small chunks, and would cure under heat and pressure – which was free of any monomer residue. His unique technique was awarded several U.S. and Canadian patents.

With the help of his son Edward and Bob French, an optician and glass eye fitter, Joseph Galeski put his plastic eyes into production in Richmond in 1946. Shortly afterwards, Clyde Andrews, and later, Langdon Henderlite, contributed in the production and evolution of the "Galeski Eye".



*Galeski collaborated with Richmond ophthalmologist, Dr. Luther C. Brawner with this motility implant shown with prosthesis.*

One of Galeski's first tasks was to standardize sizes, shapes and colors so that one could write out a prescription for an artificial eye. The philosophy of the prescription came from his experience in fitting glass eyes and the technique of fitting glasses, where an examination is made, measurements are taken, and a prescription is filled out. The home office in Richmond would then fashion in prosthesis, based on the specifics of the prescription.

A fitting set was developed, using some of the common shapes. The set consisted of 50 eyes, all in various colors. The "fitter" would try various sizes until he found one that complemented the "good" eye. The fitter would then pick the desired color(s), measure such variables as the iris size,

# THE Galeski Lab-Letter

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## THANK YOU!

The first issue of the Lab-Letter was apparently welcomed by those who received it, judging from comments. Several acknowledged it's receipt, we received a number of requests for printed matter, and one of our patrons wrote that since there was so little published on prostheses and fitting, he will always read this sheet with interest.

We thank you. We will do our best on future issues, we will be brief so as to not take up too much of your time, we will space the mailings far enough apart so that no one can say there's too much of it.

If any of our readers have any ideas that should be in a Lab-Letter, we will welcome their suggestions.

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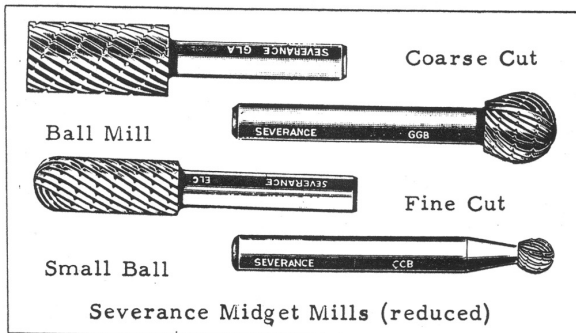
## ON ALTERATIONS:

Frequent inquiries on this subject prompt us to express our conclusions based on experience.

The lathe or grinder should be the bench type, which leaves both hands free for holding the eye. The most desirable motor-grinder is a two-speed type, about 1/4 H.P., 1750 and 3500 R.P.M., equipped with a 1/4" Jacob's Chuck and a tapered threaded spindle. Such a motor is also useful in an optical shop for frame polishing.

A small continuous-current grinder such as the "Dumore", on a bench stand with a foot rheostat for speed control, also will answer the purpose.

When altering an eye the plastic should be cut off with a Midget Mill, rather than ground off with a stone. Stones frequently burn, and their use is not recommended.



We use and distribute Severance Midget Mills. The four types regularly used are illustrated.

## The BRAWNER G-L INCLUSION IMPLANT



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We believe that the use of a Brawner G-L Implant assists the ophthalmic surgeon to a most desirable enucleation operation.

Properly "anchored", the tissues of Tenon's capsule grow to the doubled tantalum gauze on the posterior portion of the implant. Any surgeon that has had to remove an implant covered in part with tantalum gauze knows that this tissue adhesion is not theoretical, but positive and actual. Later implant migration is hardly possible.

Muscle isolation is not necessary, as the attachment of the rectus muscles to Tenon's capsule at the approximate equator gives the implant motility. This motility can be transmitted to the prosthesis by use of a "matching-back" eye.

The operation is not complicated, post-operative hospital time is shortened, and the possibility of post-operative complications is reduced to a minimum.

The patient can decide on the prosthesis. He can wear a conventional reform plastic eye, stock or custom. Should he prefer it, he can have made and fitted a "matching-back", which will give his prosthesis adequate motility.

Note: Above has been approved by Dr. Brawner.

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## TOLERANCES:

On blueprints for parts of precision machines, such as aviation motors, tolerances are almost invariably specified. These tolerances are plus or minus, rarely both, and while frequently minute, they are considered necessary.

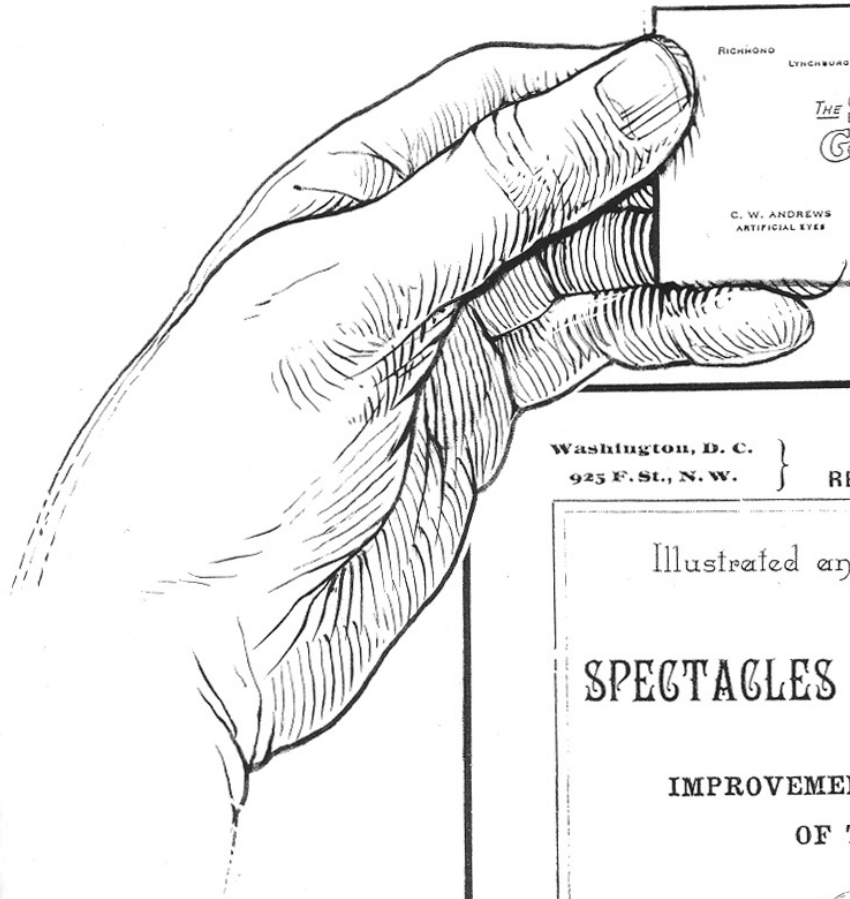
Specified tolerances are most useful in filling artificial eye orders. To cite an example:

A color sample may accompany the order. It may be good, but only the fitter knows if the blue-gray eye sent might be a bit grayer. The scleral shade looks O.K, but it could be tolerance darker (or lighter). The iris size appears about right, but it could be tolerance larger (or smaller).

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**Galeski Laboratory, Inc.--737 East Main Street--Richmond, Virginia**

*Galeski collaborated with Richmond ophthalmologist, Dr. Luther C. Brawner with this motility implant shown with prosthesis.*

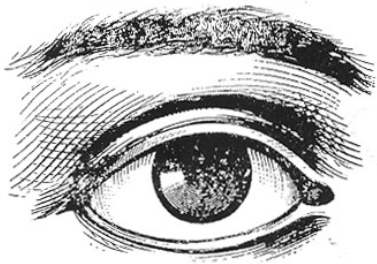


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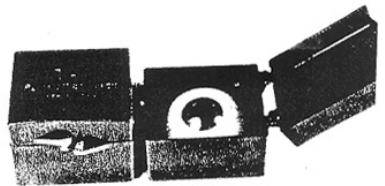
**DR. S. GALESKI, Consulting Optician,**

**RICHMOND, VA.**

Office, 915 East Main Street.

Factory, 8 South Tenth Street.

WILLIAMS, DR., RICHMOND



While spectacles and eyeglasses were the primary business, the prosthetic eye division of Galeski Optical always held a special interest for Joseph Galeski at his various offices.

Aug. 7, 1951

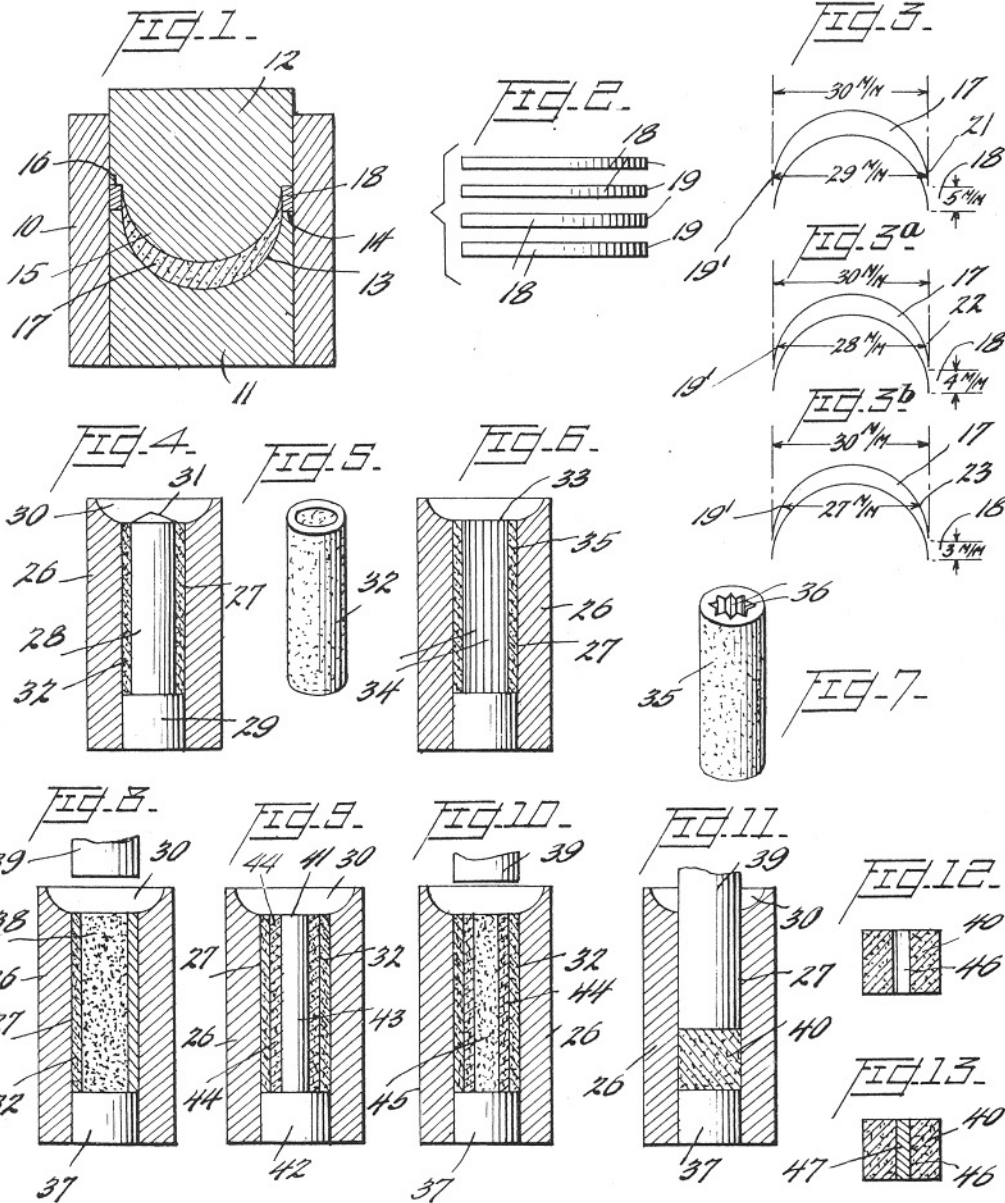
J. S. GALESKI

2,563,462

ARTIFICIAL EYE AND METHOD OF FORMING THE SAME

Filed June 25, 1946

3 Sheets-Sheet 1



Inventor

Joseph S. Galeski,

By *Leushman DueBy Leushman*

Attorney

iris position, etc., and fill out a prescription. Opticians and optometrists were the primary customers for these fitting sets. A few glass eyemakers also purchased these versatile sets.

## **OTHER SERVICES**

Galeski Laboratories also tinkered with ocular implants, including simple acrylic spheres and the more complex Brawner (inclusion) implant. Working with Dr. Luther C. Brawner, a Richmond ophthalmologist, Galeski fabricated with Brawner (inclusion) implant (see illustration). This well-received implant, developed in 1951, was made of acrylic plastic, covered with tantalum gauze. This was one of the first inclusion motility implants developed during the post – World War II years.

Cosmetic optics (for prosthetic eye wearers) was another venture Galeski Optical easily utilized. Because of the large inventory of lenses and frames, protective eyewear was always encouraged. Prisms and other speciality lenses were frequently used to enhance each prosthesis, depending on the particular obstacle.

The optical business always was the primary focus (and moneymaker) of Galeski Optical. The ocular prosthesis division, however, always held a special place to Joseph Galeski. Unfortunately, Galeski's special interest could not withstand the changes that occurred for the prosthetic eye wearer. Galeski's stock eye business ceased in 1973, 10 years after Joseph Galeski's death. Galeski Optical concentrated strictly on custom work until 1980, when the entire prosthetic eye business was sold.

While I am a firm believer that custom, impression-fitted prostheses are the superior way to fabricate artificial eyes, I do believe that the plastic "stock", along with its predecessor, the glass eye, had a definite place in history. Because of the limited number of techniques available to custom-make eyes (especially in the smaller communities) and the fact that travel was not as easy as it is today, the stock (or premade) eye did have value. Besides the obvious, I think the true value of stock prostheses was that they filled a void and pushed the younger generations of ophthalmologists to experiment and find a better technique in fitting ocular prostheses.

Special thanks to Clyde Andrews, Joe Galeski, Jr., and Langdon Henderlite for their assistance with the accuracy of this article.