

tification Act do forthwith cease and desist from furnishing a false guaranty that any textile fiber product is not misbranded or falsely and deceptively invoiced.

It is further ordered, That the respondents herein shall, within sixty (60) days after service upon them of this order, file with the Commission a report in writing setting forth in detail the manner and form in which they have complied with this order.

IN THE MATTER OF

JACOB WEINSTEIN ET AL. TRADING AS A. WEINSTEIN
& SON CO.

CONSENT ORDER, ETC., IN REGARD TO THE ALLEGED VIOLATION OF THE
FEDERAL TRADE COMMISSION ACT

Docket C—831. Complaint, Sept. 11, 1964—Decision, Sept. 11, 1964

Consent order requiring Worcester, Mass., manufacturers of garnetted fiber products to cease misrepresenting the fiber content of certain of their products by making such statements on invoices and shipping memoranda as "100% Wool" when the product so described contained substantially different fibers and amounts of fibers than represented.

COMPLAINT

Pursuant to the provisions of the Federal Trade Commission Act and by virtue of the authority vested in it by said Act, the Federal Trade Commission, having reason to believe that Jacob Weinstein and Rose Weinstein, individually and as copartners trading as A. Weinstein & Son Co., hereinafter referred to as respondents, have violated the provisions of the said Act and it appearing to the Commission that a proceeding by it in respect thereof would be in the public interest, hereby issues its complaint stating its charges in that respect as follows:

PARAGRAPH 1. Respondents Jacob Weinstein and Rose Weinstein are individuals and copartners trading as A. Weinstein & Son Co. They formulate, direct and control the acts, policies and practices of the partnership including the acts and practices hereinafter referred to.

Respondents are manufacturers of garnetted fiber products with their office and principal place of business located at 80 Austin Street, Worcester, Massachusetts.

PAR. 2. Respondents in the course and conduct of their business, as

aforesaid, have made statements on invoices and shipping memoranda to their customers misrepresenting the fiber content of certain of their said products.

Among such misrepresentations, but not limited thereto, were statements representing the fiber content thereof as "100% Wool" whereas in truth and fact the product contained substantially different fibers and amounts of fibers than represented.

PAR. 3. In the course and conduct of their business, respondents now cause and for some time last past, have caused their said products, when sold, to be shipped from their place of business in the Commonwealth of Massachusetts to purchasers located in various other States of the United States and maintain, and at all times mentioned herein, have maintained a substantial course of trade in said products in commerce, as "commerce" is defined in the Federal Trade Commission Act.

PAR. 4. The acts and practices set out in Paragraph Two have had and now have the tendency and capacity to mislead and deceive the purchasers of said products as to the true content thereof and were and are all to the prejudice and injury of the public and constituted, and now constitute unfair and deceptive acts and practices in commerce within the intent and meaning of the Federal Trade Commission Act.

DECISION AND ORDER

The Commission having heretofore determined to issue its complaint charging the respondents named in the caption hereof with violation of the Federal Trade Commission Act, and the respondents having been served with notice of said determination and with a copy of the complaint the Commission intended to issue, together with a proposed form of order: and

The respondents and counsel for the Commission having thereafter executed an agreement containing a consent order, an admission by respondents of all the jurisdictional facts set forth in the complaint to issue herein, a statement that the signing of said agreement is for settlement purposes only and does not constitute an admission by respondents that the law has been violated as set forth in such complaint, and waivers and provisions as required by the Commission's rules: and

The Commission, having considered the agreement, hereby accepts same, issues its complaint in the form contemplated by said agreement, makes the following jurisdictional findings, and enters the following order:

1. Respondents Jacob Weinstein and Rose Weinstein are individuals

and copartners trading as A. Weinstein & Son Co., with their office and principal place of business located at 80 Austin Street, in the city of Worcester, State of Massachusetts.

2. The Federal Trade Commission has jurisdiction of the subject matter of this proceeding and of the respondents, and the proceeding is in the public interest.

ORDER

It is ordered, That respondents Jacob Weinstein and Rose Weinstein, individually and as copartners trading as A. Weinstein & Son Co., or under any other trade name, and respondents' representatives, agents and employees directly or through any corporate or other device, in connection with the offering for sale, sale or distribution of garnetted fibers or any other textile products in commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from misrepresenting the character or amount of constituent fibers contained in garnetted fiber products or any other textile products on invoices or shipping memoranda applicable thereto or in any other manner.

It is further ordered, That the respondents herein shall, within sixty (60) days after service upon them of this order, file with the Commission a report in writing setting forth in detail the manner and form in which they have complied with this order.

IN THE MATTER OF
VISLO CORPORATION ET AL.

ORDER, ETC., IN REGARD TO THE ALLEGED VIOLATION OF THE FEDERAL TRADE
COMMISSION ACT

Docket 8570. Complaint, May 15, 1963—Decision, Sept. 15, 1964

Order requiring a Great Neck, N.Y., distributor of tinted glasses under the name of "Rayex Night Glasses" to dealers and distributors for resale to retailers, to cease representing falsely in newspaper, magazine and other advertising that wearing said glasses would eliminate glare from the eyes of the wearer, enable him to see in the dark and through fog glare, improve his night driving vision and allow all the light to reach his eye.

COMPLAINT*

Pursuant to the provisions of the Federal Trade Commission Act, and by virtue of the authority vested in it by said Act, the Federal

*Reported as amended by Hearing Examiner's order dated Oct. 15, 1963.

Trade Commission, having reason to believe that Vislo Corporation, a corporation, and Eugene A. Griffin, individually and as an officer of said corporation, hereinafter referred to as respondents, have violated the provisions of said Act, and it appearing to the Commission that a proceeding by it in respect thereof would be in the public interest, hereby issues its complaint stating its charges in that respect as follows:

PARAGRAPH 1. Respondent Vislo Corporation is a corporation organized, existing and doing business under and by virtue of the laws of the State of New York, with its principal office and place of business located in the Vislo Building, in the city of Great Neck, State of New York.

Respondent Eugene A. Griffin is the sole officer of the corporate respondent. He formulates, directs and controls the acts and practices of the corporate respondent, including the acts and practices hereinafter set forth. His address is the same as that of the corporate respondent.

PAR. 2. Respondents are now, and have been for more than one year last past, engaged in the offering for sale, sale and distribution of tinted glasses to dealers and distributors who resell to retailers who sell to the purchasing public. Said tinted glasses are sold under the trade name of "Rayex Night Glasses," and are devices as the term "device" is defined in the Federal Trade Commission Act.

PAR. 3. Respondents cause the said device, when sold, to be transported from their place of business in the State of New York to purchasers thereof located in various other States of the United States and in the District of Columbia. Respondents maintain, and at all times mentioned herein have maintained, a course of trade in said device in commerce, as "commerce" is defined in the Federal Trade Commission Act. The volume of business in such commerce has been and is substantial.

PAR. 4. In the course and conduct of their said business, respondents have disseminated, and caused the dissemination of, certain advertisements concerning the said device by the United States mails and by various means in commerce, as "commerce" is defined in the Federal Trade Commission Act, including, but not limited to, advertisements inserted in newspapers, magazines and other advertising media, for the purpose of inducing and which were likely to induce, directly or indirectly, the purchase of said device; and have disseminated, and caused the dissemination of, advertisements concerning said device by various means, including but not limited to the aforesaid media, for

the purpose of inducing and which were likely to induce, directly or indirectly, the purchase of said device in commerce, as "commerce" is defined in the Federal Trade Commission Act.

PAR. 5. In the course and conduct of their business and for the purpose of inducing the sale of the said tinted glasses, respondents have made certain statements with respect thereto in advertisements disseminated as hereinabove set forth. Among the typical, but not all inclusive, of such statements are the following:

Stop Headlight Glare
Eliminate Blinding Headlight Glare
Actually See in the Dark
See to Drive Through Fog Glare with Almost Perfect Daytime Vision
Rayex glasses do not eliminate light.

PAR. 6. Through the use of said advertisements respondents have represented, and are now representing, directly or by implication, that the wearing of respondents' tinted glasses will:

1. Eliminate glare from the eyes of the wearer.
2. Enable the wearer to see in the dark.
3. Enable the wearer to see through fog glare.
4. Improve night driving vision.
5. Allow all the light to reach the eye of the wearer.

PAR. 7. In truth and in fact the wearing of respondents' tinted glasses:

1. Will not eliminate or substantially reduce glare from the eyes of the wearer.
2. Will not enable the wearer to see in the dark.
3. Will not enable the wearer to see through fog glare.
4. Will not in any manner improve night driving vision.
5. Will not allow all the light to reach the eye of the wearer.

Therefore, the advertisements referred to in Paragraph Five were and are misleading in material respects and constituted, and now constitute, "false advertisements" as that term is defined in the Federal Trade Commission Act.

PAR. 8. The dissemination by respondents of the false advertisements, as aforesaid, constituted, and now constitutes, unfair and deceptive acts and practices in commerce, in violation of Sections 5 and 12 of the Federal Trade Commission Act.

Mr. Francis J. Charlton and *Mr. William E. McMahon, II*, supporting the complaint.

Mr. Roy C. Frank of Washington, D.C., for the respondents.

Initial Decision

66 F.T.C.

INITIAL DECISION BY DONALD R. MOORE, HEARING EXAMINER

FEBRUARY 14, 1964

STATEMENT OF PROCEEDINGS

The complaint in this matter was issued by the Federal Trade Commission on May 15, 1963, and was duly served on both respondents. It charges misrepresentation in the sale of tinted night driving glasses, in violation of Sections 5 and 12 of the Federal Trade Commission Act.

After being served with the complaint, respondents appeared by counsel and filed answer making certain admissions but denying generally any violation of law.

A prehearing conference was held in Washington, D.C., August 1, 1963. Hearings for the presentation of testimony and other evidence in support of, and in opposition to, the allegations of the complaint were then held in New York, New York, and Boston, Massachusetts, between October 1 and 9, 1963. At the initial hearing, the complaint was amended to correct an error in terminology, the word "eye" being substituted for "field of vision" in subparagraph 5 of Paragraphs Six and Seven (Tr. 56-66).

Throughout the proceeding, both sides were represented by counsel and were afforded full opportunity to be heard, to examine and cross-examine witnesses and to introduce evidence bearing on the issues. The evidence so presented was duly recorded and filed in the office of the Commission.

Proposed findings of fact and conclusions of law, accompanied by a proposed form of order, have been filed by counsel supporting the complaint and by counsel for respondents. Proposed findings not adopted, either in the form proposed or in substance, are rejected as not supported by the evidence or as involving immaterial matters.

After carefully reviewing the entire record in this proceeding, together with the proposals filed by both parties, the hearing examiner finds that this proceeding is in the interest of the public and, on the basis of such review and his observation of the witnesses, makes the following findings of fact and conclusions drawn therefrom, and issues the following order.

FINDINGS OF FACT

There is little or no dispute as to the basic facts concerning the respondents, their business operations and the nature of their product. By admissions in respondents' answer, by undisputed testimony of

the respondent Griffin and the witness Chick (Tr. 69¹ *et seq.*, 330 *et seq.* and 350 *et seq.*), and through CX 5,¹ the following facts have been established:

I. *The Business of Respondents.*

1. Respondent Vislo Corporation is a corporation organized, existing and doing business under and by virtue of the laws of the State of New York, with its principal office and place of business located in the Vislo Building in the city of Great Neck, State of New York.²

Respondent Eugene A. Griffin is the sole officer of the corporate respondent. He formulates, directs and controls the acts and practices of the corporate respondent. His address is the same as that of the corporate respondent.³

2. Respondents are now, and for several years have been, engaged in the offering for sale, sale and distribution of tinted night driving glasses. They have sold such glasses to distributors and dealers for resale, and also have made direct mail order sales to the purchasing public.

Since about October 1961, or perhaps October 1960 (Tr. 75, 76), the glasses have been advertised and sold under the trade name of Vislo Night Driving Glasses; previously they were advertised and sold under the name Rayex Night (or Nite) Glasses, or Rayex Night (or Nite) Driving Glasses. The glasses are devices as the term "device" is defined in the Federal Trade Commission Act.⁴

The glasses are contract manufactured to Vislo's order by Rayex Corporation, Flushing, Long Island. (Tr. 71, 356)

3. Respondents have caused their glasses, whether sold under the trade name "Rayex" or "Vislo," to be transported from their place of business in the State of New York to purchasers located in various other States of the United States and in the District of Columbia. Respondents maintain, and have maintained, a course of trade in such glasses in commerce, as "commerce" is defined in the Federal Trade Commission Act. The volume of business in such commerce has been and is substantial, approximately \$300,000 annually. (Tr. 70)

II. *The Product and Its Properties.*

4. The glasses consist of plastic lenses, the upper half having a

¹ The transcript of hearing is abbreviated herein as "Tr." Commission Exhibits are abbreviated "CX"; Respondents' Exhibits, "RX."

² Respondents admitted the complaint's allegations regarding the Great Neck location, but respondent Griffin testified that his and Vislo's office address is 75 East 55th Street, New York 22, New York (Tr. 69, 50-51). In the absence of any record explanation of this apparent discrepancy, it is presumed and found that the New York City office is additional to the principal office in Great Neck.

³ See footnote 2.

⁴ Sec. 15(d), of the Federal Trade Commission Act [15 U.S.C. § 55(d)] provides in pertinent part that the term "device" means instruments, apparatus, and contrivances intended "to affect the structure or any function of the body of man * * *."

yellow tint; the lower portion being clear. The tint is graduated, or gradient, ranging from light yellow about the middle of the lens to a darker shade at the top of the lens. This is accomplished by dip-coating a narrow sheet of plastic. The plastic is suspended over a tank in such a way that it can be dipped a number of times but to a lesser depth each time so that the result is a progressively heavy deposit of tint. (Tr. 353)

The composition of the coating is "a secret process," but two of its elements are chromium salt and silicon. (Tr. 354)

5. There is no dispute between the parties regarding the "spectral transmittance" of the glasses. Both sides rely on a report (CX 5) that shows "Spectral Transmittance in the Visible Region."

The report was made for respondent Vislo by Electrical Testing Laboratories, Inc., of New York. Offered as Commission Exhibit 5, it was received in evidence without objection. (Tr. 81) In the course of their defense, respondents called the Manager of the Photometric Laboratory, who supervised the tests, to explain the results. (Tr. 330 *et seq.*)

The tests made are described as follows:

Spectral transmittance measurements in the visible region were made using a recording spectrophotometer.

Transmittance measurements were made on the graduated density night driving eyeglasses through three different areas: (1) clear, (2) medium tint and (3) dark tint.

The total transmittance values for CIE Illuminant "A"⁵ were calculated from the spectrophotometric data.

6. For total light transmitted by each area of the Vislo glasses, the report showed 91.3 percent transmittance through the clear portion; 89.4 per cent through the medium tint; and 83.8 per cent through the dark tint. Conversely, the total light "absorbed" by each area is as follows:

	Percent
Clear	8.7
Medium tint.....	10.6
Dark tint	16.2

7. According to a graph included in CX 5 showing the spectral transmittance curves in the visible region, as interpreted by the witness Chick, the dark-tinted top section of the Vislo lens absorbs or eliminates a maximum of 82.5 per cent of the violet region of the spectrum.

Similarly, a maximum of 82.5 per cent of the blue region of the spectrum is eliminated, or an average of 77 per cent.

⁵ This is not fully explained in the record, but it appears that "CIE Illuminant 'A'" is an incandescent (tungsten) lamp used as a standard of measurement of luminous transmittance. (Tr. 103-104)

Elimination by the dark tint of other regions of the spectrum is tabulated as follows:

	<i>Percent</i>
Green -----	43
Yellow -----	13
Orange-red -----	8

8. The elimination accomplished by the medium tint was listed as follows:

	<i>Percent</i>
Violet -----	¹ 15.5
Blue -----	² 23.0
Green -----	² 16.5
Yellow -----	² 10.0
Orange-red -----	² 7.5

¹ Maximum.

² Average.

9. Thus, with reference to both the dark tint and the medium tint, the highest transmittance of light is in the yellow-orange, the yellow, the yellow-green and the red regions of the spectrum. (Tr. 341)

10. Various of the Government's witnesses concurred in the findings reported in CX 5. (Tr. 103-104, 235, 306)

III. *The Advertising Representations.*

11. In the course and conduct of their business, respondents have disseminated, and have caused the dissemination of, certain advertisements concerning their glasses. Such advertisements have been disseminated by the United States mails and by various means in commerce, as "commerce" is defined in the Federal Trade Commission Act. They have included, but are not limited to, advertisements inserted in newspapers, magazines and other advertising media, for the purpose of inducing, and which were likely to induce, directly or indirectly, the purchase of such glasses. Respondents also have disseminated, and caused the dissemination of, advertisements, concerning such glasses by various means, including, but not limited to, the media referred to. Such advertisements were for the purpose of inducing, and were likely to induce, directly or indirectly, the purchase of such glasses in commerce, as "commerce" is defined in the Federal Trade Commission Act.

12. In the course and conduct of their business, and for the purpose of inducing the sale of the Rayex or Vislo glasses, respondents have made certain statements in advertisements disseminated as set forth in Paragraph 11, above. Among and typical, but not all inclusive, of such statements are the following:

Stop Headlight Glare.

Eliminate Blinding Headlight Glare.

Actually See in the Dark.

See to Drive Through Fog Glare with Almost Perfect Daytime Vision.
Rayex glasses do not eliminate light.

Respondents admitted making the quoted statements, and respondent Griffin identified the advertising brochures (CX 3 and 4) from which the statements were taken.

13. On the basis of the advertisements in evidence (CX 3 and 4), and in the absence of any showing that those advertisements are not fairly representative of respondents' advertisement, it is found that the quoted statements are typical of the advertising statements made by respondents.

14. Through the use of the advertisements referred to in Paragraph 12 (above), respondents have represented, and are now representing, directly or by implication, that the wearing of their tinted glasses will:

1. Eliminate glare from the eyes of the wearer.
2. Enable the wearer to see in the dark.
3. Enable the wearer to see through fog glare.
4. Improve night driving vision.
5. Allow all the light to reach the eye of the wearer.

15. Concerning the meaning of the advertising statements challenged by the complaint, the pleadings create issues as to only two representations. In their answer, respondents admitted making the representations numbered 2, 3 and 4, and denied making only the representations numbered 1 and 5.

16. In their proposed findings, however, respondents argue that, when read in context, the words "actually see in the dark" refer to "seeing after dark when normal objects of light are present." This position is based essentially on the testimony of respondent Griffin to the effect that "while driving in the dark one has light," and that the glasses "deal with the matter of light." The Claim was not made "in connection with driving in the Sahara Desert without lights on your car." (Tr. 87)

Respondents argue that "No purchaser with an ordinary mind would be led to believe that the glasses would enable him to see in the absence of all light," or "in complete darkness."

The hearing examiner does not disagree with the principle that statements must be considered in the context in which they are made. Here, the representation *is* made in a setting in which the presence of some light may be implied.

Nevertheless, in view of respondents' admission, as well as the unambiguous nature of the claim, it must be found that respondents have represented that the glasses enable the wearer to see in the dark.

17. Regarding the first representation cited in Paragraph 14 above—

that the glasses eliminate glare—respondents' position is that, read in context, the claim has been made only with respect to *blinding* glare.

Since, according to Webster's New International Dictionary (2d ed.), the word "glare" carries with it a meaning of intense, dazzling, overpowering brightness, and since, in respondents' advertising, the word is frequently modified by the word "blinding," the examiner is inclined to agree that respondents' representations have dealt with blinding glare, whether or not so denominated. It may be assumed that the public would so interpret the advertising, but without drawing any nice distinctions between degrees of glare.

However, it is difficult to understand just why respondents insist on that distinction. By claiming elimination of blinding glare through the use of their glasses, they necessarily imply elimination of any glare lesser in degree than blinding glare.

In view of the finding, *infra*, concerning the efficacy of the glasses with respect to glare—blinding or otherwise—the distinction sought to be made by respondents is of no great significance.

Regardless how the term "glare" may be technically defined, and whether or not the public distinguishes between "glare" and "blinding glare," the fact is that respondents have represented that their glasses eliminate glare.

18. The other representation that respondents deny making is that numbered 5 in Paragraph 14 above, to the effect that the glasses allow all the light to reach the eye of the wearer. This representation is the interpretation placed by the complaint, as amended, on advertising statements that the lenses "do not eliminate light."

The examiner rejects the attempt of respondents, in their proposed findings, to qualify the claim to mean only that the glasses "do not eliminate light necessary to enable the wearer of the glasses to see effectively while driving at night." Respondents argue that, when read in context, the claim that the glasses "do not eliminate light" means that they do not eliminate light "to the extent that the wearer of the glasses is prevented from seeing effectively while driving at night." Such a representation obviously is included in the advertising statement, but the claim is not so delimited.

19. Here again, as in the case of "see in the dark," the respondents are undertaking to change the plain meaning of words that they themselves have chosen to use. The record affords no basis for a finding that respondents' advertising claims regarding elimination of light embrace the qualifications or limitations that they say were intended.

One does not have to be unduly sensitive to the protection of the

gullible and credulous to hold these respondents responsible for the literal meaning of the words that they have chosen to use in advertising.⁶ The word "eliminate" is "a word of common understanding," and does not carry the connotation contended for. In the absence of any showing to the contrary, it must be found that respondents used the word in its "ordinary and commonly accepted understanding." *International Parts Corp. v. FTC*, 133 F. 2d 883 (7th Cir. 1943).

IV. *The Proof of Misrepresentation.*

20. In truth and in fact, the wearing of respondents' tinted glasses:

1. Will not eliminate or substantially reduce glare from the eyes of the wearer.

2. Will not enable the wearer to see in the dark.

3. Will not enable the wearer to see through fog glare.

4. Will not in any manner improve night driving vision.

5. Will not allow all the light to reach the eye of the wearer.

21. The findings in Paragraph 20 were reached after careful consideration and weighing of all the evidence presented by both sides. The determinations set forth find support for the most part in the testimony of four expert witnesses presented in support of the complaint, and also in certain of the testimony presented by respondents.

As will be demonstrated, the conflict between the testimony of the Government's witnesses and that presented by respondents is more apparent than real.

To the extent, however, that there is a conflict, the examiner finds that the weight of the evidence supports the allegations of the complaint.

22. The four expert witnesses presented in support of the complaint, together with a brief summary of their qualifications, are as follows:

Professor Charles R. Marsh—Associate Professor of Electrical Engineering, Pennsylvania State University, University Park, Pennsylvania, since 1948. He holds a Master of Science degree from the University of Illinois and has been engaged in teaching and research since 1935. His activities in the field of night driving problems include the following:

1951-54-----	Consultant on Highway Visibility, Westinghouse Corp.
1955-57-----	Illuminating Engineering Society Research Grant: Visibility in Fog.
1960-date-----	Consultant on Visibility Problems, New Jersey Turnpike Authority.
1962-----	Chairman, Papers Committee of the Night Visibility Committee, Highway Research Board, National Academy of Sciences.

⁶ Cf. *Universe Company*, D. 8538 (Nov. 7, 1963) [63 F.T.C. 1282].

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Initial Decision

- 1959-date----- Night Visibility Committee, Highway Research Board,
National Academy of Sciences.
- 1956-date----- Motor Vehicle Lighting Committee, Illuminating Engi-
neering Society. Vice-Chairman and Chairman-elect,
1963-64.

Publications and studies in which Professor Marsh has been involved have covered such subjects as "Highway Visibility in Fog"; "Headlight Dimming" and "Optical Problems." (CX 6)

Dr. Gerald E. Fonda—Practicing ophthalmologist in Short Hills, New Jersey, and Associate Clinical Professor of Ophthalmology, New York University Post-Graduate Medical School. He is also attending ophthalmologist at St. Barnabas Medical Center, Newark, New Jersey, and at Overlook Hospital, Summit, New Jersey, and is Assistant Ophthalmic Surgeon at the New York Eye & Ear Infirmary.

Dr. Fonda is a diplomate of the American Board of Ophthalmology (1947) and a Fellow in the American College of Surgeons (1958). He is a member of the Illuminating Engineering Society, the Vision Committee of the National Research Council, and numerous other professional organizations. (CX 7, Tr. 174-179)

Dr. Fonda is the author of numerous technical reports published in professional journals and has made a number of presentations at professional meetings. (CX 7)

Dr. Oscar W. Richards—Chief Biologist, American Optical Company, Southbridge, Massachusetts, in charge of the Biological Optics Section in the Research Laboratory. Dr. Richards received his Bachelor of Arts and Master of Arts degrees from the University of Oregon, and his Ph. D. from Yale University. He has been on the faculty of both these institutions and at Clark University. He also has been a lecturer at Woman's College, New Haven, Connecticut; University of Buffalo, and Brown University.

Dr. Richards has been Chairman of the Research Subcommittee of the Highway Research Board since 1957, and a member of its Night Visibility Committee since 1951. The national committees and professional societies with which he has been affiliated are set out at length in CX 8B.

Dr. Richards has been a prolific writer, and the bibliography of his work covers some 16 pages. (CX 8C-R) Many of them have dealt with subjects closely related to the problems involved in this proceeding. For several years, Dr. Richards has reviewed annually the literature relating to night driving.

Dr. Ernst Wolf—Research Associate of the Retina Foundation, Boston, Massachusetts; Research Fellow in Ophthalmology, Massachusetts Eye & Ear Infirmary, Boston; Instructor in Ophthalmology,

Harvard Medical School; and Research Associate in Psychology, Wellesley College.

Dr. Wolf has a Ph. D. degree in biology from the University of Heidelberg. He has been engaged in research and teaching for many years, and is a member of the Night Visibility Committee of the Highway Research Board. The list of publications of which he has been author or coauthor is impressive. (CX 9A-G)

23. In the field of highway visibility and night driving glasses, it appears that Dr. Richards is pre-eminent.

Respondents themselves recognize Dr. Richards' special qualifications.

At the outset of his examination, respondents made the simple concession that Dr. Richards' qualifications as an expert were acceptable. (Tr. 230)

In the course of cross-examination, however, it was developed that Dr. Richards has tested tinted glasses for many years and has "read practically everything in the field of literature, articles and publications, with respect to lenses for night driving." He is "familiar with the viewpoints of various researchers." (Tr. 265)

Later, respondents' counsel said of Dr. Richards:

He is a very excellent man in his field. He has read and written scores of articles. He has researched for many years. He works for an optical company that I am certain keeps up to every new development in the optical field by its competitors and by others.

I am very certain that there isn't anything going on in the optical field that Dr. Richards doesn't know about. * * * (Tr. 283)

24. On the other hand, respondents request that the hearing examiner disregard in its entirety the testimony of Professor March and Dr. Fonda.

This the examiner declines to do.

25. Cross-examination of Professor Marsh disclosed certain limitations on his knowledge of ophthalmology and related matters. Actually, respondents posit their criticism of Professor Marsh on his lack of familiarity or disagreement with certain books and other publications referred to in cross-examination by respondents' counsel but never established to be authoritative and never received in evidence.

Irrespective of Professor Marsh's limited knowledge concerning the structure and mechanics of the eye, it is apparent that his education, training and experience qualify him as an expert in the field of highway illumination and night driving. His lack of familiarity with "dazzling glare" as a technical British term is surprising but not discrediting. (Tr. 128-29, 289-90)

Although he did tend to quibble and become evasive when he was led into subject matter outside his specialty, the examiner does not consider that this requires that all his testimony be disregarded. His testimony has been weighed in the light of the admitted limitations on his qualifications.

Mr. Marsh freely conceded that he had never made any investigation or study of tinted lenses for night driving, and has not written anything on the subject. He has read some of the literature. (Tr. 120-121)

Defining an expert as "someone who had made more than an ordinary study, or had more than ordinary experience in a field," Professor Marsh considered himself an expert in the field of tinted lenses. "Indirectly" he has made more than an ordinary study in the field of night driving tinted lenses. (Tr. 123) By this he meant he had expertise in the general field, derived from tests involving

the use of colored light achieved by means other than having a filter before the eye, which is quite valid in optical models, to color the light source as well as to color the viewing filter. * * * (Tr. 124)

26. Similarly, respondents have shown no basis for disqualifying Dr. Fonda as an expert, either for want of knowledge or for bias. His qualifications (CX 7) speak for themselves, and respondents' main objection seems to be that his testimony is not in accord with their theories.

Dr. Fonda refused to subscribe to respondents' theory concerning the significance of the short wave blue and violet in the field of headlight glare. His testimony on this subject also may vary to some extent from that presented by the other Government experts.

This is a factor that the examiner has taken into account in reaching his decision, but contrary to respondents' contentions, does not disqualify the witness or demonstrate bias.

In considering the disparagement of Dr. Fonda's testimony by respondents, it is interesting to note that whereas respondents' counsel indicated surprise, if not incredulity, when Dr. Fonda declined to agree that there was a difference of 100 per cent in a visual acuity of 20/20 and one of 20/40 (Tr. 222-224), respondents' own witness, Dr. Cohen, stated that "Given a percentage of visual efficiency of 20/20 at 100 percent, the American Medical Association has determined that 20/40 represents 83.6 per cent of visual efficiency." (Tr. 367)

27. Defense witnesses, besides the individual respondent Griffin, were:

Dr. Irwin Cohen—Practicing ophthalmologist in New York City. He is Assistant Clinical Professor of Ophthalmology at the New York

University Post-Graduate College of Medicine and is affiliated with a number of hospitals. He is a diplomate (1952) and Fellow (1953) of the American Board of Ophthalmology and a Fellow of the American College of Surgeons (1959).

Dr. Cohen has been the author or co-author of articles in professional publications, but none have been directly related to the field of night driving. (RX 2)

As a matter of fact, Dr. Cohen stated that he did not hold himself out to be an expert on night driving. He did, however, consider himself an expert in the field of night vision "to the extent that night vision forms a portion of my practice of ophthalmology of which I am a specialist." (Tr. 419)

A. R. Chick—Manager, Photometric Laboratory, Electrical Testing Laboratory, Inc. Mr. Chick's qualifications are listed on RX 1. They are not detailed here because there is no issue as to his qualifications. As noted, both sides rely on the test he made of the Vislo glasses.

28. The evidentiary basis for each of the findings in Paragraph 20, *supra*, is set forth *seriatim*.

29. The finding that the Vislo glasses: "Will not eliminate or substantially reduce glare from the eyes of the wearer" is supported by the unanimous opinion of the four experts who testified on behalf of the Government. Their testimony is to the effect that while the Vislo glasses may reduce glare, the reduction is negligible because the glasses—even the darkest tint—fail to cut out an appreciable amount of light. On the other hand, their testimony is to the effect that although the amount of light eliminated is insufficient to reduce glare appreciably, it *is* sufficient to reduce visual acuity to a significant degree.

30. What is glare? There is no single clear-cut definition in this record; the word is variously defined by the experts, but the import of all the definitions is similar.

31. Dr. Richards defined glare as "Any amount of light which spoils or decreases vision, any extraneous light [which] would spoil or decrease vision." ⁷ Glare is produced by "Any light source that lies within the line of vision which does not contribute to the image * * *." (Tr. 252)

Headlight glare "would tend to cover the image of the road you are looking at and wash out the contrast," Dr. Richards said; "the effect would be a general veiling and reduced contrast." (Tr. 254)

32. Dr. Wolf defined glare as "adverse light which makes visibility of

⁷ This definition is "acceptable" to respondents. ("Proposed Findings," etc., page 8).

objects exceedingly hard," and as "light in the wrong place." (Tr. 305)

33. Dr. Fonda described glare as "an uncomfortable sensation caused by too much light, constricted light or poor distribution of light which, in extreme cases, may interfere with vision." Constricted light means focused light. Dr. Fonda explained: "If you shined a flashlight into my eyes, that would be glare." A searchlight would be constricted light. (Tr. 181-82; see also Tr. 200-05)

34. Professor Marsh defined glare (including veiling glare) as "the reduction in visibility of a target due to light from some other area of the field of view." He doesn't "quarrel" with a definition of glare as "The sensation produced by light so invading the eye as to inhibit distinct vision."

That definition seemed "all right" to the witness, although he "wouldn't state it that way." (Tr. 125-27; see also Tr. 127-30)

35. Respondents' expert, Dr. Cohen, defined three "types of glares which are more in the nature of quantum of glare." His classifications are as follows:

Veiling glare—"an amount of glare sufficient to cast a veil or haze over the vision. This is adventitious light which has value to the seeing image."

Dazzling glare—"where you have glare, or adventitious light, surround[ing] the image itself."

Blinding glare—"glare of such intensity to blanch out the useful image entirely." (Tr. 409)

36. There was some recognition by all the Government's witnesses of various degrees of glare, but no general acceptance of Dr. Cohen's classifications or definitions of "veiling glare," "blinding glare" and "dazzling glare."

37. For purposes of this proceeding, "glare" may be taken to mean light of such a nature or degree invading the eye as to cause discomfort in the eye and a temporary loss or impairment of central vision.

38. Regarding the effectiveness of the Vislo glasses in eliminating or reducing glare, the position of the Government's witnesses may be summarized as follows:

39. Professor March expressed the opinion that the Vislo glasses would not stop headlight glare. (Tr. 106) He explained:

It could stop glare only by reducing the amount of light reaching the eye from the glare source and ordinarily if headlights are glaring, the amount available is so far in excess of what would produce glare that attenuating it by 16 or 17 per cent would be insignificant. (Tr. 107)

Thus, according to Marsh, the reduction of headlight glare by the Vislo glasses would be so small that it would not substantially affect the glare problem.

40. The opinion of Dr. Fonda—based on his examination of the glasses, his background, his education and his experience—was that the wearing of these glasses will not “stop” headlight glare or “eliminate” glare from the eyes of the wearer. (Tr. 185, 189)

According to Dr. Fonda, the glasses will “reduce” glare “to some extent” (Tr. 185, 189–90), but the reduction is not of any practical value. It is so slight in proportion to the brightness of the light that he does not think it is “appreciable.” (Tr. 185–86)

41. In Dr. Richards’ opinion, the Vislo glasses would not have “any effect on any serious glare.” They would reduce glare only to “a negligible degree.” (Tr. 253) His opinion is the same with regard to any type of glare. (Tr. 254)

Dr. Richards’ opinion is based on his examination of the Vislo glasses, his education, his experience and his research in the field of optics and vision. (Tr. 252–53)

According to this witness, use of a yellow lens like that in the Vislo glasses “would reduce the effect of glare by around 15, 20 percent,” depending on the adaptation level of the wearer, and “would reduce his seeing of the road the same amount.” (Tr. 291)

Dr. Richards knows of “no good scientific information” reaching the conclusion that “yellow tinted glasses are effectual or have merit for night driving.” He knows of no researchers who have reached that conclusion. (Tr. 266)

In the course of further cross-examination, respondents’ counsel inquired whether the merits of yellow night driving glasses are still “uncertain.” To this question, Dr. Richards responded “Not at all.” (Tr. 270) He was then asked whether he meant that it is certain that night driving glasses have no value. (Tr. 270–71) His answer was: “I believe that all of the experts on vision hold that opinion.” And Dr. Richards is certain of it in his own mind: “[W]e found out that they were useless back in 1953.” (Tr. 271)

42. Dr. Wolf has examined and tested the Vislo glasses. (Tr. 306) On the basis of that examination, together with his education, experience and research in the field of optics and vision, his opinion is that the Vislo glasses “will not eliminate” glare (Tr. 307) or blinding headlight glare. (Tr. 311)

“They will reduce glare” but are not of “any practical value for night driving.” Although the dark-tinted portion of the glasses reduces the amount of light coming to the eye by 16 per cent, Dr. Wolf said, “at the same time you have to see objects on the road which are also reduced by the same amount of 16 per cent: so you end up with the same reduction of brightness on both things, on the glare and on what you are supposed to see.” (Tr. 307–08)

Dr. Wolf does not think that the wearing of tinted lenses is the solution to the problem of glare in night driving. (Tr. 309)

43. To overcome this consensus of expert opinion, respondents rely on the opinion testimony of Dr. Cohen, an ophthalmologist, and the evidence of certain tests performed by him (Tr. 368, 375 *et seq.*) and by others (CX 5; Tr. 330 *et seq.*).

44. It is significant, however, that Dr. Cohen was extremely guarded in his defense of respondents' advertising claims in the field of glare.

Although he indicated that the glasses would stop veiling glare and reduce the "recovery time" after light shock caused by glare, he never did specifically and unequivocally state that the Vislo glasses would eliminate or stop headlight glare, dazzling glare or blinding glare. At most, this was suggested by his statement that the yellow lens would filter out "the major component" of the glare source. This is considered in more detail *infra*.

45. There is a curious inconsistency in respondents' position that the Vislo glasses "will eliminate blinding headlight glare, and will substantially reduce other forms of glare." (Proposed finding No. 10; see also pages 8 and 9)

The record indicates, and Dr. Cohen agrees, that blinding glare is the most extreme form of glare. Yet respondents claim to "eliminate" it while only "reducing" other unidentified forms of glare. If the glasses can eliminate *blinding* headlight glare, it follows that they also can eliminate any lesser form of glare.

On this record, the finding is that the Vislo glasses can do neither.

46. Dr. Cohen described as "a fair statement" the respondents' advertising claim (CX 4) that the Vislo glasses "stop headlight glare." It is a fair statement, he said, to the extent that the yellow color of the lens gives "sharper definition" and to "the extent that the recovery time * * * with the use of the glasses is shortened * * *." (Tr. 408)

The record does not indicate how "sharper definition" stops glare, but "recovery time" refers to a test by Dr. Cohen purporting to show that the glasses reduce the time required for the eye to recover from an exposure to extremes of light so that it may again see clearly. (Tr. 375)

Dr. Cohen first avoided the direct question, "Will these glasses stop headlight glare?" He paraphrased it to call for "a subjective interpretation" of whether he believed the glasses "will tolerate glare better than without them." To that question, he "would have to say yes." (Tr. 408)

47. When the direct question was repeated, Dr. Cohen again parried, saying "We will have to get what glare in the field would mean." (Tr. 408) After defining his three classes of glare (see Paragraph 35,

supra), he said he believes the glasses would stop veiling glare by "looking through the yellow portion of the lens." (Tr. 409)

48. Next, without directly answering as to "blinding glare" and "dazzling glare," Dr. Cohen set forth the thesis that constitutes one of the key elements in respondents' claim that the Vislo glasses stop glare. He said "dazzling glare" is

an irritating portion of the spectrum which is in the blue-violet field, and the yellow filter, being the complementary color to the blue, will filter out blue, and also by filtering out the blue, this will also filter out the major component of what we believe to be the glare source. (Tr. 409)

It is possible to get glare from other portions of the spectrum, but "the blue field is considered to be the area of the greatest quantum, if you will, of glare ensuing from any one particular portion of the spectrum." (Tr. 410)

Dr. Cohen was unable to state the percentage of blue in automobile headlights. He said the headlight, as an incandescent, "would have a blue component," but he could not state the exact percentage of blue in it. (Tr. 410)

Dr. Cohen insisted, however, that a reduction of the blue component of headlight glare reduces the amount of glare reaching the eye. He stated:

I cannot give you an exact percentage, but I can give it to you as a principle that when you eliminate blue from a light source, you will eliminate what is considered to be one of the most important sources of glare. (Tr. 410)

49. This statement of Dr. Cohen is coupled with the undisputed facts shown by CX 5 to provide the foundation for respondents' defense to the glare elimination charge.

As set forth in Paragraphs 7-9 *supra*, CX 5 shows that the Vislo glasses reduce the short wave violet and blue regions of the spectrum substantially, particularly in the dark-tinted upper portion of the glasses. The glasses eliminate an average of 77 per cent of the short wave blue in the dark tint, and 23 per cent in the medium tint. (Tr. 337-38) The dark tint eliminates a maximum of 82½ per cent of the short wave violet; and the medium tint, 15½ per cent. (Tr. 338) From this, respondents argue:

Since the greatest amount of the short wave violet and blue regions of the spectrum are eliminated by the dark tinted portion of the Vislo Night Driving Glasses, and since these two regions, particularly the blue, are the major cause of glare, it must necessarily follow that the major portion of glare is eliminated by wearing the glasses. It must further necessarily follow that by eliminating the major portion of the glare, the blinding effect of glare is eliminated, and that other forms of glare are substantially reduced, if not entirely eliminated * * *. (Proposed Findings, page 9)

50. But respondents claim too much when they say in effect that all the witnesses except Dr. Fonda agree essentially with some or all those conclusions.⁸

51. Professor Marsh conceded that the upper portion of the Vislo lens "would reduce blue to 33 percent transmittance," as an average. (Tr. 160)

In choosing to cite Professor Marsh here, despite their earlier effort to discredit his expertise, respondents fail to refer to his previous testimony that all regions of the spectrum could cause dazzling glare. He stated that any color could cause dazzling; yellow could if the luminance were high enough. (Tr. 157-58)

52. Respondents' shorthand summary of the testimony on this subject (Proposed Findings, pages 8-9) does particular violence to the position enunciated by Dr. Wolf.

After agreeing that the dark-tinted portion of the Vislo glasses eliminates about 84 per cent of the short wave blue, and the lighter tint eliminates about 25 per cent of the blue, Dr. Wolf conceded that it is the blue, the violet and the ultraviolet that produce "scatter"; so to eliminate glare, it is desirable to eliminate as much of the violet, ultraviolet and short wave blue as possible. (Tr. 318-19)

On redirect examination, however, when Dr. Wolf was asked about the amount of blue transmitted from automobile headlights at night, he indicated there is "relatively little" blue in automobile headlights. He was then asked:

Would the wearing of the Vislo night driving glasses have any effect, any practical effect, on the blue that is transmitted from an oncoming automobile headlights with regard to the elimination of the short wave blue?

To this, Dr. Wolf replied:

I don't think it makes any difference at that level. (Tr. 321-22)

Under further cross-examination, Dr. Wolf agreed that glare is accentuated by the short wave blue. Then this colloquy followed:

Q. So when the car comes toward you and glare gets in your eyes, that glare to a large extent is caused by the short wave blue, that section of the spectrum of your eye?

A. Yes.

Q. And if you eliminate that, you get less glare?

A. Yes. (Tr. 323)

Regarding the fact that the dark tint in the Vislo glasses eliminates

⁸ Many of respondents' record citations (Proposed Findings, page 9) have to do with "chromatic aberration of the eye," but its relationship to glare is not shown. Whatever the effect of the glasses on that phenomenon, it does not resolve the glare question.

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84 per cent of the short wave blue, the question was asked whether that 84 per cent represents a substantial elimination. Dr. Wolf replied:

In connection with the tungsten filament lamp of the headlight, I think it's insignificant. (Tr. 323-24)

Dr. Wolf would not agree that the glare is reduced by 84 per cent. He explained:

Your glare is not only produced by the blue light; there is the total spectrum. The blue alone doesn't have a lot of light in your spectrum. You have a good deal of radiant energy around which if you don't have the blue or the green or the red it still causes glare.

* * * You do not take one part of the spectrum, but you take the total. (Tr. 324)

The total amount of energy which reaches the eye is scattered around. You can cut scatter with the green light and red light if you make it strong enough.

* * * you cannot bind me down and say if you take the blue out you reduce glare by 84 per cent, forgetting the green and yellow and everything else or the white light which causes a great deal of it. I am not going along with that; I can't. (Tr. 324-25)

53. Dr. Fonda testified on cross-examination that the Vislo glasses cut out "the shorter end of the spectrum," with the greatest cut-out in the shortwave blue (Tr. 198), but he did not consider this "significant" with respect to either dazzling glare or veiling glare. (Tr. 204-05)

Later, respondents' counsel asked a question regarding "dazzling light." (Tr. 219-20) The question is confusing in its terminology, but Dr. Fonda made clear that the dazzle depended more upon the quantity of the light than upon its color. Whether the light is blue or red is "not a significant factor for a light-adapted eye." (Tr. 220)

54. Dr. Richards also touched briefly on this subject (Tr. 275-76), but unfortunately, the colloquy is not illuminating.

55. Thus, the evidence leads to the conclusion that although the Vislo glasses admittedly screen out much of the shortwave blue and violet light, this is not a significant factor in the elimination of automobile headlight glare, blinding or otherwise.

56. As previously noted, respondents rely also on a test made by Dr. Cohen respecting "recovery time." (Tr. 375 *et seq.*) He defined this term as meaning that time, usually expressed in seconds, "required for the eye to recover from an exposure to extremes of light so that it may again see clearly." Dr. Cohen had made the test at the request of respondent Griffin.

Using a device called a portaglare instrument, Dr. Cohen sought to ascertain the recovery time of a wearer of the Vislo glasses as compared to the recovery time of the same person when not wearing the glasses. The tests were made on himself, his wife, his daughter, respondent Griffin and Mrs. Griffin.

57. Dr. Cohen described the test in substance as follows: The test subject is exposed to bright headlights for five seconds. At the instant the headlights are turned off, a test letter is illuminated within the field of vision of the subject, and a timing device measures the number of seconds required to recognize the test letter.

All the subjects were first tested without glasses. Then each was tested wearing the Vislo glasses.

Dr. Cohen made two tests on himself. He first tested himself without glasses, then tested the other four subjects without glasses. This took about 20 minutes after Dr. Cohen's first exposure to the headlights.

Then he tested himself wearing the Vislo glasses. This was followed by a similar test, using the Vislo glasses on the other four subjects. The same complete procedure was then re-done on Dr. Cohen approximately 30 minutes later.

58. Dr. Cohen first testified that his recovery time on the first test without glasses was three seconds. He later stated the correct time was 2.9 seconds. The time of three seconds was registered on the second test without the glasses.

For Dr. Cohen, use of the Vislo glasses shortened the recovery time to 2.2 seconds in the first examination, and 2.3 seconds in the second examination. Thus, in each case, the recovery time was shortened by .7 of a second.

According to Dr. Cohen, the recovery time for each of the other subjects was shortened as follows:

	<i>Seconds</i>
Mrs. Cohen -----	.5
Susan Cohen -----	.8
Mrs. Griffin -----	¹ .4
Mr. Griffin -----	¹ .5

¹ Approximately.

Dr. Cohen said the recovery time for Mrs. Cohen was 3.4 seconds without glasses, and 2.9 seconds using the Vislo glasses. He could not recall what the respective readings were for his daughter, Susan, nor did he state respective readings for Mr. and Mrs. Griffin.

59. Dr. Cohen gave his statement of the test results from memory. He stated that the results were not reduced to writing "[a]t the time." (Tr. 377) In answering the question as to the test results on Mrs. Griffin, Dr. Cohen said:

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To the best of my recollection, it was approximately .4 of a second in Mrs. Griffin and .5 of a second in Mr. Griffin. (Tr. 383)

Regarding his inability to recall respective readings for his daughter Susan, Dr. Cohen stated he "made no notes of her test at the time." The record indicates that the test results were never reduced to writing. (Tr. 377-78)

60. Dr. Cohen twice referred to the test as "a casual test." (Tr. 382, 404) He has not published any report of the test.

61. Dr. Cohen was careful to state that he was simply reporting on the number that he tested and the results that he found. (Tr. 397) He declined to draw any general conclusions or to extrapolate the test results.

Although "five is too few to be able to draw a percentage conclusion," Dr. Cohen did say that the results of his test were such that he thought he could reasonably expect that there would be benefit in a great number of other individuals. (Tr. 398)

62. Dr. Cohen was asked about his willingness to publish in professional circles the results of the portaglare test. He said he would have no hesitancy to publish it "as a preliminary report—as a report which indicated my findings so far as I had gone with this examination." He would not be prepared to make a report with extrapolations from those five people to a thousand or to twenty. He "would be most happy to make a report as a preliminary report indicating a trend" that he had discovered.

"It does not purport to be, nor would it be, a definitive report." (Tr. 400-01)

63. In the opinion of the examiner, the test results are not such as to overcome the expert opinion testimony of the Government witnesses.

64. The test procedures—conceded by Dr. Cohen himself to have been "casual"—leave much to be desired. Despite the explanation by Dr. Cohen (Tr. 398, 415) it does not inspire confidence to find a party in interest involved in the test. To say this is not necessarily to impugn the good faith of Dr. Cohen or anyone else.

Although Dr. Cohen was competent, from a legal standpoint, to testify to the test results from memory, this again does not inspire confidence in the exactitude of the results reported. It is not particularly helpful to have approximations when dealing with time measurements in tenths of a second, or to have such figures given to the best of a witness' recollection.

Another point worthy of mention is that there was no showing in this record that the test conditions were comparable to night driving conditions on the road.

65. These considerations aside, however, the most that can be said for the test results is that they indicate that for the five persons tested, the use of the Vislo glasses tended to reduce the recovery time from the blinding effect of glaring headlights. This is hardly contradictory of reasoned opinions by experts that the glasses do not *eliminate* glare.

Two or more seconds were required for "recovery" even with the glasses on, so that the wearing of the glasses did not *eliminate* the headlight glare that presumably produced the light shock.

66. Concerning the finding that the glasses: "Will not enable the wearer to see in the dark," there is actually no dispute between the parties concerning the truth of this representation literally construed.

67. As noted previously, respondents have consistently taken the position that the words "actually see in the dark," when read in context, were intended to refer, and are understood to refer, to seeing after dark when normal objects of light are present.

That contention having already been disposed of adversely to respondents, there is no necessity to quote all the references in the record proving that the glasses do not permit one to see in the dark.

68. All the witnesses who were asked about this particular representation agreed that it is impossible to see in the dark with or without the Vislo glasses.

Defining dark as the total absence of light, respondents' witness, Dr. Cohen, testified that no one can see in the dark. (Tr. 410)

Other record references to the evidence regarding this representation include respondent Griffin (Tr. 87); Professor Marsh (Tr. 107); Dr. Richards (Tr. 240-41); Dr. Fonda (Tr. 181, 187); and Dr. Wolf (Tr. 305, 308-09).

It may be noted in passing that some of this testimony developed the fact that the Vislo glasses would not improve vision even in the presence of normal objects of light. This is more fully covered in Paragraphs 78-83 *infra*.

69. As in the case of glare elimination generally, the evidence clearly shows that the Vislo glasses: "Will not enable the wearer to see through fog glare."

70. Professor Marsh stated unequivocally that the wearing of the Vislo glasses would not enable the wearer to see through fog or improve visibility in fog. (Tr. 107-08)

Professor Marsh referred to "a feeling that visibility in fog is better in yellow light," but he said that this is true only for haze of a different order of magnitude. Fog particles are so large compared to the wave length of visible light that there is no selective scattering, so

that fog is transmitted light without discrimination as to color. (Tr. 108)

This witness pointed out also that the yellow lenses in the Vislo glasses would reduce the color contrast with yellow or amber warning signal lights on the highway. (Tr. 108-09)

Concerning the specific claim that the Vislo glasses permit the driver to "see through fog glare with almost perfect daylight vision," Professor Marsh said this is not true; that "there is no known way to see through fog with anything approaching perfect daytime vision." (Tr. 119)

71. A similar position was taken by Dr. Fonda. He stated that the Vislo glasses "don't enable you to see through fog glare." (Tr. 187) He specifically branded as "false" the advertising claim that the glasses permit one to "see through fog glare with almost perfect daylight vision." He explained that "you are in the dark, so you can't see with daylight vision. The daylight vision is not there." (Tr. 188)

72. Similarly, Dr. Richards was of the opinion that the Vislo glasses would not be of any help in seeing through fog or haze. (Tr. 241) He characterized as "untrue," the specific advertising claim regarding seeing through fog glare with almost perfect daylight vision. (Tr. 246)

According to Dr. Richards, "you can't see as well in fog as you can in good daylight vision. There isn't as much light to the eye, and the light is badly diffused." (Tr. 247)

73. Dr. Wolf stated that it is "not true" that Vislo glasses provide almost perfect daylight vision in seeing through fog glare. (Tr. 310) The advantages of using the glasses in fog glare are "negligible" because "the reduction of the brightness of the glare also applies to the reduction of the light you need for seeing objects which are not illuminated and, therefore, you don't gain anything." (Tr. 308)

74. Respondents' witness, Dr. Cohen, referred to respondents' advertising claims concerning fog glare as "contradictory." He stated that "on the one hand you talk of fog-glare which would be present with headlights at night, and on the other hand you talk about daytime vision, and I do not think the two can be compared." (Tr. 411)

Although he has not tested the glasses personally in a fog situation, Dr. Cohen believed they would be of assistance when driving in fog. The basis of his opinion was the fact that fog lamps on automobiles are in a monochromatic yellow color; that turn signals on automobiles in 1963 are yellow in color; and that headlights are required to be yellow in France and in other European countries. (Tr. 373-74)

In using the fog lamp on his automobile, Dr. Cohen found that he was able to see a greater distance; he did not have as much as a sense

of haze and fog using the yellow lamp as with his headlamps. There appeared to be "more of a scatter or dispersion of light when the white light was used rather than the yellow." (Tr. 373)

According to Dr. Cohen, it makes no difference whether the yellow filter is in front of the eye or over the headlights.⁹ "The net radiant energy received would be the same assuming the filter was the same." (Tr. 372, 416-17)

75. The explanation of respondent Griffin was that he "started with the fact that yellow filters are used on cameras in order to sharpen the outline of cloud formations, and in order to sharpen the outlines of anything you want to take pictures of on a hazy day that has to be done." Proceeding from there, he used his glasses "on foggy days and found them very helpful." (Tr. 89)

76. The weight of the evidence requires a finding that the Vislo glasses are not efficacious in allowing one to see through fog glare.

In addition to the testimony directly on this point, the examiner has also taken into account the testimony regarding the efficacy of the Vislo glasses in eliminating or reducing headlight glare generally. See Paragraphs 28-42, *supra*.

77. The testimony of the Government's experts also supports the finding that the Vislo glasses: "Will not in any manner improve night driving vision." Respondents' evidence to the contrary is not persuasive.

78. The testimony of Professor Marsh was definite that the wearing of the Vislo glasses would not improve night driving vision. He stated:

There would be some increase in comfort due to the reduction of the headlight glare, but in the regions of critical seeing, the same loss of light would produce a loss of vision even greater than the reduction in glare. (Tr. 119-20)

Use of the upper dark tinted portion of the Vislo glasses would reduce the vision of the observer, according to Professor Marsh. This is "Because his eye receives less light." (Tr. 105-06) The witness made clear that he was talking about the effect only in the light conditions ordinarily encountered in night driving. He said that this objection would not be true in the hearing room. (Tr. 106)

79. Wearing of the Vislo glasses "would make night driving worse" in the opinion of Dr. Fonda. He explained that "already there is not enough light to see driving at night and if a lens cuts down on the transmittance, why, that makes it more difficult to see." (Tr. 187)

80. Dr. Richards was of a similar view. The effect of wearing the Vislo glasses would be to "decrease night driving vision," Dr. Richards testified. There is not enough light for good visibility during night

⁹ This aspect of the matter is considered *infra*, Par. 91.

driving on most roads, and the use of glasses that cut down on the light reaching the eye is not helpful. (Tr. 238, 249)

Dr. Richards' opinion is predicated on studies and tests in which he has been engaged for more than ten years. In a 1953 report on experimental work involving yellow glasses, the finding was that "vision was decreased by about the amount of light absorbed." (Tr. 234)

Although there have been subsequent studies, there has been no basic change in Dr. Richards' position with regard to yellow lenses since the publication of the 1953 study. (Tr. 235, 237) They are "useless" and "have no value" for night driving. (Tr. 271) (See Paragraph 41, *supra*.)

81. Regarding the specific claim in advertising that use of the glasses "cuts out grey shadows * * * makes black objects stand out sharper, clearer," Dr. Richards testified:

The yellow glasses would make no difference in the seeing or contrast. It would just be harder to see.

This is because "since gray is not colored, there would be no advantage for any colored tint to improve seeing." (Tr. 246)

Respondents cite Dr. Wolf as supporting that advertising claim, but they misread the record. Dr. Wolf first characterized the statement as "true" but his explanation indicates a contrary answer. He stated:

If you have less light to see by and cut down on the brightness of the object, they must appear darker.

When he was asked whether this also would make the surroundings appear darker, he replied: "Everything, that applies to the whole field of vision." (Tr. 310)

82. Dr. Richards explained why many drivers might report favorably on the use of yellow lenses for driving. He stated:

There is a peculiar effect of yellow psychologically. Most people looking through yellow glasses seem to feel that the world is brighter. Many shadows in daylight are bluish; and, of course, they are intensified by yellow glass, so the average person has the feeling he is seeing better, but when you measure it you find the contrary. * * * (Tr. 291)

83. Dr. Wolf's opinion is that the Vislo glasses cannot in any way improve night driving vision. This is "For the simple reason that in night driving situations at the critical level any amount of light is necessary and if you reduce it, there is less light to see by." (Tr. 309)

Dr. Wolf does not think that the wearing of tinted lenses is the solution to the problem of glare in night driving. Tinted lenses do

not improve the ability to see at night, and accordingly there would be no advantage in wearing Vislo glasses for night driving. (Tr. 309-10)

84. In arguing, contrary to the consensus of the Government's witnesses, that the Vislo glasses will improve night driving vision by permitting the wearer to see more effectively, respondents rely on Dr. Cohen's testimony to the effect that he found no correlation between light loss and loss of visual acuity.

However, Dr. Cohen's broad generalization was ultimately qualified to the point that it does not carry any weight sufficient to overcome the evidence offered by the Government's witnesses. His office test of the glasses was shown to have no relationship to the highway lighting conditions specified by the Government witnesses.

85. Regarding the facts shown in CX 5 that the dark tint of the Vislo glasses transmits 83.8% of the light, meaning a light transmittance loss of 16.2%, Dr. Cohen expressed the opinion that "there would be no corresponding loss in visual acuity from a 16% transmission loss." (Tr. 368)

Dr. Cohen based this opinion primarily on an eye chart examination he made of himself in his own office. He said he was not able to determine that the Vislo glasses made any difference in his ability to read the test letters.

He reported similar results when using his normal sunglasses, which transmitted only 15% of the light and blacked out 85% of the light. (Tr. 368)

86. Dr. Cohen was then asked if it was his opinion that there is no relationship between the loss of light transmittance and the loss of visual acuity. His reply is revealing:

In the levels that we have been discuss[ing], I was not able to determine a visual acuity loss. I am sure if you had not light present, or such a minimum amount of light present, you wouldn't be able to distinguish these characters. There would be visual acuity loss. This would be a function of the fact that you could not see what was going on. (Tr. 369; cf. Tr. 106)

87. Dr. Cohen conceded on cross-examination that he has not actually tested these glasses on the highway at night himself, but based on his office test, and despite the answer quoted in Paragraph 86, he expressed the opinion that looking through the darkest portion of the Vislo glasses while driving at night would result in "no visual acuity loss." (Tr. 391)

88. Dr. Cohen would not use his sunglasses for driving at night. He "would not use an overall 85 per cent loss glass to reduce headlight glare." The sunglasses might reduce visual acuity at night "in extreme

conditions of lowering of light." (Tr. 392) Dr. Cohen then conceded that he was saying that he would not use his sunglasses because they would reduce the amount of light transmitted to his eye, but he said that this was "with one qualification." The qualification was:

That the reduction of light in the peripheral area would be sufficiently great with sunglasses to cause me to have difficulty with the periphery of my vision. I am not so sure I would have too much sensitivity [difficulty?] with the central portion of my vision. I cannot categorically say one way or the other. I have never used sunglasses at night. (Tr. 393)

He was questioned further on this matter by the hearing examiner, and his statement was quite narrow:

Sir, I limited my answer to correlation between the use of the Vislo glasses and visual acuity *in my office*, and correlation between the use of an 85 per cent cutoff of light of 15 per cent transmission of light in my sunglasses and my visual acuity *in my office*. * * *. (Tr. 417; emphasis added)

89. Thus, on analysis, the denial of visual acuity loss becomes meaningless for purposes of this proceeding.

90. It is significant that when, on cross-examination, he was asked about published research reports condemning the use of any type of night-driving lens because

Any such lens, whether colored, reflecting or polarizing, reduces the total light transmitted to the eye and renders the task of seeing at night more difficult,

Dr. Cohen said: "I agree with that statement completely as long as it refers to an overall uniformed tint lens." (Tr. 402-04)

However, the distinction drawn is not compelling. The principle appears applicable to the tinted portion of the Vislo lens.

91. Other than his own examination of the Vislo glasses, Dr. Cohen has no authority for his opinion that no loss of visual acuity results from up to 16 percent light transmittance loss involved in wearing the glasses. (Tr. 414) His opinion that Vislo glasses improve night driving vision is based essentially on the fact that "visual acuity and discriminatory details are enhanced by the use of a yellow filter." (Tr. 414; see also Tr. 370, 411-13, 416) He referred to the yellow light used in the ophthalmoscope, but the examiner finds the analogy unconvincing. Cf. Tr. 99-100, 291.

92. The hearing examiner rejects the proposed findings and the contentions of respondents relative to the significance of the fact that the Vislo glasses are coated by a secret process, two elements of which are chromium salt and silicon.

Although respondents, in their proposed findings, have linked a number of statements by the various witnesses that seem to lend

support to their contentions concerning the coating, the fact remains that whatever effect on light transmittance the coating on the Vislo lenses may have, that effect is reflected in the light transmittance report in the record as CX 5. Respondents' claims of additional virtues for the coating are unwarranted.

93. Respondents do not really oppose a finding that the Vislo glasses: "Will not allow all of the light to reach the eye of the wearer." They make no real contention that their glasses do allow all of the light to reach the eye of the wearer. As indicated previously, their position is that this statement represents an unreasonable reading of their claim that the Vislo lenses "do not eliminate light."

This defense having been rejected (Paragraph 18, *supra*), it remains only to indicate briefly the record basis for the finding that the glasses, in fact, will not allow all of the light to reach the eye of the wearer.

94. This finding is supported, first, by CX 5, the graph showing the light transmission curves for Vislo glasses. This test demonstrates as a physical fact that Vislo glasses will not allow all of the light to reach the eyes of the wearer. See Paragraphs 5-6, *supra*.

95. Other record references include Tr. 120 (Professor Marsh); Tr. 250 (Dr. Richards); Tr. 187-88, 197 (Dr. Fonda); and Tr. 307, 309, 312 (Dr. Wolf). Finally, respondents' own witness, Dr. Cohen, admitted that the glasses do eliminate light. (Tr. 411)

CONCLUSIONS

1. The Federal Trade Commission has jurisdiction of the subject matter of this proceeding and of the respondents.

2. The complaint herein states a cause of action, and this proceeding is in the public interest.

3. The statements and representations of respondents, as found herein, were and are false, misleading and deceptive in material respects and constituted and now constitute "false advertisements" as that term is defined in the Federal Trade Commission Act.

4. The acts and practices of respondents, as found herein, have had and may have the capacity and tendency to mislead and deceive members of the purchasing public and into the purchase of substantial quantities of respondents' products as a result.

5. The dissemination by respondents of the false advertisements, as found herein, constituted and now constitutes unfair and deceptive acts and practices in commerce in violation of Sections 5 and 12 of the Federal Trade Commission Act.

6. An order requiring respondents to cease and desist from the dissemination of such false advertisements is required in the public interest. With minor exceptions required by the record as made, the order

Final Order

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entered is in accordance with the form of order that the Commission said should issue if the facts were found to be as alleged in the complaint.

The preamble refers to Vislo glasses, rather than Rayex. In Paragraph 1(e) of the order, the word "eye" has been substituted for the term "field of vision" in accordance with the amendment of the complaint allowed at the initial hearing.

ORDER

It is ordered, That respondents Vislo Corporation, a corporation, and its officers, and Eugene A. Griffin, individually and as an officer of said corporation, and respondents' representatives, agents and employees, directly or through any corporate or other device, in connection with the offering for sale, sale or distribution of Vislo Night Glasses, or any other device of similar composition or possessing substantially similar properties, do forthwith cease and desist from directly or indirectly:

1. Disseminating, or causing to be disseminated any advertisement by means of the United States mails or by any means in commerce, as "commerce" is defined in the Federal Trade Commission Act, which advertisement represents, directly or by implication, that:

(a) The wearing of respondents' tinted glasses will eliminate or substantially reduce glare from the eyes of the wearer.

(b) The wearing of respondents' tinted glasses will enable the wearer to see in the dark.

(c) The wearing of respondents' tinted glasses will enable the wearer to see through fog glare.

(d) The wearing of respondents' tinted glasses will improve night driving vision.

(e) The wearing of respondents' tinted glasses will allow all the light to reach the eye of the wearer.

2. Disseminating, or causing to be disseminated, by any means, for the purpose of inducing, or which is likely to induce, directly or indirectly, the purchase of respondents' device in commerce, as "commerce" is defined in the Federal Trade Commission Act, any advertisement which contains the representations prohibited in Paragraph 1 hereof.

FINAL ORDER

Respondents have appealed from the initial decision of the hearing examiner. They have, however, waived oral argument. Upon examina-

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Complaint

tion of the record below and the appeal briefs and after full consideration of the issues of fact and law presented, the Commission has concluded that the initial decision is correct except that the initial decision shall be modified by striking the third paragraph of Finding 17 at pages 7 and 8 [p. 682, 683 herein] of the initial decision. Accordingly, and as so modified,

It is ordered, That the initial decision of the hearing examiner, including the findings, conclusions, and order, be, and hereby is, adopted as the decision of the Commission.

It is further ordered, That respondents shall, within sixty (60) days after service of the order herein upon them, file with the Commission a report in writing, signed by such respondents, setting forth in detail the manner and form of their compliance with the order to cease and desist.
