

DAVE BUSHNELL SAYS,
FREE!
TO
N.R.A. MEMBERS

14-PAGE BINOCULAR GUIDE
6-PAGE SCOPE BULLETIN

Men, you know guns! But in this era of super-accuracy... terrific hunting competition... it is also important that you understand scopes and binoculars. Stop being confused! Know before you buy! Send for these valuable, informative booklets today!

BUSHNELL
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Spacemasters
New 45° 60mm
SPOTTING SCOPE



Complete with
25x eyepiece
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No Fed. Tax

Check shots instantly, without changing position! End strain, fatigue. Finest achromatic, hard-coated lenses. Finger-tip control Prism Focusing Knob recessed in Prism-Housing. Retractable sun shade. Interchangeable eyepieces. Water, dustproof. Gray finish. Weight 43 oz. Length 16 1/4".

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How To Select
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what
791
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The Rifle 1885-1888
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Arms and the Man 1906-1923

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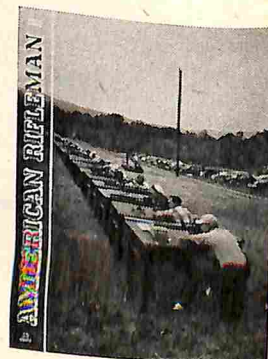
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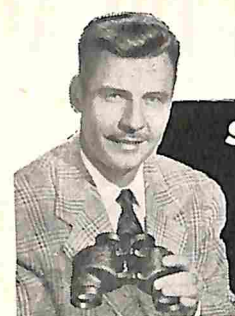
COVER

Fifty permanent benches make the fine bench-rest range on the cover, at the site of Fort Roberdeau, six miles out of Altoona, Pa., one of the largest in the country. Transparency is by Don Baker.



NRA Staff in the Service—T. W. Child, J. S. Rose

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Dave Bushnell says...

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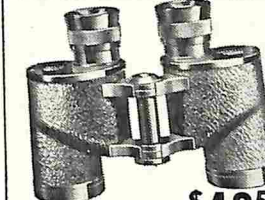
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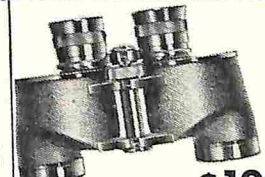
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New type Shur-Grip design, power packed, featherlight model! Magnesium body reduces wt. to 15 oz. Ultra-sharp, color corrected achromatic lenses. Field 400'. Size 4 1/2" x 6". All internal lenses and prisms hard coated. Superb value. Add \$4.00 if center focus desired. 6x30 Same as above (445' field) \$39.50*

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Send me postpaid: ☐ 7 x 35 Mag. ☐ Broadfield ☐ Rangemaster ☐ Individual Focus
☐ 7 x 35 Alum. ☐ 7X Palm-Pocket ☐ 9 x 35MM ☐ Center Focus
All prices include Leather Case & Straps.

Enclosed please find \$ Check ☐ M.O. ☐
Am adding usual 20% Fed. Tax (\$2.00 deposit for C.O.D.'s)

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☐ Check here if you wish a free copy of "How to Select Binoculars."

WHAT MAKES A BINOCULAR "TICK"?



A customer put this question to me the other day: "Dave, can you explain in layman's language just how binoculars work? Remember, I don't know a thing about optics." "Well, I'll try," I replied. "To put it simply, each barrel of a binocular consists of three basic components: objective lens, prisms, and eyepiece."

The objective lens forms a small, upside-down image within the binocular of whatever object it is aimed at."

"Is it the same as the image formed on the film in my camera?" Fred asked.

"Yes, except that not having film in your binocular, this picture is suspended in the air (an aerial image), just as it would in your camera if there were no film in it."

"But," Fred interjected, "without the film, how can you 'catch' the picture?"

"That's easy. Just hold a magnifying glass behind this suspended image, and there it is! Now you have turned your camera into a telescope."

"I'll be doggoned," declared Fred. "Just think of the binocular eyepiece as a magnifier, or microscope, focused on this small 'aerial' image. It enlarges it to any size desired: 6X, 7X, 8X, etc."

"Okay," Fred cut in. "I get the idea. But what about the prisms?"

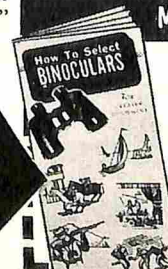
"Well, the image formed by the objective lens is upside down, and reversed from left to right. Since we're not used to looking at things while standing on our heads, we must correct it. This is done by using two 90-degree prisms at right angles to each other in each barrel. As the light rays carrying the view pass back and forth through these two prisms, the image is erected, and placed in its natural position. Prisms have two other functions, but we'll go into that later."

"Gosh, I understand it now. Here I've been using binoculars all my life, and never had the slightest idea how the darned things worked."

D. Bushnell
N.R.A. Life Member

FREE BOOK!
"HOW TO SELECT BINOCULARS"

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AMERICAN RIFLEMAN

APRIL
1953



2P 1-27-53 EPL Jan 55 R
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Minneapolis, Minn.