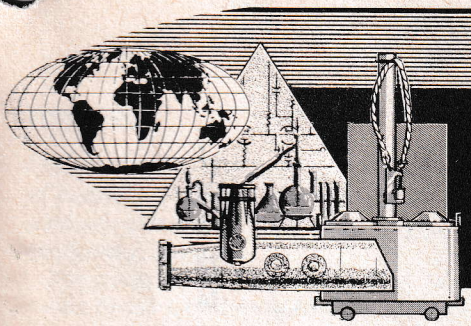
Corrected f/Trouble Shooter 1-63 10-1-63RC

No. 4-61



mine and depth-charge

THE TROUBLESHOOTER

- Arming-Wire Duds
- Component Repackaging
- D-C Pistol Hold-ster

THE OFFICIAL JOURNAL OF THE *RUDMINDE* PROGRAM

in this issue . . .

THE TROUBLESHOOTER

mine and depth charge

Published by the Naval Mine Engineering Facility, Yorktown, Virginia.

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REGULAR FEATURES

ARTICLES

COVER PHOTO: Our thanks to Ensign L.M.Stryker, Mines Officer at Okinawa, for sending this action shot of Z.G.Martin MN2 and R. E. Moulton MN2 swabbing out a search-coil tube. If you have a photo of interest to minemen, send it in. Any suitable shot stands a good chance of making a T-Shooter cover.

Rudminde is a world-wide troubleshooting campaign designed to achieve and maintain a high level of undersea warfare readiness through the discovery and correction of material defects, through refinement of weapon design, and through encouragement of the unique knowledge and skills demanded of highly specialized segments of the U.S. Navy and Coast Guard. The basic instrument of the program is Navord Form 2776—"Report of Unsatisfactory or Defective Mines, Depth-Charges, or Associated Equipment." Anyone who encounters problems with these weapons is encouraged to report them to the Naval Mine Engineering Facility using this Form, as prescribed in NAVORD INST 8500.7.

Troubleshooter is published quarterly by the Naval Mine Engineering Facility's Publications Division and printed by DPPO-5ND using funds approved by the Director, Bureau of the Budget, on 10 November 1958. Contributions, questions, address changes, and requests for distribution should be addressed to: Editor, The Troubleshooter, Naval Mine Engineering Facility (Ts2), U.S. Naval Weapons Station, Yorktown, Virginia.

THE OFFICIAL JOURNAL OF THE *RUDMINDE* PROGRAM

SOUNDINGS

The Changing Scene In Undersea Warfare

FRONTIERS

COLD FEAT: The Navy is investigating the possibility of freezing a ship in the Arctic Ocean ice pack to create a secure platform for carrying on scientific tests and conducting research.

The program was activated at the request of the Underwater Sound Laboratory in New London, Conn., with the Bureau of Ships and Docks conducting a study to find out what type of ship would best serve the purpose. Such a ship would in effect become a floating Little America, but would have several advantages over stations now established on natural ice islands. Not only would many hazards, one of which is disintegration, be eliminated, but the vessel would carry more sophisticated laboratory equipment and furnish more adequate living quarters. This would better attract senior scientists.

The ship would also have a propulsion system on a standby basis to take advantage of certain ice movements and maneuver itself into more favorable circulation areas.

Some of the scientific investigations proposed for the venture are:

- Sea-ice studies including physical properties, behavior, drift patterns, and forecasting techniques.
- Physical and biological oceanography.
- Seismic, magnetic, and gravimetric characteristics of the Arctic basin.
- Standard surface and upper-air meteorology.
- Micrometeorology; radiation budget of sea ice.
- Aurora and other ionospheric investigations.
- Electro-magnetic phenomena.
- Under-ice mine and torpedo studies.

HELLO OUT THERE! The Navy will convert a Liberty ship now serving with the MSTS to a satellite communications system using high-altitude hovering satellites.

Conversion will consist of installing additional berthing, messing, shop and office spaces, and ship-to-shore communications, also additional electric power generating equipment, a helicopter landing platform, and aerological facilities.

Direction is by the Army Advent Management Agency. Conversion is expected to be completed by 1 April 1962.

STRATA DATA: The Navy is supporting Project Mohole, a program engaged in drilling into the earth's crust under the seas.

During recent drillings off California, cores were obtained from 750 feet below the ocean floor that gave information on geological conditions a million years ago. Operations to begin soon off Guadalupe Island, Mexico, will drill deeper and may bring up fossils and other materials dating back one hundred million years.

The Navy's interest in Project Mohole is to gain vital oceanographic data. Technical Direction is by the American Miscellaneous Society Committee of the National Academy of Sciences - National Research Council.

IT'S DONE WITH MIRRORS: A 3-D camera that can take up to 15,000 frames a second—film speed about 127 miles per hour—has been designed by Benson-Lehner Corp. for the Naval Weapons Laboratory.

The B-L camera has two tilted mirrors on a track out front to provide images for a pair of lenses whereby the 35-mm film receives side-by-side 16-mm pictures for a special slow-motion 3-D projector with a maximum speed of 20 frames per second.

Due to the camera's ability to accelerate from a standstill to maximum speed in a bit over half a second, 80 percent of a 400-ft film catches the fast pictures. This is quite a bit better than has been considered acceptable for non-3-D high-speed equipment.

One probable use for such gear: photographing explosions.

RADIATION RESEARCH

DEEP DATA: A new ultra-sensitive measuring device called DUNC (deep underwater nuclear counting) will be used by the Navy for analysis of natural radiation occuring in the sea. A cylinder-shaped detector about three feet long and six inches in diameter lowered into the sea produces electrical signals when struck by gamma and cosmic rays. These signals are transmitted to a shipboard analyzer by means of a mile-long supporting cable. DUNC is so sensitive it can detect a single atom of radiation in a billion molecules of water.

Designed by the Nuclear Physics Div. of the Naval Ordnance Laboratory at Silver Springs, Md., DUNC can collect data formerly obtainable only by taking samples of the sea and analyzing them in the laboratory.

The Navy has a variety of uses for DUNC, including tracer studies of ocean currents and measurements of radioactive waste disposal in the sea.

FILM HERO: Preliminary arrangements have been made with the Naval Photographic Center and BUWEPS by the Naval Weapons Lab, Dahlgren, Va., to produce a film delineating the hazards of exposing ordnance to electromagnetic radiation. One purpose is to acquaint ships' personnel with the extent of explosive hazards when various ordnance items are exposed to radio frequencies generated by high-powered radar or radio transmitters.

The film will be based on results of a continuing project (HERO) which has already tested many ordnance items including mines. Not yet tested but slated for early attention: ASROC

SUBSTITUTION

SUB SUB: Navy is getting a fleet of new "subs" that look very much like torpedoes. Designed as submarine target simulators, 11 feet long, 10 inches in diameter, 344 pounds, and able to travel up to 10 knots for two hours on rechargeable batteries, they can dive, turn, maneuver, and produce engine noises and sonar signals quite like the real thing.

ALL SHIPS: If you have received an ordnance COSAL be sure to discard your NAVORD LIST 00 and use Part I (Index of installed and portable equipments) of the ordnance COSAL to verify on-board armament before overhaul.

According to OSO, equipment verification should be made 180 to 120 days before a scheduled overhaul, and should be made with the utmost care since any error in the verification could result in a similar error in your allowance. OSO Field Notice 4441 of 3 Apr 61 applies.

STOP, LOOK, AND LISTEN

SHOO! Mr. Shark, a natural submarine menace to those who go down to the sea in bikinis or otherwise, is being banned with the help of the Coast Guard from about 2400 feet of the three and a half mile waterfront of Long Island's popular Long Beach.

When a shark alert is sounded, lifeguards "shark-proof" the beach by anchoring canisters outside the swimming area. The canisters discharge a blue-black chemical that sharks shy away from, the same Navy-developed "octopus ink" with which Commander Shepard was treated when he made his space ride down the South Atlantic range last May.

NAVY TV: Television stations across the country are carrying a new "Film of the Week" series presented by the Navy and locally sponsored by Navy recruiting stations.

The purpose of the films is to inform the public on Navy activities and progress.

First of the 13 week series is Ring of Valor, a story of the Naval Academy at Anapolis. Final show of the run will be the choice of the favorite in the local recruiters' film libraries.

PALPITATIONS: According to Noctilio Leporinus, watcha gotta do, man, is increase the beat!

The man in this case is Professor D. H. Griffin of Harvard who noticed (observing Little Nocky in Panama and Trinidad with the aid of an ultrasonic detector and a small tape recorder) that this fishcatching tropical bat did in fact often raise its (pulse) beat just before dipping to the surface of the water to snatch a seafood supper with its claws.

But how does Nocky know a fish is there? This question was enough to get Brother Bat enrolled in the biological orientation program sponsored by the Office of Naval Research.

Applied on a larger scale, it is hoped that the secrets of Nocky's unique fish-finding facility may solve some sticky communication problems.

ADDITIONS AND TRANSFER

ASW ESCORT SHIP: Navy is building an experimental escort research ship (AGDE) to develop more effective equipment and tactics similar to those developed for subsurface ships by the submarine Albacore.

Significant advances in anti-submarine warfare (ASW) surface ships are expected to result from experimental development carried out in the AGDE.

The ship will be fitted with the latest long-range sonar and anti-submarine weapons. Other weapons, devices, and equipment, including propulsion systems, may be installed. Alterations may be developed as required to improve ASW capabilities in escort vessels.

The AGDE will be capable of conducting research tests in anti-submarine warfare operations with hunter-killer groups supporting amphibious forces, or providing escort for military convoys.

PRESIDENTS TO PRIVATEER: The names of three Presidents, a Revolutionary War hero, a Continental Navy hero and two Navy heroes of modern times have been chosen for three new submarines and three new destroyer-type ships.

The fleet ballistic-missile submarine John Adams is named for the second President of the United States and his son, John Quincy Adams, the sixth President.

Another submarine bears the name of James Monroe, fifth President. Nathan Hale, who on the scaffold said, "I only regret that I have but one life to give for my country," is the namesake of the third missile submarine.

Gustavas Conyngham was a privateer captain before being commissioned in the Continental Navy in 1777. His name will be borne by a guided-missile destroyer to be launched April 1, 1962. During the Revolutionary War, Capt. Conyngham was taken prisoner twice and escaped both times.

The guided-missile destroyer Byrd, to be launched on Feb. 1, 1962, is named for Rear Adm. Richard E. Byrd, famed Arctic explorer. Adm. Byrd was awarded the Medal of Honor for his 1926 flight over the North Pole.

A guided-missile frigate being launched Jan. 6, 1962, is named for Adm. Richmond K. Turner, who was Commander, Amphibious Forces, Pacific, from July 1942 to November 1945.

RESERVISTS GET SHIPS: Five radar picket ships of the Pacific Fleet were scheduled for transfer to the Naval Reserve training program in September, increasing their capabilities in early-warning and antisubmarine warfare.

The ships will hail from west-coast ports. Naval Reservists from each port will receive their training on board.

RUDMINDE REPORT TO THE FLEET

What's Been Reported? *What's Being Done?*

It happened at Oahu

It's predictable. Start publishing a book like ye T-Shooter and you'd better be ready for the barbed arrows that are going to be winging your way. It's healthy, too. All you need is a strong constitution and enough cold detachment to know when to "buy" and when to ignore . . . when to hold out for what your instinct tells you is right.

But what you don't expect if you're dry behind your editorial ears is for anyone to go out of their way to send you bouquets. And that's exactly what the men at NAD/Oahu did and they made us feel so good we bought some decent cigars, slacked off the "stimulants," and have been walking around on a cloud ever since.

Actually we were already pretty happy, thanks to our readers' response via those little green Like'n'Gripe sheets that were stuffed in T-Shooter 3-61 for you to fill out and return. Most backed our editorial policy to the hilt, and those who didn't suggested ideas that we hope will make T-Shooter a better book for all concerned. But whereas the number received from certain activities was somewhat less than the number sent out, the men at Oahu used up all they had, then printed up duplicate blank forms so that every last man could have his say!

Later—when more sheets have come in—we'll try to clue you on what some of them have had to say. Meanwhile we want to state that this was the finest compliment T-Shooter has ever had. It's the most meaningful compliment your editor has had in his many years in this backbiting biz.

—Thanks.

It happens everywhere

One of the nastiest things that can happen to a loyal Rudminder is to get chewed out by his CO for a security violation. Lately it's been happening altogether too often.

How? You fill out a Rudminde. It's about a clock starter. It gets involved with a mine that's classified confidential or an OP that's confidential. So you mark your Rudminde confidential, stash it in an envelope, and mail it in. Then it reaches our mail room and that's where it hits the proverbial fan.

The Navy Security Manual is simple and to the point: Confidential letters etc. go in an addressed envelope marked CONFIDENTIAL, and that envelope gets sealed inside a plain, unclassified, addressed and return-addressed envelope for mailing. The orders in Navy mail rooms are also simple and to the point: Report security violations to a security officer at once. His orders are clear too: Fill out an OPNAV Form 5511-8, Security Violation Notice, and mail same post haste to the violator's command. You know the story from there.

The moral, of course, is clear. Use the double envelope deal for classified Rudmindes. Far better, though, would be to consider whether the Rudminde is really confidential. The one just described, on the clock starter, obviously was not.

Why? Every man in every navy in the world who's ever worked with any navy's mines knows most of 'em use clock starters, and that's that.

Before you classify, then, apply this simple rule of thumb. Ask yourself: Does my Rudminde reveal any operational characteristic of a classified weapon? If it does—if from it a person could learn a weapon's sterilizing time, delay time, armed time, interlook periods, overall cycling time, or the amount of pressure or kind of magnetic fields to which it is designed to respond—it's classified. Otherwise, as will be the case with 99 out of 100 Rudmindes, it's not.

Simple? When you consider this rule, it really is. You'll find it being applied in new OPs before long, whereby many of the shop instruction sheets will be labeled unclassified. You'll also find it will simplify and speed the handling of your Rudmindes.

It could save a chewing out from your CO, too.

ARE YOU THERE?

DO YOU READ T-Shooter regularly? Did you get No. 3-61? Are you reading this page? Then what are you waiting for?

In our last issue, No. 3-61, there were some green reply forms bound in each copy. How these things are filled out doesn't bother us. We're just as happy to get the ones that say we're all wet as we are with the ones that say we're doing okay. We don't even care if you sign them or not. What hurts is when you decide it isn't worth the five minutes it takes to check off the blanks, stash one in an envelope, and mail it in.

Hurts who? Hurts you! Those forms mean much more than your vote for the kind of mine and depth-charge troubleshooting pub you think you need. The mere number we get can help convince the right people that T-Shooter deserves to be kept alive and kicking. And T-Shooter—to some pretty high brass—is a most significant convincer that the mine force itself is very much alive and kicking.

So how's about it? If you didn't send one in how's about doing it right now before you forget? If you did send one in, how's about getting a mate who didn't to get on the stick?

We need to know . . . are you there?

Millie Amps' BRIEFS

Santa Claus cometh

In T-Shooter 3-61 my piece "Heaven knows I try" mentioned that prices of several pieces of mine gear had been reduced as a result of a letter from L. M. Stryker, Mines Officer at Navy 3867, to OSO. Some of you men have since asked me to name the items and the new prices.

No changes have been issued yet, but a price-change bulletin scheduled for issue in December is expected to contain the new prices we show in the box on the next page. Not only does this give you a preview of some price changes (14 down, 2 up) this new list also gives you some new FSNs to fill out the vacancies (not yet assigned) on page 18 of your 2-60 T-Shooter.

Pencils, everybody!

As you were

BUWEPS has not authorized replacement of clock starters manufactured under NOrd 11179 after all, so change your copy of T-Shooter 4-60, item 6 on page 4, and keep on rejecting only those found unsatisfactory.

—And they say women change their minds!

Alas, poor Yorik-town!

CWO J. S. Lorenzen, reports a fiber-washer-ordering workout that takes the prize for price changing. In March 1960 he received these Z5330-093-0668 washers at $0.01 each. This jibed with T-Shooter 2-60's Bill of Material for Mine Mk 25-2.

When he found the price raised to $0.04 in T-Shooter 4-60's Bill of Materials for Mine Mk 10-3 Mr. Lorenzen paid the four cents each without complaint, feeling it made more sense than the $0.40 price in the new OD 12067-G. But before he got his washers he was informed that the price each was neither $0.04 nor $0.40, but an unbelievable $0.70 per!

MN1 J. D. Stokes also Rudminded us that he had arrived via a somewhat different route at the same price of $0.70. Projecting his needs J. D. pointed out that an allowance of these fiber washers for his outfit would have cost $7000.00!

The result: whether you call it washer or bushing or packing, fibre or fiber, OSO has now got the price down to an earthy and acceptable $0.02.

So pay no more, men. Z5330-093-0668 is for 2 cents plain!

Fed. Stock No.	Drawing No.	NAVORD List	Item	Was	Will be
Z1350-038-7394	1170891	24036	Cap, mooring-line tube	$ 7.20	$ 2.30
Z1350-038-7395	1170892	24036	Bar, mooring-line retainer	.70	.32
Z5310-596-8754	12-Z-3055-38	24036	Washer, flat, stl, 5/16"	.08	.02*
Z1350-038-7226	1236441	24036	Housing Assy, cutter	21.00	17.00
Z1350-038-7225	1170889	24036	Cap, cutter	2.00	1.60
Z1350-038-7224	1170890	24036	Cutter	3.60	1.40
Z1350-038-7895	1170885	24036	Tag, warning (for hold-down loop clamp)	.20	.10
Z5340-550-8026	AN742-5, 12-Z-7003-6046	24036	Clamp, hold-down loop	1.60	.85
Z1350-524-3211	1164367	23922	Tag, warning (for arming-wire safety lock)	.75	.05
Z1350-025-0899	343297-1, 541600, 864219-2	23922	Collar, Extender (for EX Mk 14)	1.80	.80
Z5305-639-4826	43-S-59050-1020	23922	Screw	.10	.05
Z5310-638-6779	12-Z-2009-1, 12-Z-2009-6	23922	Nut, wing	.12	.02
Z1350-038-7846	383622-2	23922	Window, plastic (for TB-10-0)	2.70	3.70
Z1350-038-6400	363065-2, 415905	OD7306	Bulkhead, SR can (for Mine Mk 36-1)	.36	3.60

*This 75% reduction will be nice. But if you want a real bargain right now order G5310-194-9194 from General Stores and get the identical item at 30 cents a pound. That's about 195 washers! Incidentally, this is the right number for T-Shooter 2-60 item 19 on page 18, 11/16" OD washers instead of the 9/16" ones that were listed.

Some like it cold

If you think it's just a matter of taste—about batteries being shipped and stored refrigerated—or if you didn't happen to read my "Batteries are like horseradish" in T-SHOOTER 1-61, here's a bit of SOP from a 1 March 1961 letter sent out by the Chief of BUWEPS:

"...it is requested that all shipments of subject (mine and depth-charge) batteries be made in refrigerated protective service in accordance instructions contained in the Military Interdepartmental Procurement Requests (MIPR) regardless of weight, distance, or transportation cost factors. This procedure shall be considered general policy for all future battery shipments procured for Navy. It is further requested that all inquiries relative to the subject shipments be directed to the Chief, Bureau of Naval Weapons." (FSSC).

If you're curious as to why all the fuss about refrigerating these batteries, a feature in T-SHOOTER 1-59 will give you lots of good reasons.

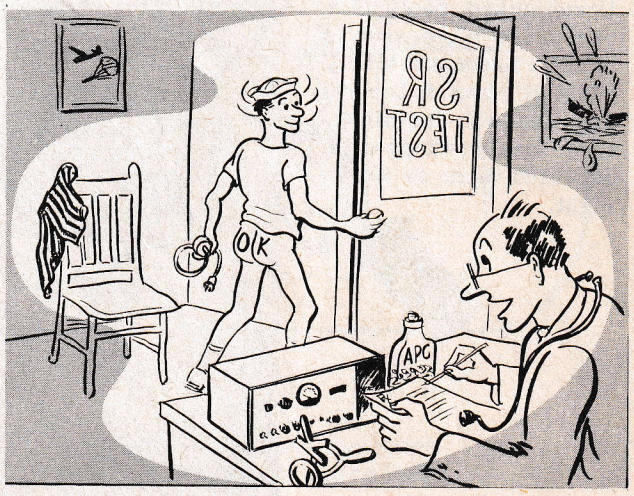
Put those shorts back on, puh-leeze!

So who should Rudminde us about sensitrol relays but S. R. himself . . .S. R. Stephens, that is, MN3 of Navy 3835. And no sooner had he suggested we tell more about the proper use of shorting bars on SRs than Ken Harder, MN1 at Navy 3923 reported a bunch of Code 0 SR-7s that they had to consign to Code 9 because needle set prevented their testing okay.

Unfortunately these SR external shorts seem to have been considered unmentionables because neither OP 1452's second nor its third (preliminary) revisions mention the shorting bar DWG 1402216 used to jumper the black and yellow moving-coil leads on SR-6-1s and SR-7-0s and 1s . . . or the Weston shorting, a circular coiled spring that comes with the AN connector and fits inside the connector's pins to jumper them when required. These shorting devices are supposed to be installed on the SRs to help keep the relay's needles centered, thus minimizing any change of sensitivity due to the needle set that would otherwise occur because of the needle resting married to one of the contacts during storage or transportation.

Naturally these external shorts must be removed before testing or before mine assembly like the tags on them tell you. But don't forget to reinstall the shorts and their tags if you intend to repackage and ship or store the SR. The trick, of course, is to make sure the relay's needle is centered by touching battery leads (12 volts DC, either polarity) to the blue and light blue leads on the SR-6-1s and 7-0s and 1s, or the G and F pins in the AN connector on the SR-7-2s.

Millie Amps



LET'S STOP PLANTING DUDS

WE SAID IT back in T-Shooter 1-58. Now people are forgetting and we're getting more and more reports of air-laid duds caused by installing arming wires wrong.

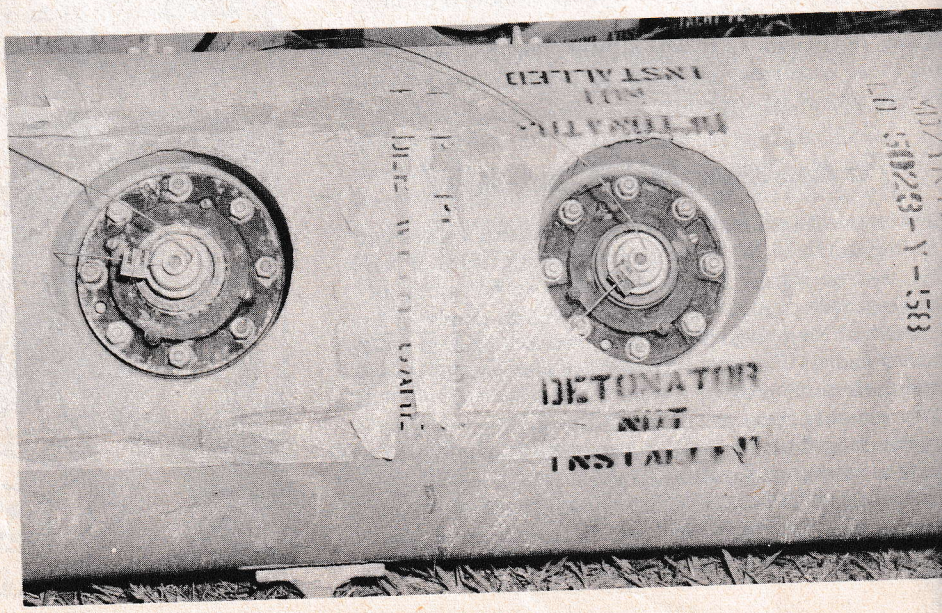
So what's the answer? Simple. Follow the instructions. And there's the rub!

Who's on first?

For instructions, AOs in some places report they're referring to old mine-assembly OPs. Don't! For the most part the mine-assembly manuals are wrong on how to install arming wires.

Then there's another group of readers who received copies of NOL's preliminary edition to OP 1118 2nd Rev back in 1959 (this is also CO-NAVAER 11-80-501). "Is it okay to use?" they ask. The answer is: yes if you've got it. If you haven't, though, see your chaplain. All available copies were distributed upon publication, and that's that.

Next are the men who ask about the loading instructio in the encyclopedic aircraft manuals. These, we think, are correct as far as they go. But they're not assigned to NMEF cog, so we at NMEF are not responsible for them and have never had occasion to really check 'em o against our mines. Their main fault, based on the littl we've seen of them, is that they are not sufficiently de- tailed and complete on this particular job.



Unretouched photo of a recovered mine, sent in by Billy Lawson of MDAU 0325. It's hard to believe the men who installed these arming wires ever expected them to work right.

where we are now?

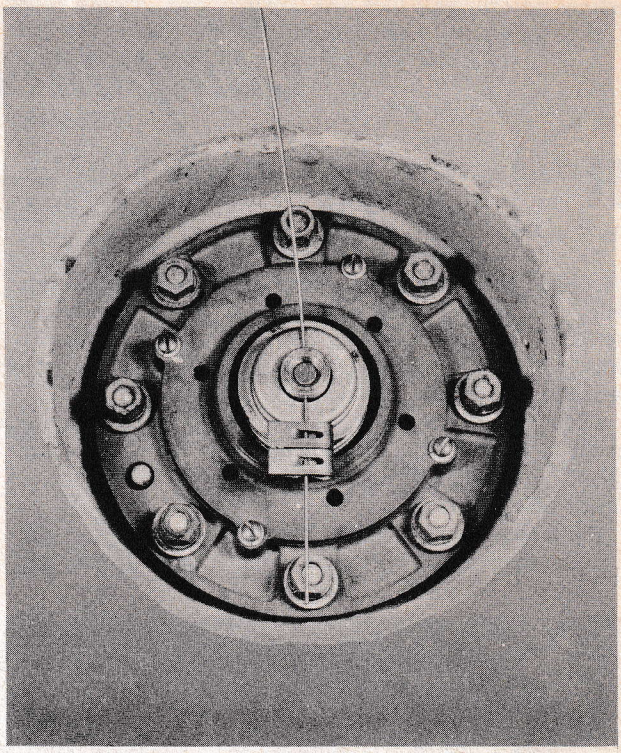
Being alerted by the number of people doing the job wrong, not knowing how many have lost their copies of old T-Shooter 1-58, and not knowing when official copies of OP 1118 or something to replace it may be in print, the best we can do is repeat the right rundown on the installation of arming wires in aircraft-laid mines:

▶ Never—repeat NEVER—install the nut on the extender's or clock starter's piston rod without using the special tool that automatically insures correct adjustment. Order Wrench, Knurled, Arming-Wire Safety-Lock, G1350-093-0971 if you don't have plenty on hand.

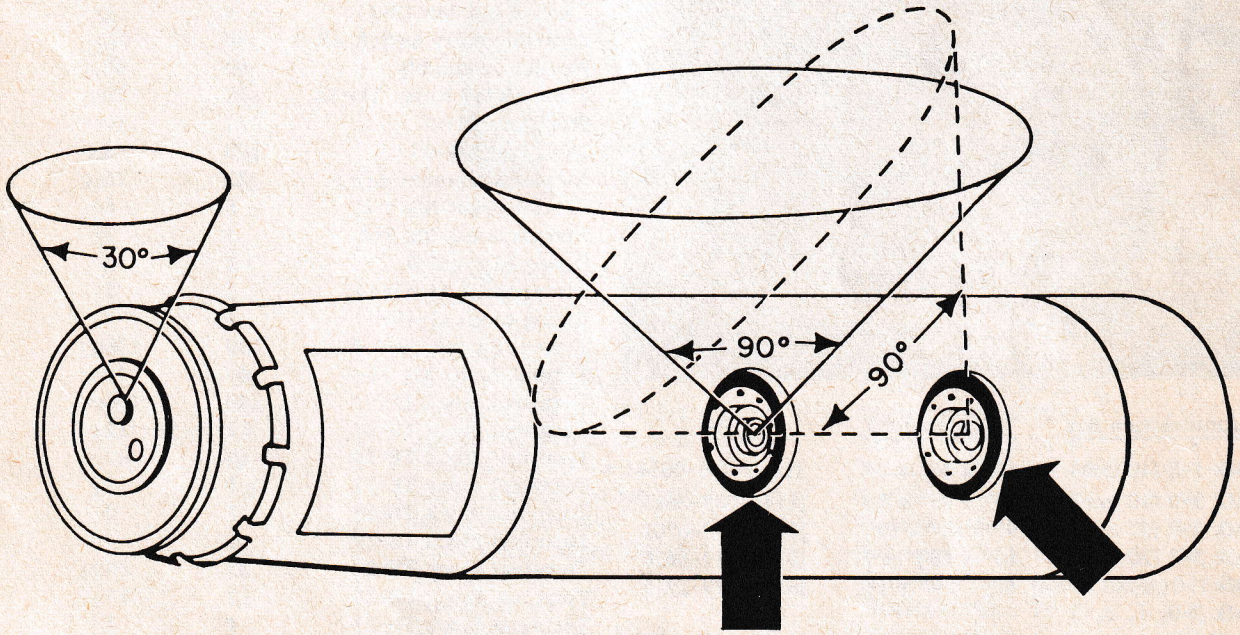
▶ When you lead the arming wire from the plane's arming solenoid to the mine, make sure it's not leading off at some crazy angle. The best lead—if you could arrange it—would be straight up and down. When you can't manage this, run it so it'll fall inside one of the cones sketched in the illustration at the bottom of this page.

▶ Clip off the end of the arming wire close to the far side of the well about as shown in the illustration at the right, then put on TWO fahnestock clips. Put 'em on "upside-down" like we show . . . NOT the way they're shown in most OPs.

"That's simple," you say? Sure is! But why not play it doubly safe and help ol' Sam get a little more mileage out of all those bucks he shells out? Why not tear out this page and keep it in your hip pocket for reference when you're out there doing the job?



Fahnestock clips must be installed in pairs "upside-down" as shown here. Lashup won't work right when they're installed any other way.



Paths of arming wires from mine to plane should not lead outside the cones drawn here. Heavy arrows point angle of the wire through the safety lock.

Let's talk about . . .

Component Repackaging

REPACKAGING mine materiel after test, inspection, etc. would be a cinch if you could simply put things back in the containers they came in.

But what to do at an advance base, say, with all those parts and components that come in non-reusable containers, or in bulk containers that are no longer anywhere to be found when gear is being returned to shelf storage? What's to do about material that requires moisture-proof sealing, desiccants, cushioning?

As is true so often in the mine business, the men in some shops have refused to sit back and grow old with the problem. And the procurement dough they're saving for Uncle really adds up!

The fact remains, though, that there are plenty of activities where this is not true. What's needed, they say, is something in writing that tells how and with what. So here goes:

Try ammo & rocket containers

There are a number of repackaging possibilities that can ease your inventory and issue problems. First and simplest is to seal the item back in the container it came in, throwing in fresh air dryers as required. We'll talk about sealing materials and desiccants in a minute, but the main problem at this point is what to use if the original container has already been used for something else, or has been destroyed, or wasn't designed to be used again in the first place.

The handiest, most readily available, and most rugged items for your purpose are metal ammo boxes and rocket

Ammunition Box	Dimensions	FSN
Mk 1-0 (40 mm)	12" x 12" x 22"	J8140-039-0684
Mk 2-0 (40 mm)	12" x 12" x 12"	J8140-039-0685
Mk 2-0 (3" ctg case)	9" x 13" x 18"	J8140-039-0701
Mk 3-3 (20 mm)	13" x 18½" x 9½"	J8140-039-0610
Mk 1-0 (small arms)	17½" x 9" x 14"	J8140-039-2915
Mk 1-0, 1, 2, 3 (1.10)	14" x 12½" x 12½"	J8140-039-0695

Component*	Quantities that can be stor: Mk 1-0 (40 mm)	Mk 2-0 (40 mm)	Mk (3" ctg
Arming Cell Mk 2	250	250	15
Clock Delay Mech	27	10	1
Timing Element Mk 1-0	400	220	11
Hydrostatic Switch HS-4	450	550	3
Sensitivity Switch Mk 3-0	25	30	
Sensitivity Switch Mk 3-1	20	20	
Sensitivity Switch Mk 5-1	75	60	3
Control Box Mk 13-1	4	6	
Anti-Recovery Switch AR-1	40	90	4
Bleeder Assembly	60	90	5
Time-Delay Relay TD-16	70	70	5
Sterilizer SD-4	12	16	1
Sterilizer Mk-11	100	75	7
Actuation Counter SE-3	75	75	3
Circuit Break Mk 1-0	6	6	
Circuit Break Mk 2-1	3	3	
Firing Mech M-9	2	2	
Firing Mech M-11-4	2	2	
Firing Mech M-19-0	4	4	
Termal Switch TS-1-2	130	130	3
Termal Relay Mk 24-0	40	40	1
Terminal Block TB-7	140	100	9
Terminal Block TB-8	12	12	
Terminal Block TB-10	40	40	1
Terminal Block TB-11	3	3	
Terminal Block TB-18	2	2	
Terminal Block TB-19	5		
Terminal Block TB-20	25	50	1
Terminal Block TB-24	12	12	
Terminal Block TB-27	4	4	
Firing Condensers	120	120	

ntainers. We hardly need to tell you where to find these how to latch onto them, and they'll be hard to beat for storing both large and small components and parts. Best of all, you can stack a slew of them in a small storage space.

Along with a run-down on many kinds of items you can get into these containers, we've included FSNs that you can use to order new ones. They cost from $3.70 to $16.50 each.

AN cans are good, too

For repackaging larger and heavier components to protect them from physical damage and moisture, AN cans are about your best bet. These cans get appropriated for yea many other purposes so act fast when you find one or—like ammo and rocket boxes—order new ones if you can't get them any other way. See page 10 for possible uses.

Paint cans without paint

For tidy top-shelf storage and to tuck into dinky, undersized spaces, unused paint cans are the ticket. They are easily closed, self-sealing, and hold a surprising number of small items. They're inexpensive too—only 12 to 48 cents each. Page 11 shows what they will hold.

Inside stuff

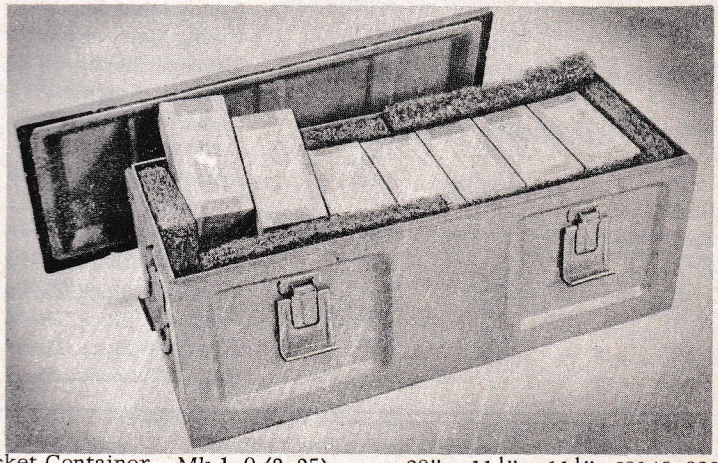
When you're repackaging fragile items—and that includes most mine components—you should line the larger containers with cushioning material to protect them from handling shock and keep them from shifting. Also use it for separators to keep items from knocking against each other. Be sure, though, to use it between wrapped items, not inside the wrappings where it may tend to leach out lubricants or shed dust.

Rubberized horsehair is the best available cushioning for this purpose because it is cleanest, absorbs least moisture, and still has excellent cushioning characteristics. It comes in 72 x 24-inch sheets in thicknesses of 3/4-inch (G8135-132-9569 @ $.73) and 1-inch (G8135-132-9568 @ $1.15).

Cellulose wadding (G8135-209-7603 @ $2.50) comes in 60-foot rolls 20 inches wide and 1 inch thick. It is cheap-

in each ammunition box

3-3 mm)	Mk 1-0 (Small arms)	Mk 1-0,1, 2,3 (1.10)
210	180	170
12	16	9
50	110	150
5[illegible]	400	400
[illegible]	30	30
8	4	10
45	32	40
2	3	2
48	32	35
80	70	90
70	50	60
8	12	12
70	60	60
35	30	40
1	2	2
3	1	
1		1
		1
1	1	
30	50	
15	10	20
90	90	80
7	4	6
12	10	20
2	2	2
3	4	
18	12	16
7	4	6
3	2	2
30	75	80



Rocket Container Mk 1-0 (2.25) 29" x 11½" x 11½" J8140-038-9477

Component*	Quantity	Component*	Quantity
Arming Cell Mk 2	250	Circuit Break Mk 2-1	1
Clock-Delay Mech	18	Firing Mech M-9	3
Timing Element, Mk 1-0	200	Firing Mech M-11-4	2
Hydrostatic Switch HS-4	650	Thermal Switch TS-1-2	60
Sensitivity Switch Mk 3-0	30	Thermal Relay Mk 24-0	25
Sensitivity Switch Mk 3-1	8	Terminal Block TB-7	130
Sensitivity Switch Mk 5-1	60	Terminal Block TB-8	5
Control Box Mk 13-1	4	Terminal Block TB-10	25
Anti-Recovery Switch AR-1	30	Terminal Block TB-11	4
Bleeder Assembly	90	Terminal Block TB-19	10
Time-Delay Relay TD-16	75	Terminal Block TB-20	30
Sterilizer SD-4	20	Terminal Block TB-24	5
Sterilizer Mk 11	70	Terminal Block TB-27	4
Actuation Counter SE-3	50	Firing Condenser	160
Circuit Break Mk 1-0	2		

*Only components normally packaged in non-reusable containers are listed.

AN Can No.	Inside Diameter	Inside Height
AN 8024-1	10½"	12-3/4"
AN 8025-1	10½"	16½"
AN 8025-2	10½"	18½"
AN 8026-1 (FSN Z8110-611-8503)	13-3/4"	14"
AN 8026-2	13-3/4"	19½"
AN 8027-1	15½"	19-3/4"
AN 8027-2	15½"	23-3/4"
LD 479356	22½"	20"

Component	Quantities that can be stored 8024-1	8025-1	8025-2	8026-1	802
Arming Cell Mk 2	55	72	75	100	1
Clock-Delay Mechs	12	6	8	10	
Timing Element Mk 1-0	70	90	100	80	2
Hydrostatic Switch HS-4	125	160	175	140	2
Sensitivity Switch Mk 3-0	40	12	12	10	
Sensitivity Switch Mk 3-1	10	14	15	15	
Sensitivity Switch Mk 5-1	59	30	20	12	
Control Box Mk 13-1	3	3	3	3	
Control Box Mk 15-0			3	4	
Anti-Recovery Switch AR-1	40	30	20	25	
Bleeder Assembly	40	35	20	40	
Time-Delay Relay TD-16	75	50	35	50	
Sterilizer SD-4	9	15	15	10	
Sterilizer Mk-11	24	25	36	60	
Actuation Counter SE-3	12	15	20	30	
Circuit Break Mk 1-0	2	2	2	4	
Circuit Break Mk 2-1		2	2	5	
Firing Mech M-11-4	1	1	1	1	
Firing Mech M-11-5	1	1	1	1	
Firing Mech Mk 19-0				2	
Firing Mech A-6 or A-8					
Thermal Switch TS 1-2	17	20	22	25	
Thermal Relay Mk 24-0	14	14	17	20	
Terminal Block TB-7	100	70	100	20	
Terminal Block TB-8	4	5	5	8	
Terminal Block TB-10	17	20	22	25	
Terminal Block TB-11	2	2	2	3	
Terminal Block TB-18		1	1	2	
Terminal Block TB-19	5		3	5	
Terminal Block TB-20	30	20	30	20	
Terminal Block TB-24	4	4	4	6	
Terminal Block TB-27		2	2		
Firing Condensers	50	60	70	60	

er than the rubberized horsehair and an excellent substitute.

Moisture, fungus, and dust-proof heat-sealable wrappings called "barrier materials" should be used as necessary for protecting the components you plan to store in metal containers. These barrier materials come in 200-yard rolls 36 inches wide.

MIL-B-131, Class 1, is a barrier of fabric laminated with aluminum foil that can be used for wrapping the heaviest items. It costs $107 per roll (G8135-282-0565) from General Stores.

MIL-B-131 (G8135-282-8256) Class 2 is kraft paper laminated with aluminum foil and is more economical for wrapping small items to be packed in a single container. Like we said, though, it's weaker than the fabric barrier, so is not recommended for items over 10 pounds, or over 42 inches length-plus-width. It costs only $70 per roll.

Heat-seal like the pros

A heat-sealing machine MIL-S-4461, Type 1, Size 6, is available from General Stores @ $151 for use with the barrier materials. It's portable, operates at any angle from horizontal to vertical, and makes tight seams in the barrier material by applying heat under pressure.

This, by the way, is a gadget that J. L. Harris of Navy 955 Rudminded us about—a sure-fire piece of equipment for promoting component shelf life and reliability.

Now, about those desiccants

Another thing you'll need is a supply of fresh desiccant bags (air dryers) and humidity-indicator cards. You'll need them even though you use metal containers for repackaging, because most metal containers depend on rubber gaskets that lose effectiveness with age.

The answer is to distribute desiccant bags uniformly within metal containers and place a fresh humidity-indicator card near the top of the container but not in contact with any metal.

Desiccant bags cost from $.13 to $.60 each and are available as shown in the box upper right.

N	8027-1	8027-2	LD 479356
	0	220	250
	2	15	26
	150	175	220
	250	320	350
	8	35	42
	3	35	42
	20	25	70
	3	4	8
	6	7	9
	0	35	45
	50	65	80
	70	80	100
	5	20	30
	0	80	120
	60	70	90
	5	6	15
	4	4	10
	2	2	5
	1	2	4
	7	10	15
			1
	5	50	100
	35	45	60
	0	65	220
	0	11	40
	5	50	100
	3	3	10
	3	4	5
	6	8	20
	42	50	60
	5	5	20
	2	2	4
	0	100	120

Component	1 Quart can	1 Gallon can
Arming Cell Mk 2	6	20
Timing Element Mk 1-0	4	14
Hydrostatic Switch HS-4	8	40
Anti-Recovery Switch AR-1	1	3
Sensitivity Switch Mk 3-0	1	3
Sensitivity Switch Mk 3-1		3
Sensitivity Switch Mk 5-1		2
Time-Delay Relay TD-16	1	6
Thermal Switch TS-1-2	2	7
Sterilizer Mk 11	2	6
Actuation Counter SE-3	3	6
Thermal Relay Mk 24-0	1	
Terminal Block TB-10	1	4
Terminal Block TB-20		2
Bleeder Assembly		7
Sterilizer SD-4		1
Firing Condensers	4	10
Clock-Delay Mechs		1

Gallon paint can

	Capacity 1 quart	1 gallon
Diameter	4 1/4"	6 5/8"
Height	4 7/8"	7 1/2"

FSN
1 quart - G8110-178-8291
1 gallon - G8110-178-8292

DESICCANT ORDERING DATA

Units per bag	Bags per can or drum	FSN
1	320	Y6850-264-6562
2	200	Y6850-270-5546
4	500	Y6850-264-6574
8	300	Y6850-264-6571
16	150	Y6850-264-6572

Three-by-two-inch humidity-indicator cards (MS 2003) come 125 to the can @ $2.50 (Y6685-752-8240). Each card has three marked circular areas that turn pink at relative humidity percentages of 50 (examine item) 40 (change desiccant) and 30 (warning) respectively.

"Cook-outs"

To dry used desiccants and de-pink indicator cards that have done duty you can't go wrong with a batch-type, 110/220-volt drying oven. This bench-mounting baker Fed Spec W-0-830, Type 1, Class 1, has a 100 to 300° F. thermostatic control and can be ordered in several oven sizes from $180 to $700. No. 1 size is 1' x 1' x 1'. No. 3 is $1\frac{1}{2}$' x $1\frac{1}{2}$' x $1\frac{1}{2}$'. No. 4 is 19" x 14" x 19". And the jumbo No. 5 job is 2' x 2' x 3'.

Tape is terrific!

A repackaging must is tape: pressure-sensitive, adhesive, cloth-backed, water-sunlight-rot-resistant tape. No other material is as handy, versatile, or time-saving, whether you're preparing odd-shaped items to be boxed or canned, or resealing hinged-cover, coffee-can, or telescoping-type containers.

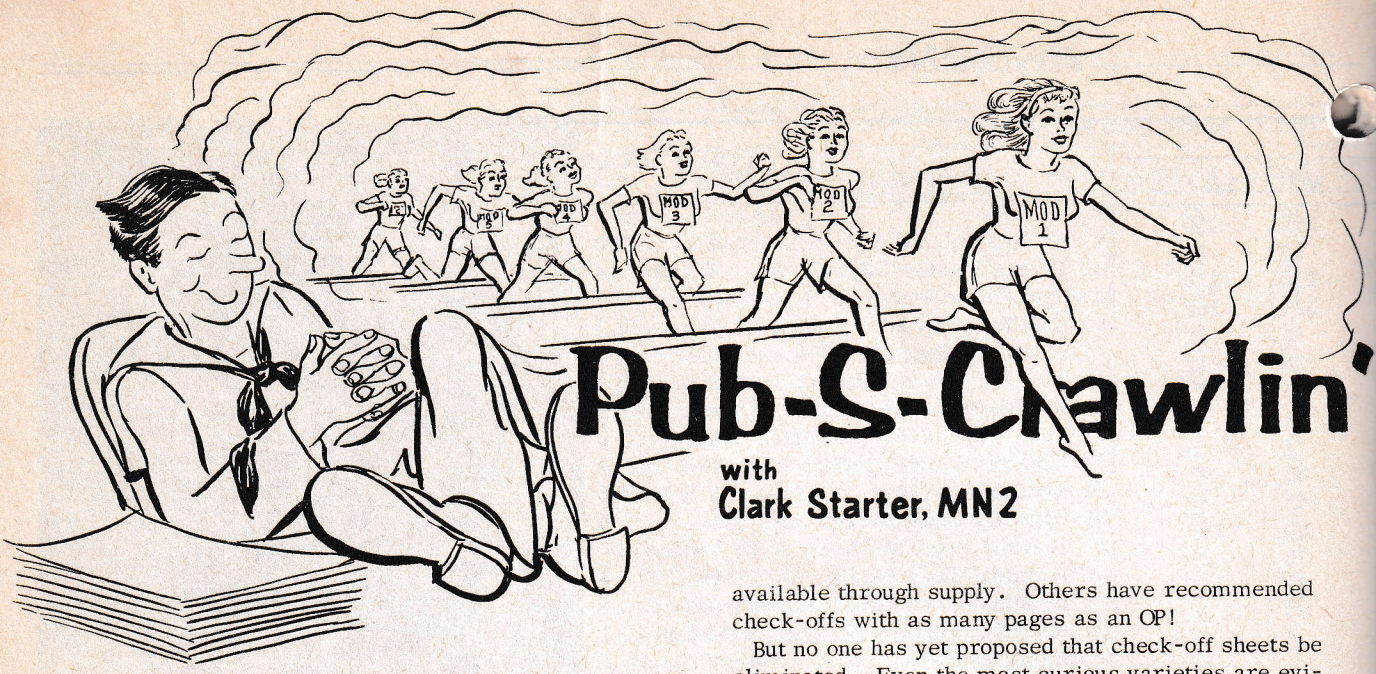
This tape comes in 60-yard rolls, 1 inch wide @ $1.00 (G8135-634-0853), and 2 inches wide @ $2.50 (G8135-634-1166).

Letters are terrific too!

Like we said, these are just some of the ways and means that can be used for repackaging those costly components. They're good for depth-charge gear too!

So now that we've got them in print a lot of you are most likely just itching to write in about something better or faster or cheaper or handier that we haven't even mentioned. So why not? Scratch the idea onto a piece of paper, parchment, papyrus, or what have you, and we'll flip and flap it straight to the fleet.

Who knows? Yours may turn out to be a baby the whole Navy should adopt!



Pub-S-Crawlin'

with
Clark Starter, MN2

Sound off on check-offs

Back in April 1961 a letter from Lyle Stryker, Mines Officer at Navy 3867 had this to say: "There is a great need in the mine program for standard component and mechanism check-off sheets. At present each unit has its own . . . they should be standard for all."

Lyle's opinion echoes many others, more than a few of whom have talked or written to us about the lack of uniformity and other shortcomings of check-off sheets. Some suggested that standard forms in pads be made available through supply. Others have recommended check-offs with as many pages as an OP!

But no one has yet proposed that check-off sheets be eliminated. Even the most curious varieties are evidently better than none at all.

The question, then, is not one of basic need but rather how best to meet that need . . . how to decide what check-off sheets should contain and how detailed they should be.

Do you have your own local brand of check-off sheet? Send us a sample and comments—good or bad. Maybe you're satisfied with the ones in the OPs but can't get duplicating services to make copies like the OP says or implies? Write and tell us.

Check-off sheets are a problem we'd like to do something about.

▶ **NAVORD LIST 23922 Rev A:** On page 8 of Section I, after item 75 the words in the parentheses in the nomenclature column should read (for Mine Fin Mk 3 Mod 0). The reference to Mk 7 should be crossed out.

▶ **OD 7318 2d Rev (Mine Mk 10-3):** On sheet 37 the drawing for item ii, Washer (16), should be MS15795-614, not 1509093.

▶ **OD 7320 2d Rev (Mine Mk 10-9):** On sheet 27 the drawing for item ii, Washer (16), should be MS15795-614, not 1509093.

On sheet 50 item 264.0, Washer, flat, DWG MS15795-615 should be crossed out.

▶ **OD 12067-D (Depth-Charges):** On page 10 item 6 should be DWG 180385, not 180389.

▶ **OP 681 1st Rev (Firing Mech. M-11 all mods):** On page 28, the number 25 in the last line on the page should be 24.

On page 34 the second and third lines of paragraph 13 should refer to Circuit Break Mk 1 Mod 0, and Mk 2 Mods 0 and 1.

On page 35 the third line of the note after paragraph 15c should refer to Circuit Break Mk 2 Mods 0 and 1.

▶ **OP 1736 2d Rev (Mine Mk 39-0):** Figure 6 (exploded view of clock-well components) should show two wing nuts to secure the SE-3 Mod 3 on the studs in the clock well.

On page 20, in step 3 under SE-3 Mod 3 Mechanism, the number for the four screws should be GM5305-043-6696 (MS35225-46). For the lockwashers it should be GA5310-209-5309 (MS35338-23) and for the nuts, GS5310-558-2994 (MS35649-82).

On page 26, the following should be added just before step 1 under SE-3 Mod 3 Installation: NOTE: Remove the paint from the areas on the SE-3's mounting plate where the wing nuts will bear against it to assure a good ground connection.

On page 27, in step 4 under SE-3 Mod 3, (DWG 496085-2) should be inserted after #14; in step 7, (DWG 496085-5) after #20; in step 2 under Extender Cable Installation, (DWG 496085-1) after #12; and in step 3 under Clock Starter and Short Delay Clock Installation, (DWG 496085-4) after #18.

On page 29, step 3 near the top of the left column should read: Connect the test-set's lead L (CA-369) to the + (F in old stock) of CA-420 (EX).

On page 34 in the table after step 8 the heading of the

ht column should refer to Current on 0-150MA Scale, not 0-15MA. Step 12 in the left column of this page should read: Connect test-set's cable (CA-288) to CA-420 (EX), lead C to +(F in old stock) and lead D to -(A in old stock).

On page 35, in step 1 under Booster Installation, the drawing number should be 497673. In step 3 the last two lines should read: . . . with the longitudinal hole in the booster turned 90° from the cable conduit in the wall.

On page 36, step 4 near the top of the left column should read: Connect the leads of CA-420 to the terminal block, + (F in old stock) to +, and - (A in old stock) to -.

On page 38, under Arming Wires, the following should be added at the end of step 7: . . . turned so the flat sides of the clips face up.

On page 43, the following should be added to the paragraphs on Assembly Procedure:

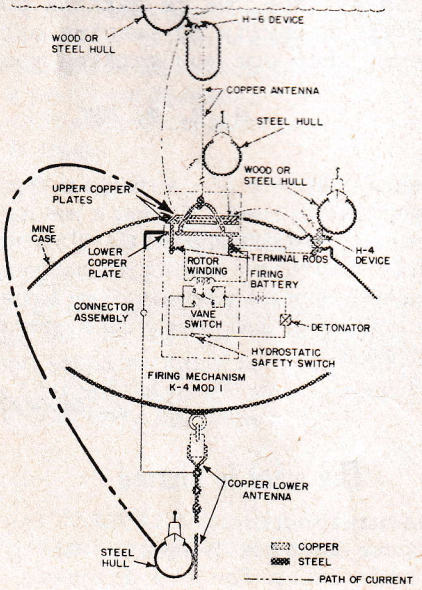
CLOCK DELAY CD-14 MOD 6 INSTALLATION. Spacer DWG 452146 can be used in place of spacer DWG 1208118.

SHIP COUNTER MOUNT ASSEMBLY. SE-3 Mod 3 mount assembly DWG 452086 and Cushion Mk 30 Mod 0 DWG 484783 can be used in place of Mount Assembly DWG 1558534.

The above corrections apply also to Items 1, 9, 20, 25, 33, and 39 in the back of the book. 19-21-22 38 40-46

▶ **OP 1799 1st Rev (Firing Mech A-5 all mods):** On page 30 step 3 under Energy Test of Firing Mechanism should read: Make a continuity check on the firing cable CA-415. Connect the black lead of CA-415 to terminal A (grounded) on the SE-3 terminal strip, and the white lead to terminal 1 (or G).

▶ **OP 1853 Vol 1 Adv. Copy to 1st Rev (Mines Mk 6 & 16 all mods):** Figure 21 should show connection from the lower antenna to the firing mechanism's lower copper plate. It should also show a current path from the steel hull of the submarine on the lower antenna, through the water, to the firing mechanism's upper copper plates.



On page 63, in the second paragraph under Mine Case Mk 6 Mod 6, DWG 1508490 should be inserted after the first word in the last sentence (Studs).

On page 64 in the paragraph under Mine Case Mk 6 Mod 0, the part after the semicolon should read: shoulder studs are used instead, and are installed according to the procedure on page 139 for installing flanged studs and bolt seals.

On page 139, the last sentence of the first paragraph under Nuts and Gasket Torques should read: Tighten diametrically opposite nuts and screws alternately to an initial torque of 5 pound feet. As a final step before marrying case to anchor, complete tightening diametrically opposite nuts and screws alternately to a final torque of 16-20 pound feet.

The second paragraph should be crossed out.

NOTE: The above corrections will also apply to your official copy of the 1st Rev, now at the printers.

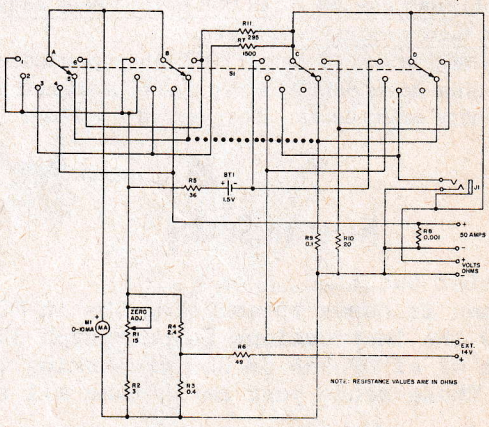
▶ **OP 1892 1st Rev (Mine Mk 36-3):** On page 22, the last sentence of subparagraph 22b should read: Tighten the bolts until the batteries fit snugly but avoid excessive tightening, which can crush batteries enough to cause internal shorts.

▶ **OP 1905 1st Rev (Firing Mech M5-1):** On page 36, the second sentence of paragraph 47 should read: The mechanism should be fused, its torque control wound, and then installed over one of the spare turntable tops with its plastic hemisphere off.

On page 37, the following step should be added to paragraph 49: c. Completely tape each lug on CA-775's fuse end separately.

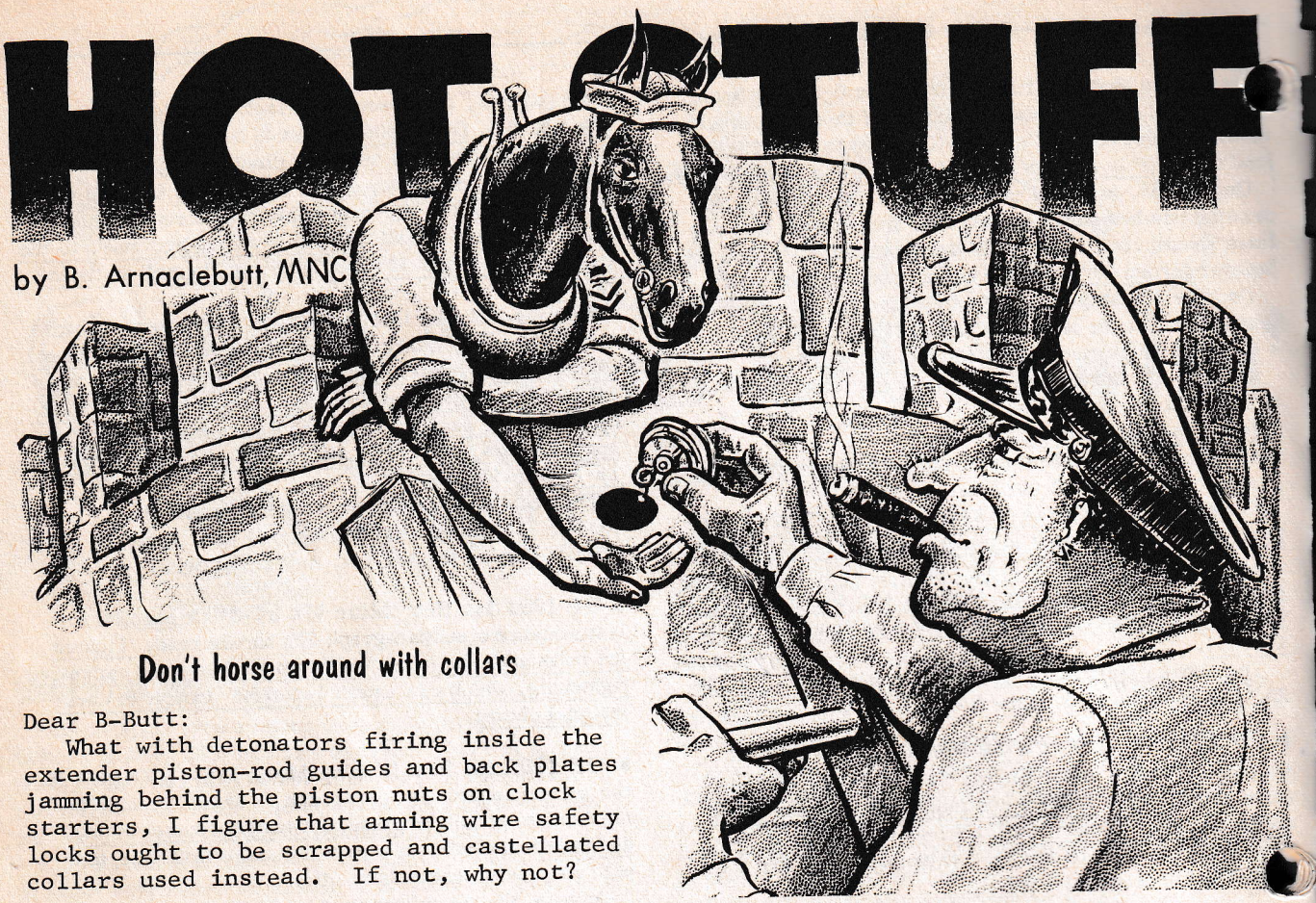
▶ **TROUBLESHOOTER 3-61:** We goofed on page 15; our change to the wiring diagram for OP 1860 showed the new connections in the wrong place, so change the diagram in your T-Shooter (also diagram in 1860 if you corrected it per our change) to put the additional connection in where you see the line of dots in the diagram here.

Also, change the item for OP 948 on page 14 to read: On page 28, in paragraph 2 under Hydrostat, 23 ± 6 should read 32 ± 6. Also check your OP 948 for this new correction. Looks like it was only a typo error after all.



HOT TUFF

by B. Arnaclebutt, MNC



Don't horse around with collars

Dear B-Butt:

What with detonators firing inside the extender piston-rod guides and back plates jamming behind the piston nuts on clock starters, I figure that arming wire safety locks ought to be scrapped and castellated collars used instead. If not, why not?

T. U. N. MN1

Dear T. U. N.,

A recent study proved conclusively that clock-starters and extenders equipped with castellated collars will operate before jettisoned mines sink deep enough for their cases to crush. That's why not.

But mebbe the locks that gave you trouble had had rough treatment? If so, you should be doing like it says in OP 1452: "Discard any arming-wire safety lock of doubtful reliability." In other words, if the lock doesn't look good, reject it. Furthermore, like it said in "Care in Handling of Arming Wire Safety Locks" (NAVORDNOTE 8551, 25 June 1958) don't use any locks that haven't been shipped to you in their original containers.

You're still in doubt? Out of 1097 mines planted in fleet service mine tests only 14 failed due to malfunctioning arming-wire safety locks. That record's not bad!

B. Arnaclebutt

Never on Sunday

Dear Chief Butt:

When it comes to mounting CBs in Mine Mk 25-0 the instructions in paragraph 39e on page 42 of OP 956 3d Rev are asking too much. Those studs just can't take all that crowding. Loops—lovely, jam nuts—nice, flatwashers—okay. But lockwashers??? The men tell me that "A Reaming That Helps" in your T-Shooter 2-59 column was fine for fat studs but bigger holes don't help short studs any.

Out here, then, we're getting our CBs mounted satisfactorily by leaving off the lockwashers. How are you getting yours?

H. E. P. MNC

Dear Chief,

Let's just put it this way . . . a change to that paragraph 39e will make it read: "Tighten a jam nut G5310-221-4839 on each top stud and place CA-275's strain loops over the studs, then tighten another jam nut on each stud. (Remove undersized brass grommets from loops but do not damage cloth eyes, then place a flat washer between loop and top nut.)"

Your dice!

B. Arnaclebutt

The word is blurred

Dear B. Arnaclebutt:

From time to time T-Shooter has given various references for the disposal of

efective explosive-loaded depth charges. What is the latest SOP on this?

S. C. D. MNC

Dear Chief,

To try and get your answer I've just read 8 impressively worded documents that purport to reveal the straight skinny. But I still don't know, because I can't understand what they say.

Right now my advice would be to write to the cognizant agency for explosives—NAD Crane—and ask them what to do with your defective explosives. . . provided the gear is not endangering anybody's life and limb. If it is then you have an easier out. NAD/CRANE INST 8026.1A says your commanding officer can, without reference to NAD/Crane, immediately dispose of material if in his opinion it will prevent loss of life or damage to property.

I'm sorry but that's the best I can do. Maybe before our next issue somebody will decide what material you should report to who how, and draft a single instruction or drop me a letter in plain everyday English so we can get this cow's tail out of the rigging once and for all.

B. arnaclebutt

Stencil no stymie

Dear Barnacles:

When we unpacked a Mk 14-2 extender it had ACCEPTED FOR SERVICE USE BY WAIVER OF INSPECTION TEST REQUIREMENTS OF PARAGRAPH E-1, OS 2872, AUTHORITY BUORD LTR Ma7a: SSR:hth, NORD 10888; 4 MAY 1951 stenciled on it. This extender tested acceptable per OP 1452 2d Rev. What test was waived? Was it OK to put this extender in Code 0?

L. F. J.

Dear L. F. J.,

OS 2872's paragraph E-1 required that the flange casting be free of porosity and capable of passing a certain air-pressure test. If your extender passed OP 1452's tests it's acceptable and should be placed in Code 0, ready for use in Mk 25 and 36 mines.

For what it's worth, OS 2872 has since been superseded by MIL-E-16840.

B. Arnaclebutt

Wa-sher problem?

Dear B-Butt:

That steel washer located below the shipping washer on the Mk 5 arming device's extender section sure is tough to remove during installation of the arming wire on the various mods of mines Mk 52.

G. I. B. MN2

Dear G. I. B.,

No sweat. NOLR 1216, page 9, paragraph 4 "Soluble washer installation" says not to remove that steel washer.

Ask the man who owns one

Dear B. Arnacles:

Use of Test Set Mk 246-0 calls for knowing the local barometric pressure, but no barometer is included with this set. Whenever we use this set we have to keep calling another activity nearby for a reading. A barometer furnished with the test set would do away with this bother.

N. E. H. MN2

Dear Bothered,

I queried the Naval Ordnance Laboratory, White Oak, which has design cognizance of your set and which had this to say about such common instruments as clocks, thermometers, and barometers: "To supply these individually as ancillaries with specific test equipments appears uneconomical since loss, special stocking, and possible calibration difficulties would become unwieldy."

That sounded pretty bad. But then I decided to look up "ancillary" and found it comes from a Latin word meaning female servant.

That did it. You know as well as I do that that stocking problem would be all that they say and more, and the supply system is just never gonna provide us with any such merchandise, laboratory approvals or not! The letter did go on, though, to offer some help, stating that: "A review of the situation indicated that essentially all Navy facilities are provided with precise local barometric data by the Fleet Weather Facility or by the local Harbor Master."

And there you are. Of course there are places where you may not even find these, in which case they suggest you use the test-set instructions to convince your local supply officer that you have a real need to know the local ambient squeeze.

From this you can see that no matter how bad you think you need those ancilliaries, getting them in this man's Navy is not about to become a breeze.

B. Arnaclebutt

London, Midland, and Scotland

Dear Chief:

For the clock–delay starting–bar gage test, page 69 of OP 1452 Rev 2 calls for a gage with .090 GO/.220 NO–GO. Page 2–7 of Instruction Sheet CD–8–0–5 in Chapter 2 of OP 1452 Vol 4 Rev 3 calls for a gage with a .095 GO/.200 NO–GO. Am I right in assuming that Rev 3 is for use with the new type of components and that Rev 2 still applies to the components it covers?

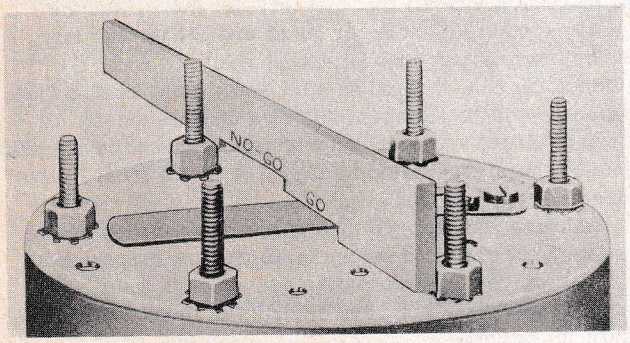
L. M. S.

Dear Ensign,

That's a real right-sounding assumption. But according to the local railroad men the gage shouldn't vary. In other words .090 GO/.220 NO-GO is right.

The official pub, by the way, is still OP 1452 2d Rev with Changes 1, 2, and 3. That 3d Rev you have is only a preliminary edition just like it says in par. 4 of the letter of promulgation of each volume.

B. Barnaclebutt



Tag that Mk 250-0 test set

Dear Barnacles,

I've heard that maximum air–line pressure for the Mk 250–0 test set is no longer 1000 psi. Does this mean that the pressure system instructions (DWG 1442492) included with some of the accessory sets used with the Mk 250 are wrong?

S.P.I. MN2

Dear S.P.I.,

It does. A recent BUWEPS speedletter stated that the maximum has been reduced to 300 psi. The letter also recommended that all users of this test set attach a warning tag in a prominent place on the set to indicate that it should not be connected to an air-line whose pressure exceeds 300 psi. So tag yours!

New sets coming through from issuing activities should have the tags already attached and new pressure system instructions are being prepared to show the new maximum pressure. The reason: it's safer that way.

B. Barnaclebutt

Gutter ball

Dear Butt:

One bug in testing Control Box 39-0 could be flitted by marking the two 9-pin connectors of Test Set 205-0's cables CA-848 and 849. They're interchangeable in the CB's J202 and J203 plugs.

G. U. B. MN2

Dear One Bug:

Ever since Rip Van Winkle cavorted with the Catskill gnomes there have been rumblings about this business of determining which 9 pins should be set up in which alleys. Slow death is apparently your answer, since Control Box Mk 39-0 is being replaced by Mk 39-1 which requires Test Set Mk 340 (no CA-848 or 849). Meanwhile your 39-0s—while they last—will probably be limited to drill use.

That, my friend, is why your suggestion got nixed. There's another reason too: Plug in the 11-pin connector of either of these cables first (it can only go to one position) and the lay of the webbing will make it close to impossible to hook up these 9-pin jobs wrong.

B. Barnaclebutt

Search coils are like sopranos

Dear Barnaclebutt:

For the life of me I can't see why OP 1452 Rev 2 specifies testing search coils every two months, or why OPs 956 Rev 2 and 1765 Rev 1 tell you to go to 1452 for routine tests. In my book those coils are real rugged.

N.E.D. MN2

Dear N.E.D.,

For the life of me I can't figure out what you're doing with those obsolete pubs. You need Rev 3 to 956 and Rev 2 to 1765, both of which have been available for more than three years. Get 'em!

As for the 1452 requirement, a closer reading will show you that it says: ". . . coils that have not been tested for more than two months . . . should be retested before the mine in which the coil is used is planted." This isn't exactly calling for a regular bi-monthly test, but why it's in the OP at all bugged me too. What we need for assembled mines is periodic overall operational tests instead of component checks. At least this is the tack that we at NMEF are trying to take.

As for the coils being rugged, you come close but still don't get a cigar. The world-wide surveillance program shows that they're tremendously stable, which is all to the good. But we've got a carload of Rudmindes to prove that rugged they're not.

When it comes to handling, then, they've still got to be treated like prima donnas or they'll never make it in the high "C"s.

B. Barnaclebutt

Do You do this Job Right?

A FEW YEARS AGO Martin Dixon and Garland Hastings got the job of testing a flock of Mark 6 Depth-Charge Pistols at the QE Lab/Yorktown. What they found—like plenty of the rest of us—is that the preservative on the pistols makes it pretty hard to carry out the instructions in OPs 747, 866, and 2960, where you're told to flex each pistols'-index pointer back and forth several times from 30 to SAFE just before you test.

What they did about it, though, was different. Most of us have one man get a death grip on the pistol with a strap wrench while the other uses a depth-setting wrench to flex the pointer. Instead, the Dixon-Hastings combo worked out a simple modification to the test fixture that comes with Depth-Charge Test Set Mark 2 whereby the fixture held the pistols for Dixon, Dixon proceeded to do the flexing and testing single-handed, and Hastings reported himself available for other work!

So why didn't they write it up as a Benny Sugg? They did. It was adopted, too. But then somehow it got lost before it had found its way into the drawings for the fixture or the instructions in the OPs. Here, then, is a T-Shooter rundown on how to duplicate the Dixon-Hastings modification:

▶ Clamp the fixture in a vise exactly as shown in OP 747 on page 108.

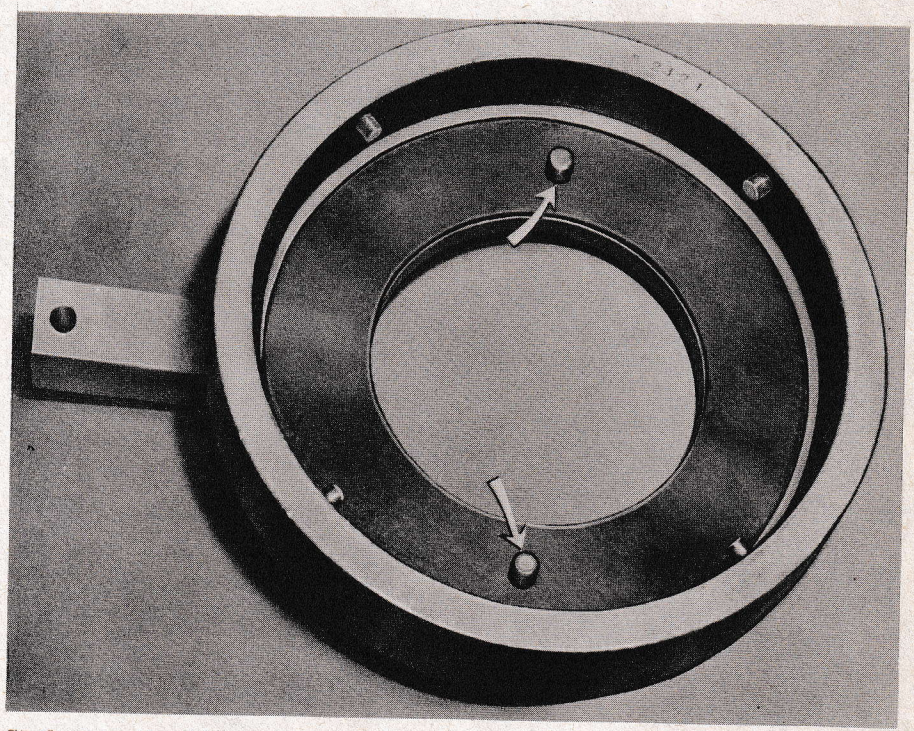
▶ Remove all gaskets from the fixture, put in a Mk 6 pistol, and prick punch centers through two of the pistol's mounting holes 180° apart.

▶ Remove the pistol, drill and tap for two 3/8-inch diameter studs just like we show, coat the studs' threads with glyptal so the fixture'll still be air-tight after you're through, and screw the studs in tight.

▶ Cut holes in the rubber washer (the one with the larger outside diameter) so that it fits snugly over the studs, then place the pistol in the holder on top of the washer and check the studs for height. They should be slightly recessed in the pistol's flange so they cannot interfere with the fit of the second (smaller diameter) rubber washer on top of the flange.

Finish her up by grinding down any excess stud height and you'll be done with a job that's easy to do, interferes in no way with the normal functioning of the fixture as an instrument for pressure-testing, and makes a vexing two-man tussle into a one-chap snap.

the Editor



Studs installed in lower half of fixture from Depth-Charge Test Set Mk 2.

We have the world's best weapons—Use 'em right!


Trick or Treat
Crystal-balling and caterwauling? Why not try the hex for boo-boos, bugs, and beefs that really works... RUDMINDE!
No pins, no fetishes, no philtres.
Nothing up front but prompt action, straight dope!