In this issue:

Deduction of Educational Expenses
Repairmen's Dinner in Philadelphia
Rush to the Rockies
Here are useful additions to your library of technical material. This department will regularly offer suggestions for new books you may wish to acquire. Any reference books, whether or not here listed, photographic or otherwise, will be located for you and may be purchased thru NCRS Supply Department.

FLASH ULTRA HIGH SPEED PHOTOGRAPHY
H. Edgerton and J. Killian $6.50

PHOTOGRAPHIC OPTICS
Arthur Cox 5.75

PHOTOGRAPHIC OPTICS
Allan R. Greenleaf 6.00

PRINCIPLES OF OPTICS
Hardy and Parris 9.50

YOUR CAMERA LENS AND SHUTTER
H. L. Weekefield 4.95

CAMERA REPAIRMAN'S HANDBOOK
J. L. A. H. D. 5.95

HOW TO ORGANIZE AND OPERATE PHOTOGRAPHIC SERVICE DEPARTMENTS
.50

PROFESSIONAL EQUIPMENT: USE, MAINTENANCE, AND REPAIR OF
.50

KODAK REFERENCE HANDBOOKS
S. J. Lipinsky 7.95

MINIATURE AND PRECISION CAMERAS
A. L. M. Sowerby 10.00

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Margen & Morgan 3.50

FOCAL ENCYCLOPEDIA OF PHOTOGRAPHY
D. Longo 2.95

KODAK GRAPHIC ARTS HANDBOOK
H. M. S. 6.50

PHOTO-LAB INDEX
Henry M. S. and John S. Carill 19.95

THEORY OF THE PHOTOGRAPHIC PROCESS
C. E. K. Mies 21.50

THE CAMERA CRAFTSMAN

VOLUME 5 NUMBER 1

January - February 1959

Published for students, graduates and friends of the National Camera Repair School

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THIS MONTH'S COVER

Captain Alfredo Niederheitmann studies and works in this neat combination darkroom and shop at his home in Guatamala City

STAFF

Clair H. Schmitt_________ Editor
Dorothy Hauptman_________ Assistant Editor
Margaret Snyder_________ Art Director
Frank H. Curtis________ Advertising Manager
William Hagerdorn________ Production Manager
Although the items to which this column is devoted have already been published elsewhere, the subject is of such vital importance to camera repairmen and dealers that the thoughts bear repetition.

In an identical letter sent to the editors of several magazines, Joe Price, the Director of Publicity for the National Association of Photographic Technicians has clearly indicated the stand of this organization in the field of camera repair. He rather attempted but did not succeed in camouflaging the intent of the organization. There have, indeed, been many advancements in camera repair, as there have been in many businesses. But Mr. Price's letter suggests that a camera repair firm must have "anywhere from 8 to 35 employees and . . . a volume of business equal to many large photographic establishments . . . ." He thus hints that organizations with a limited number of employees are not qualified to become members of the organization, just as they are not qualified to do quality repair work.

Mr. Price's ideas about the skills required, technical and managerial, are quite accurate. His other ideas are woefully inaccurate. This letter speaks for itself:

"Hurrah a thousand times to Joe Price for his thoughts about the advancements of photography and camera technology. His letter points up a number of interesting facts.

"However, with one of Mr. Price's premises I must violently disagree. No service organization can count as a virtue the fact that it is either large or small. Some of the largest firms in the United States today were once so-called 'basement' operations; it is not unlikely that some repair shops today using a basement or garage will one day consider a payroll of 24 employees quite small, as such a number truly is by many standards. The size of a repair shop is of as little import as is the size of a photo dealer's store.

"Mr. Price seems to be overlooking the most vital asset of any organization, i.e., service. No matter how many employees a company may (Con't Page 4)
You will work better when you see better with this new Binocular Magnifier. May be worn with or without eyeglasses. Leaves both hands free to work. Fine tolerance and precision work can be done easier, faster and more accurately using this equipment. With the Magni-Focuser you see an object in third dimension greatly magnified - with depth and clarity. It reduces eye-strain and prevents squinting - thereby saving time, increasing accuracy and minimizing the chance of errors and accidents. The head-band is adjustable for your comfort. Normal vision may be resumed by slightly raising your head.

Model No 2 magnifies 1-1/2 times at 20" Price $10.50
3 1-3/4 14" 10.50
7 2-3/4 8" 10.50
10 3-1/2 4" 12.50

Model No 13 and 17 are the same as No 3 and 7 with an auxiliary lens attachment which gives magnification of 4-1/4 and 5-1/4 respectively, with the right eye only. Priced $15.00 each

Use Kimwipes
ON YOUR DISPOSABLE WIPES
Camera bench...
SAFE!
SOFT!
CLEAN!
DISPOSABLE!
NON ABRASIVE!
Kimwipes special design captures grit and dirt in the crepe pockets to protect such highly polished surfaces as camera lenses and binoculars.

4 Boxes...$1.35
12 Boxes...$3.45
Postage paid with cash orders.

4 THE CAMERA CRAFTSMAN JAN-FEB 1959
Reports
FROM THE
CRAFTSMEN

The Motion Analyzer in my shop was pur-
chased with the thought in mind of studying the
action of shutters much more thoroughly than a
needle on a meter could show me. It has suc-
cceeded in its purpose.

E. Burton Shofner
Hanford, California

The (ServiShops) Time Estimator seems to
be a practical and down-to-earth system of
arriving at a price and leaves little to be asked
for.

John G. Costello
Millinocket, Maine

Here is what I am doing with my Analyzer
to start my camera repair business.

I am contacting camera clubs in the area and
going to their meetings with the Analyzer (of
course it is advertised among the members that
I will be there) having them bring their cameras
for a check of shutter speeds and flash synch.
Also doing the same in some of the camera stores
nearby. This has proven to be a good idea so
far and I have gotten a few jobs as a result of it.
It has also been a help to some of the members
of the clubs to know just how their equipment is
working.

I make a small charge for this and they are
well pleased with the result.

Have had the promise of work from quite a
few members of the clubs, also from some of
the stores.

I am taking this means to break in on the
repair business here in this area.

Charles F. Massey
Philadelphia, Pennsylvania

The local photography studio has learned
that I am taking your course and promised me
that I can have all of their camera repair ser-
vice and that of two other cities in this area that
are always sending cameras to them for repair.

Clyde H. Monson
Gunnison, Colorado

Millie (ServiShops Motion Analyzer) is work-
ing like a dream. Sure saves time in analyzing
troubles in flash synch and in adjustments of
retard sections after complete disassembly.
Sure makes believers of people who see it in use.

John L. Stites
Pocatello, Idaho

New TOOL CHESTS

$15.50

LOCK
Nickel plated
snap type locks

LIFT-OUT TRAY
Will fit at either end of
top drawer. 16 compart-
ments with 1-13/16 x
3/4 x 1/8, provide
ing space for small
items.

DRAWER SLIDE
Strong composite drawer slide
with positive stop and patented
spring release.

Combining all of the convenience of a tool
or die makers chest plus ease in carrying,
number 2020 presents a new concept in hand
conveyed tools boxes. The drawer arrangement
permits use in restricted area where space does
not allow the opening of more conventional
type boxes. Especially useful for the service
mechanic. Suitable for the home workshop.

Finished in dark brown baked enamel with
contrasting tan on drawers.

STYLE NO. DIMENSIONS

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<td>Lower Drawer</td>
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NET WEIGHT . SHIPPING WEIGHT

| ONE TO CARTON |
|---|---|
| 15 lbs. | 16 lbs. |

Top drawer has 12 permanent compartments
2 1/2 x 3 x 1/2 plus 3 removable partitions.

The Camera Craftsmen Jan-Feb 1959
The Maytime Is Picture Time promotion of the Master Photo Dealers' and Finishers' Association is gathering momentum this year, far enough in advance to really show some results come May. This promotion had fine impact last year, the first time that it was tried, despite the fact that much of the preparation had to be completed in a minimum amount of time and with resulting limited cooperation.

This year, emphasis cannot be placed too strongly on advance preparation. Get together now with your dealers to plan the actual efforts you will make as a repairman to stimulate photography during May. Plan a Camera Clinic in your shop and, if you service dealers, in every photo shop you can possibly reach. It's wise to schedule these carefully, picking the days that your dealers feel will be the best for them individually. Bring test equipment into the store and distribute literature such as the little booklet "Photography -- It's Wonderful", and your test charts, to customers. Provide free flash tests and shutter speed tests. Arouse the enthusiasm of your local newspaper with advance checks of their equipment and information about the value to the community of the services you and your dealers offer.

Make sure that every local camera club also knows (in advance) of the various activities centered around the Maytime, Picture Time theme. If possible, get the clubs to select a "Maytime Is Picture Time Queen" who'll act as a model during the club's May meetings and, perhaps pass out souvenirs in your store or shop test sessions. Attend the meetings as a speaker or just to announce the plans.

One of the best places to start activities on a club level is at the local high school. The photography club there can usually select a high school girl to act as their Queen and very often provide a nucleus for a similar activity in other clubs around town.

The key to success in this, as in other projects involving public interest, is to get started early. Contact your dealers, newspaper editors, club presidents and others, and keep spurring them on until action results.

(con't. page 8)
Requests for repair manuals and/or parts lists have been coming in at the rate of at least one a day for some time. With the increased complexity of camera mechanisms, proper disassembly and identification of parts becomes quite a problem, and these requests are certainly justified.

However, the publication of this type of material has never been adequate, and although many more manuals are available now than there were a couple of years ago, the increasing number of models and changes being introduced has made it next to impossible to supply adequate information.

The policies for supplying repair manuals and parts lists to repair shops vary from manufacturer to manufacturer. Each shop owner or manager should write to the manufacturers or distributors asking for information as to policies in supplying technical information. These requests should be written on shop stationery, since this will indicate that the request is being made by a legitimate, operating repair shop. These requests will serve two purposes. One, of course, is that information available may be supplied to the shop. The second reason is that it will encourage the manufacturers to make more information of this kind available.

Some manufacturers have a great deal of information printed about their equipment and are quite willing to supply it to legitimate shops. In some cases it is a subscription service and a small payment each year will automatically put a shop on the mailing list to receive literature as it is published. Other manufacturers may require inspection of the shop by a representative before authorization is given to receive such material, or they may require a period of factory training on the servicing of their photo equipment.

There are a few manufacturers who still feel that the owners of their equipment are best serviced by having all repairs made at the factory, or at the distributor's repair shop. In this case, no information or parts lists are available.

(con't. page 8)
Now packaged in convenient 7 cc applicator guns, NCRS Supply has two of the finest instrument lubricants available. Use All-Temp Lube for sliding levers and similar friction points. Use Moly Lube on motion picture camera springs.

All-Temp Lube $0.60
Moly Lube $0.70

SHINO Polishing Cloths
Two cloths — one with jewelers' rouge, the other for final polishing. Comes in cardboard box, 11-1/2" x 14" size. Each $0.75

Non-corrosive, resistant to temperature change, this Porpoise Jaw oil product stays at the point of lubrication 3/8 oz. bottle $0.75

(This ServiShop Business Con't)

available. Any requests for literature will be answered with the recommendation that the faulty equipment be returned to them for repair. Because of the long delays in following this procedure, and the increase of qualified repairmen, this policy may soon disappear completely.

There can never be complete technical information available, though, on every make and model of camera. The equipment must be serviced in any case and the repair shop must be able to satisfy its customers.

A repairman who must have step-by-step instructions before he can repair a camera is really handicapped and limited in the amount of work that he can do. The man who can take any camera, regardless of whether he has seen it before, or has printed information about it, and put it back in proper working order for his customer, is a true craftsman and of great value to the whole photographic industry.

(May Time Is Picture Time Con’t)

Since, as a repairman, you may not be a member of the Master Photo Dealers' and Finishers' Association, be sure that you make arrangements with a member dealer to get copies of promotional materials such as window streamers, car stickers, pins, etc., for use during this month. Here are a couple of suggested ads you can use and repeat. Then ---

make sure you let the Craftsman Editor know of your projects, so that they can be publicized and shared by all next year. Camera repair can be a powerful help to dealers. Let's show 'em how it's done!
HERE'S WHERE SERVISHOP CRAFTSMEN LEARN AND EARN
Made a change in your shop lately? Make a quick picture or two and send them in. Share your ideas.

George Keehner
Longview, Wash.

Norman Hyatt
Long Beach, Calif.

Paul Briscoe
Ponca City, Okla.

Eugene Bauer
Sheboygan, Wisc.

Homer Littleton
Berlin, Maryland

Norman Clark
Fort Lee, N. J.
SPT OFF TO A FLYING START

Already there have been a number of letters and suggestions from repairmen across the country, offering ideas that will make SPT more useful to every member. For example, a "Share Your Techniques" system whereby for every idea, illustrated by a good series of photographs you provide, you'll receive dozens in return. The Society will reproduce, publish and distribute copies of your sets of photographs of a special assembly or disassembly, repair technique, ticklish job, etc., to every other member who will do the same. Thus, once you submit your idea, you'll get in return copies of ideas submitted by any other member who does likewise. This is certainly not a unique system but it is new to camera repair and should prove quite valuable.

The Articles of Incorporation and the tentative draft of the Society's By-Laws will soon be published and distributed to repairmen all over the United States. You will be asked to comment, make suggestions and complete your application for membership in the Society at the same time. The new Society also needs to know if you'll be willing to serve as an Officer, a Committee member, or in any other capacity to help the group effort.

You'll also be asked to suggest projects and ideas on which the Society should concentrate. Your suggested projects will be developed into a work program, assigned to members who are interested in helping the organization and then accomplished only through your efforts. Let's have your ideas, your expression of willingness to work, and then your effort!

SPT MEMBERSHIP QUALIFICATIONS

An important feature of the Society of Photo Technologists is eligibility for membership. For general information, we here quote from the By-Laws, Article I, describing qualifications of two classes of membership:

NOVEL SHUTTER IN JAPANESE CAMERA

The Minolta V2 camera's shutter underwent a ServiShops Motion Analyzer test recently, at which time its unique action and fast shutter speeds were verified. The between-the-lens shutter provides a minimum exposure of 1/2000 second, and is accurate within a few percent of this speed as tested. Although it remains to be seen whether this exposure will serve either a useful or a novelty purpose, the unique method by which it is achieved is worth description here.

Up to and including 1/500 second, the shutter operates quite normally. Analyzer tests reveal that the shutter requires about 4 milliseconds total operating time at an efficiency of approximately 50%, for an exposure of 1/500 second.

As the shutter speed control ring is advanced to the 1/1000 sec. setting and then to the 1/2000 sec. setting, the blade control ring is progressively turned so that the blades overlap at the center to a greater degree than usual.

At these maximum speeds the usual driving action is used, but the blades begin moving to overcome the starting inertia a relatively long time before an opening appears. Thus, approximately a millisecond and a half is required for the blades to start to pass light. During the next millisecond, the blades continue to open, reach a maximum aperture and then close again. After another millisecond and a half, the blades reach a standstill once more at the end of the cycle. Regardless of whether the shutter setting is 1/500, 1/1000, or 1/2000 second, the shutter blades move approximately the same distance, in the same amount of time. Because of the overlapped start, the blades can reach only a maximum aperture of approximately f/8 at 1/2000 sec. and f/4 at 1/1000 second.

This means that the lens cannot be used at an aperture exceeding f/8 on 1/2000 sec., or f/4 at 1/1000 second. Even though the...
Clinic (cont.)
diaphragm were actually opened to a greater extent, the shutter blades will only uncover a portion of the lens aperture during this short operating cycle.

Despite these obvious shortcomings, the approach used to obtain this effect is of interest.

IMPORTANT!
Illness in repairman's family forces sale of Analyzer. The instrument was originally sold October 10, 1958, and to alleviate the misfortune, this instrument will be provided with a new instrument guarantee by NCRS. Price is $300.00 FOB South Texas.

SUCCESSFUL PHOTO RETAILERS are fully aware that creating traffic via price deals is a boomerang. There will always be a store where the consumer can "get it cheaper." The revolution in photo retailing is the continuous increase in service offered by photo retailers - not intermittent raids of discount houses into the photographic field.

Editorial in Photographic Trade News, Oct., 58

ARE YOU stiff in dealing with customers, or so informal that the visitor may consider you familiar or insincere?
ARE YOU impatient when prospects are vague about what they want? Remember that a good many come to you because they feel you're an expert, a specialist, and they need your advice and suggestions.
ARE YOU sharply contradictory to a customer who may be in error? Don't ever take a schoolteacher approach. The customer can be corrected, but pleasantly.
ARE YOU selling yourself to your customer? Show a bright smile and genuine interest; give him plenty of attention.
ARE YOU getting your visitor's name correctly and do you remember to use it often?

Theodore Handelman, sales promotion counsel, in National Jeweler, October, 58

SIMPLE DEVICE of never saying "No" to a customer has more than tripled volume of a service organization in St. Paul over the last ten years.

By accepting every job offered, no matter how difficult, and by promoting this idea to the hilt, this establishment is now luxuriating in a $150,000 yearly volume. A decade ago, volume was under $40,000.
DEDUCTION OF EDUCATIONAL EXPENSES:

HOW TO TAKE THE DEDUCTION, AND GET A REFUND

The new Regulation on business expenses liberalizes the rules on deducting the costs of education. Briefly the costs of education to maintain or improve existing skills or required to keep a job are deductible, even though salary increase or promotion is an incidental result. But expenses incurred primarily to qualify for a new or better position or status are not deductible. The new Regulation (retroactive to 1954) applies to the self-employed and employees, to the professional and business man.

Assuming your expenses are deductible several questions arise:

What and how much to deduct: The deductible education costs include tuition, books and lab fees; also travel, meals and lodging while away from home. But this does not mean that the Treasury will allow every travel expense that's blanketed in with some educational pursuit. The following examples from the new Regulations illustrate the point:

Example 1: H, a self-employed tax consultant, decides to take a 1-week course in taxation, which is offered in City X, 500 miles away from his home. His primary purpose in going to X is to take the course, but he also takes a side trip to City Y (50 miles from X) for one day, takes a sightseeing trip while in Y and entertains some personal friends. H's transportation expenses in City X and return to his home are deductible but his transportation expenses in City Y are not deductible. H's expenses for meals and lodging while away from home will be allocated between his educational pursuits and his personal activities. Those expenses which are entirely personal, such as sightseeing and entertaining friends, are not deductible at all.

Example 2: The facts are the same as in example 1 except that H's primary purpose in going to City X is to take a vacation. This purpose is indicated by several factors, one of which is the fact that he spends only one week attending the tax course and devotes five weeks entirely to personal activities. None of H's transportation expenses are deductible and his expenses for meals and lodging while away from home are not deductible to the extent attributable to personal activities. His expenses for meals and lodging allocable to the week attending the tax course are, however, deductible.

NOTE: Example 2 is a liberalization of Treasury attitude in that it now allows expenses for meals and lodging allocable to the week attending the tax course.

COMMENT: In both of these examples, taxpayer H is self-employed. It would make no difference were he a salaried employee such as an accountant, teacher, controller, etc., so long as the course tied in with keeping his job or improving
his skills in that job or was required by his boss.

The two examples show that the Treasury will pare from your claimed deduction its social, recreational or personal elements. Basically this is a fact question, and though the Treasury will resist abuse, it will follow a rule of reason in measuring the facts. One important factor will be the relative amount of time spent in education as opposed to personal pursuits.

A factor to remember is that expenses must be "ordinary and necessary". For instance, if equivalent summer courses are offered in a teacher's home city and one quite distantly located in a vacation area, the Commissioner might argue that the teacher's choice of the distant city was prompted by enough non-study reasons to cut down the travel part of the deduction. The burden would then be on the teacher to show sufficient non-personal reason for his choice.

COMMENT: No definite yardstick is available where essentially a fact question is at issue. A rule of reason will give the answer to most problems. The new Regulations do not specifically consider the case of a taxpayer's choosing the farthest as opposed to the nearest city where equivalent courses are given. But they do make it obvious that the Commissioner is not giving away deductions. Thus in the examples which we have numbered (1) and (2), all the personal-activity elements are cancelled out on the facts as presented.

WHAT TO DO: Marshal and keep education-related facts and data: e.g., course syllabi, special facilities or staff, your school official's statement, etc.

How to deduct the education expense? The two examples also illustrate the fact that the deduction for education expenses is in effect split between: (a) direct cost of the education - tuition, books, lab fees, etc., - and (b) travel, meals and lodging while away from home.

For the self-employed, both (a) and (b) are trade or business expenses and are deducted in computing adjusted gross income. That is, these expenses are deductible even though the standard deduction is taken.

In either (a) or (b), any reimbursement of expense is income. But the travel connected expenses can all be deducted in figuring adjusted gross income. The tuition expenses to the extent reimbursed are also deductible when figuring adjusted gross income. Over the reimbursed amount, they must be itemized to get the deduction.

NOTE: A current Treasury Release (TIR-76, 4/11/58) in effect treats the deduction as split between the education and the travel items. As to the education portion, it supports the procedure we've outlined. The Release is not specific on the travel portion of the deduction. But the Government publication "Your Federal Income Tax" concedes that this travel portion is deductible by an employee in figuring his adjusted gross income.

Transportation expenses: The typical situation arises when an employee goes to "night" school. Your normal daily commutation is not deductible, but it seems that the extra fares incurred because of the schooling are deductible in the same way as travel expenses.

The return: The current Release says that "A brief statement should be attached in explanation of the deduction. One important fact that always should be included is the relationship of the education to the duties of the taxpayer's employment when the educational expense was incurred."

Amended return: If, when you file your return, you claim the standard deduction, you may later file an amended Form 1040 itemizing your deductions, including your education expenses, provided you do so within 3 years from the time the return was due.

Refunds: The Treasury Release says "a separate claim (Form 843) or amended return should be filed for each year, and you should attach a statement of the facts which you think entitle you to deduct your educational expenditures. Claims for refund or amended returns must be filed within three years from the date the return was due."

Scholarships and fellowships: To the extent that a tax-free scholarship absorbs the cost, you have no expense and no deduction. But any out-of-pocket expenditures would be deductible under the rules we have discussed.

Under certain circumstances, a fellowship or scholarship results in income. In this event, the education expense deductions are an offset.
NCRS Lesson Binders

Now you can keep all of your texts neatly in order. Each text is held securely and the binder may be opened to any page in any text, yet each is instantly removable! Seven inches wide, your binder holds forty texts ready for immediate reference. This is a fine way to preserve your Camera Craftsmanship lesson books.

Price only $7.75

A ServiShops PRODUCT

EXPERT CAMERA REPAIR SERVICE

This colorful sign will tell your customers that you want their camera repair work. The sign is done in eye-catching yellow, blue and black on white background. The size is 11" by 14".

A sign for every purpose. Standard heavy board, standard heavy board with easel, and paper that can be taped to any window.

Price each in quantity 1-4 5-9 10 up
Paper 90 70 50
Board 1.00 .80 .55
Board with easel 1.10 .90 .65

May be scored for quantity price. One sign is FREE, 25¢ in color or stamps for handling and postage. No handling charge for your free sign if you order more than one.

RUSH TO THE ROCKIES

A century ago, in 1859, major gold discoveries in the Pikes Peak region sparked the great surge of pioneers... miners... cattlemen to cross the vast open plains and settle in the area which was to become, in 1861, Colorado Territory and, in 1876, Colorado.

Throughout the year 1959, Coloradans honor these hardy settlers with "Rush to the Rockies" Centennial celebrations... celebrations which point with pride to the phenomenal growth and development of the beautiful mountain state and herald the future potential of Colorado.

Visitors to the "Centennial State" in 1959 will find special events scheduled in every community. Some will highlight Colorado's remarkable growth... others will outline the history of Colorado by means of pageants and parades... many will be of international interest and acclaim... all will entertain.

No matter the day, the month, the area, there is something to interest the entire family during the 1959 "Rush".

Along with special Centennial attractions, Colorado offers its annual festivals, hunting, fishing and scenery which, year after year, earn for this remarkable state the title "Vacationer's Paradise."

Come to play... Come to stay... come to Colorado during the "Rush to the Rockies" Centennial. Write to the Editor for your official calendar of events.

Trade Notes

If your shop, through special circumstances, becomes uniquely equipped to do a particular type of job, send the information to the Camera Craftsman Editor. For the good of the camera repair trade, such items will be reported here.

Camera Repair Service, Inc., 407 Michigan Street, Milwaukee 2, Wisconsin, has acquired tools, jigs and parts inventory for Kin-Dar cameras. They can provide service for you on these cameras at moderate cost and maximum efficiency. Although parts are available to all qualified repair shops, direct from Camera Repair Service, these parts orders are difficult and costly to service because of the absence of parts lists, etc. Where possible, we recommend that you ship cameras to this organization rather than complete the repair yourself, unless the circumstances suggest otherwise.

"Most men drift. It is easier, and saves responsibility -- unless they strike a rock in the sea of life. Only those who have a port in view, and steer straight toward it, will ever arrive."
Spiral Spring Belting

Furnished in 3 ft. lengths complete with coupling, runs smooth and noiseless.

Each $8.50

Plastic Fusible Belting

Ends fuse when heated to form endless belt.

1/2" dia. — Per Ft. $8.15
3/4" dia. — Per Ft. .75
7/8" dia. — Per Ft. .50

Rust Remover

4 oz. bottle $1.76

H-R Rust Remover is non-acid, absolutely harmless to the polished finish of fine parts. You may leave parts in this rust remover overnight. You may dip parts directly into the wide mouth 4 oz. bottle.

Hard Arkansas Mounted Stones

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<th>Length</th>
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<tr>
<td>3/4&quot;</td>
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<td>1&quot;</td>
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Hard Pennknife Pieces

(Approx. 1/4 the thickness of regular stones)

2" 1.00

Servishops Headquarters are Your Specialists

Servishops Headquarters advertising is beginning to appear in National magazines. Rely on your Headquarter Shops to back up your own work. For example, electronic specialists and complete facilities here can take care of your repairs on sound equipment, electronic flash and other specialized photographic machinery.

Send repairs direct to Servishops Headquarters, Box 174 ER, Englewood, Colorado.

Hi there!

Looks like it's time to chat again. This time I really do know what to say, so guess the best thing now is to start in.

To start with, it's great to be back! I was off work here recently for quite a spell — guess I was due for a rest so I got it. Ha. This character is really feeling full of pep and vigor now (no wheaties either) and I'm just like the good ole Delphine again.

I realized a lot of "things" while I was gone and among those things found out that my job here at NCRS is what counts an awful lot to me. The type of work I do, the wonderful people here that I work with and last but not least, you students, are "My Blessing and Not My Doom".

I'll readily admit I like to be lazy — it's fun at times. Ha. But it also took me a while to recognize a curious fact: I like to work! I guess I can consider myself among the fortunate cause I found this out so early in life. A lot of people drudge on in their daily life and activities just hating every minute of it and wake up to the fact that they like to work only when the time comes to retire! Then they suddenly realize how much work has meant to them. Oh I could go on and on about this and I hope you all feel the same way as I do about this. Don't get me wrong now -- it may be completely normal not to like work but it's so much better and easier on yourself if you like your work, and if you don't, just make up your mind to enjoy it — after all there's not much we can do about it (It's later than you think!) OK?

Yep, little Jocko had a perty nice Christmas, bannannas and all the trimmins. Sure hope all of you students and your families had a nice Christmas.

I've run out of talk, now. Just getting back to work, I don't know the latest from all of you students yet but by the time my next column comes out I hope to fill it with news from the Craftsmen. How about cluing me in on stuff and things and helping me out a little next time, huh? Sure would appreciate it.

Will close for now and may God Bless and take care of each and every one of you in the year of '59.

Bye now,

Delphine
**Our Students Speak**

Someone in the family gave me a folding camera with a shutter that was not functioning properly. I took it apart completely and with the help of what I had learned in Lesson 10 had no trouble at all in understanding the disassembly. I thought that Lesson 10 was excellent as I had no trouble although I had never seen or heard of this make before. The shutter now works like it must have when it was brand new.

Chris Bosch
New Orleans, Louisiana

I realize the great value of a camera repair department in my business, so I am spending a great many hours each week on your course. In fact, I go right to work on the lessons as they come in and send them out as soon as completed. I am most anxious to get a repair department going, and am willing to devote a great deal of time to this end. Thank you again for your wonderful course and your kind assistance.

Arthur J. Jones
Glen Falls, New York

I would like to take this opportunity to thank you for your kindness and courtesies in keeping me supplied with materials for the course during these last two years. A job well done.

Oscar Schwendt
North Hollywood, Calif.

My shutter assortment kit for internal and external synch arrived a day or two ago. I like it very much and think it shows a lot of planning and careful work on the part of a fine staff.

Mal Wood
East Weymouth, Mass

I was a little reluctant to start something like this on account of my age. But with the results of the first two lessons back, I’m gaining more confidence.

Russell S. Phillips
Auburn, Washington

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**AEROTRONIC INSTRUMENTS ON CONSIGNMENT**

<table>
<thead>
<tr>
<th>Instrument Type</th>
<th>Condition</th>
<th>Price</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 103 Shutter Speed Tester</td>
<td>used 2 months</td>
<td>$85.00</td>
<td></td>
</tr>
<tr>
<td>Model 303 Movie Speed Tester</td>
<td>latest model, used 2 months</td>
<td>$55.00</td>
<td></td>
</tr>
<tr>
<td>Model 303 Movie Speed Tester</td>
<td>older model, used 2 months</td>
<td>$50.00</td>
<td></td>
</tr>
<tr>
<td>Older Movie Speed Tester</td>
<td></td>
<td>$30.00</td>
<td></td>
</tr>
</tbody>
</table>

*Only one of a kind. First come first served. See ad on Page 17.*

**SPECIAL TOOLS FOR YOUR SHOP**

1. **DEDMAGNETIZER**
   - Double Form Var coil with aluminum cover, switch, four foot cord and detachable plug. For 110 volt A.C. current only. Base 3½" x 2½".
   - Each $4.75

2. **DEDMAGNETIZER**
   - Economical model. For 110 volt A.C. current.
   - Each $4.00

3. **OILERS**
   - Simply press Lubristyl's point against spot to be oiled—oil is ejected under pressure enabling you to apply oil in hard-to-reach places. When pressure is released, excess oil is automatically sucked back into cartridge giving you perfect control for every oiling need. Leakproof, easy to fill, easy to clean—complete with protective cap.

---

THE CAMERA CRAFTSMAN JAN-FEB 1959
THESE WRENCHES are very effective tools for removing Lens and Retaining Rings that do not have built in Spanner Slots. You will not mar fine finishes or damage delicate lens mounts when you have a set of these wrenches in your kit. Available for any size diameter job.

Sizes in stock to fit:
- EASTMAN KODAK LENS CELLS
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- LEICA View and Rangefinder caps

Other sizes available on request.

Please state size or purpose required when ordering.

Popular sizes: 7/16, 1/2, 21/32, 3/4, 1-1/8, 1-1/4, 1-1/2, 1-3/4

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(Chapter News, con't.)

A student member is one who is a regular student or in training in some technical phase of photography or photo technology.

A regular member is one who is actively engaged in a technological aspect of photography. He shall be either one or a combination of the following:

a) A camera repairman: one who has performed or is performing technological work on photographic or related apparatus.

b) A technician who regularly applies photographic principles to a field not normally associated with photography.

c) An administrator or operator of an organization whose major function is concerned with photographic technology.

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MEETING HELD IN DETROIT

Sunday evening, January 11, five men, left to right in picture, Edwin Richards, Ellis Bundy, Clifford Kujawa, John Joyce, and Joseph Bronson, met at the home of Edwin Richards for discussion of desirable projects. Mr. Bundy showed a series of color slides of shutter disassemblies, which highlighted the value of photo-series that might be made by individuals and circulated or reproduced for the benefit of others.

MEETING IN PHILLY

A dinner meeting is tentatively scheduled for Tuesday evening, March 24, during the annual convention of the Master Photo Dealers' and Finishers' Association in Philadelphia. This will be an opportunity to informally meet fellow members of the craft, as well as join in a round table discussion of current camera repair questions and news. It is necessary to make advance reservations, including payment at $5.00 per plate. You'll be notified of the exact location of the meeting in Philadelphia well in advance of the scheduled time. Send in your reservations now!

There isn't much fun in medicine, but there's a good deal of medicine in fun.
You've asked for them and here they are!

*KITS NOW AVAILABLE:

*RIVET ASSORTMENT .............................. $7.50

*WIND ASSEMBLY ASSORTMENTS
  For Box Camera ................................ $6.95
  For Popular Priced Folding Camera .......... $6.95

*SYNCH INSTALLATION KITS
  External (Connectors, Insulators, etc.) .... $9.75
  Internal (Replacement Parts, contact material, etc.) .......................... $15.50

*SHUTTER BLADE ASSORTMENT ................. $6.95

FLASHCORD ASSORTMENT (6 cords) ............. $9.90

SPRING WIRE KIT
  3" each of sizes .011, .012, .018, .020, .022
  6" each of sizes .040 and .050 ............... $1.00

METRIC SCREW ASSORTMENT (400 pieces) ...... $7.50

MIRROR ASSORTMENT (6) ........................  $5.95

1/4 PRICE! YOUR TRANS-RAK, SHOWN ABOVE, COSTS YOU ONLY $1.00 WITH ANY ServiShops KIT ORDER TOTALING $20.00 OR MORE.
NEW
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CONTAINS 6 OF THE
MOST FREQUENTLY USED MIRRORS
FOR ROLEX, GRAFLEX,
AND EXAKTA CAMERAS

\[ \text{PRICE}
\]
\[ \text{\$3.95} \]

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PRICE AND PROGRESS

Price seems to have become king in many
areas of industry. In some cases there is no
longer any relation between manufacturing cost
and selling price. This situation has caused
many companies to take long hard looks at their
research and development plans because these
plans take money -- and plenty of it.

There are leaders in all the various product
lines. And these companies became leaders by
plowing back profits into better equipment, more
product research, and better development per-
sonnel. They are the ones who worked hard to
go the bandwagon moving -- a bandwagon the fol-
lowers have always been quick to jump aboard
once it was moving.

Today, because many buyers have made price
the major consideration, the progress wagon is
in danger of slowing down. There's a reason
why the recognized leaders in an industry cannot
come in with the low bid every time. That's the
price of progress. This might be a good thing to
keep in mind the next time you ask, "How much?"

WHITE SANDS CHAPTER OF SPIE ELECTS
NCRS STUDENT

The January meeting of the White Sands
Chapter of the Society of Photographic Instrumentation
Engineers resulted in the election of
officers for 1959.

An NCRS student, M/Sgt. Robert Livingston
of Holloman Air Force Base was elected Presi-
dent; vice-president, Mr. J. E. Durrenberger
of White Sands Missile Base; secretary, Paul
Travis, Holloman; and treasurer, E. R. Holst,
also of Holloman.

The meeting was the first to be conducted
under the new Charter.

Sgt. Livingston has been in Airborne Photo
Instrumentation with the U.S. Air Force since
1940 and has been associated with guided miss-
iles for several years. In a recent letter to
NCRS he wrote "the course gains in importance
to me everyday."

New Craftsmen

Karen Lou, 7 lbs, 9 oz, born December 30, 58
Mrs. & Mr. William R. Carter, Lowell, Mass.
Edwin Joseph, 9 lbs, 1/2 oz, October 11, 1958
Mrs. and Mr. Arthur E. Dawson, Omaha, Neb.
Nathan Edward, 8 lbs, 9 oz, October 4, 1958
Mrs. and Mr. Henry Bruins, Brandon, Wisc.
Laura Jean, 5 lbs, 4 oz, born October 30, 1958
Mrs. & Richard W. Wilson, Warrensburg, Mo.
Karen Elizabeth, 7 lbs, 12 oz, November 18, 58
Mrs. & Mr. John G. Costello, Millinocket, Maine
I never had much faith in correspondence schools until I enrolled with NCRS and now I am blowing the horn for home study. I believe I am learning just as much as I would at the School, the standard of teaching is plenty high. After all, we only get out of the School just what we put into it, and I am trying to put out all the way. As for instructors, I really have a tough teacher, which is just what I need to do good work.

Woodrow H. West
Rocky Mount, N. Carolina

Dear Mr. Love:

Your personal concern in a matter so trivial as mine, in my note to Mr. Curtis, certainly deserves a word of thanks.

It is nice to know that you are dealing with an organization whose Director is never so busy or important that he cannot take a few minutes of his time to comment favorably or unfavorably on the problems of his fellow craftsmen. I am certainly glad that I chose your National Camera Repair School to associate myself with, now and in the future.

Thanks, too, to the rest of your staff for the splendid help, courteous answers and information I have requested of them from time to time.

I still have a long way to go before finishing the course but it will be a pleasure, especially working with an organization such as yours.

Lorenzo W. Hall
Tampa, Florida

I take my course books along with me when I go out and study at mealtimes, on planes, while riding in snowmobiles, and just about any other place when I get a little time. I know this isn’t the approved way, but I seem to retain quite a bit and really that is all that counts. I haven’t tried it on snowshoes yet.

Dick Hetfield
( cont. page 23 )
Anchorage, Alaska

RECENT CONSIGNMENTS ACCEPTED ON SERVISHOPS ANALYZERS

There are never any trade-ins accepted on purchases of Servishops Motion Analyzers. However, it has been NCRS Supply policy to take instruments on consignment. That’s good news for those of you who would like to make an especially good “buy” on a used test instrument.

Is there some particular machine in which you are interested? Place a request. When an instrument of the type you want comes in, you’ll be told. You can even name the price you’d like to pay, if you wish. The plan makes available shutter testers, synchronization testers, contact testers and others by such manufacturers as Aerotronic, Heiland, Hickok, and NCRS.

Here are the approximate prices you may expect to pay for different makes and models of used test equipment:

- Gardner Synchrotimer____$195 to 275
- Heiland SynchroTester____80 - 120
- Aerotronic (Synch)____60 - 85
- Aerotronic (Shutter)____50 - 75
- Rush____________________50 - 75
- Hickok__________________50 - 75

This also gives you some idea of the amount you will be paid for an instrument you now own, when buying a Servishops Motion Analyzer.
YOU CAN TEST
PHOTO EQUIPMENT
IN A MATTER OF SECONDS
BOOST YOUR EARNINGS IN LESS TIME

Because your Analyzer requires fewer adjustments to make a test, you'll save time and steps on every test you make. You'll actually need up to 50% less time than you'd use on even a single, high cost special purpose instrument. You can go from test to test with no complications - and without worry about calibration or accuracy! Savings of time and an increase in accuracy guarantee you higher earnings. The most expensive thing you own is your own time! Make a shutter or synch adjustment with half the testing time and you double your earning power! Your ServiShops Analyzer means more money for you!

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SEND FOR FREE BOOKLET NOW

PRICED TO FIT YOUR POCKETBOOK
DESIGNED BY EXPERTS
PLANNED FOR YOU
BUILT TO GIVE YOU SERVICE
TESTED IN SHOPS LIKE YOURS

22 THE CAMERA CRAFTSMAN JAN-FEB 1959
Bellows (cont.)

The last 2 issues of "The Camera Craftsman" have been very good. The layout of the magazine is great—even the advertisements are interesting (at the moment there are so many small but necessary items I'd like to buy—metric screws and taps, rivet assortment, etc., that my eyes are bigger than my pocketbook). The large number of photos in each issue also appeals to me and I think everyone likes the "Our Students Speak" and "Bellows" columns.

R. M. McPhail
Barrie, Ont., Can.

Dear Mr. Fowler:

Just a short note to thank you for the job you did on my shutter and the excellent notes you sent. I haven't had a chance to disassemble it yet, but I'm sure that with your comments I will have no difficulty. I was also successful in fixing the shutter which gave me a little trouble in disassembly.

I don't know if I told you before, but I have set up a 2-1/4 square single lens reflex in the shop and intend to use it now whenever I have difficulty in understanding any particular mechanism, as you suggested in your recent letter.

Chris Bosch
New Orleans, Louisiana

Thanks for letting me know that your questionnaire showed that I pay my bills, a fact I've always taken pride in. I was about to write you concerning this as I was wondering about it. Once again, I marvel at the promptness, friendliness and helpful attitude of National Camera Repair School. I do business with many concerns and most of the time run into a widespread, general indifference. The School's attitude, exhibited in all departments, is exhilarating.

Ed Roberts
Mohawk, New York

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"Outer" 36" wide $2.20 yard
"Inner" 36" wide $2.00 yard
Discount: 1 to 4 yards - 20%
5 to 10 yards - 25%

FOCAL PLANE SHUTTER MATERIAL
42" wide $6.00 yard
Discount: 1 yard - 20%
2 to 4 yards - 30%; 5 to 10 yards - 40%
Minimum Order: 1 yard
Over 10 yards, write for special discount

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If you have a friend or relative who may be interested in the money making opportunities that exist today in the camera repair field, have him or her fill out this coupon and mail it to the National Camera Repair School, Box 174, Englewood, Colorado.
This assortment comprises a selection of lengths, head types and metals calculated for a variety of applications. Only the finest quality screws with cut threads and turned heads are supplied. Appearance, finish and fit are superior to those associated with ordinary rolled thread, struck-up head products.

Short, medium and long lengths are supplied in countersunk and flush head types in both brass and steel. The assortment is packaged in a clear plastic box. Small quantities of nuts and washers are included.

Mixture is varied as to:
- LENGTH: (Various in a range from 3/32" to 5/16")
- HEAD TYPE: (Flat, Round, Oval and Fillister)
- METAL: (Brass and Steel)
- SIZES: (Metric Assortment, 400 pieces)

$1.80 ea.

Tap Sizes:
1.0mm, 1.2mm, 1.4mm, 1.7mm

$7.50 Box

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