

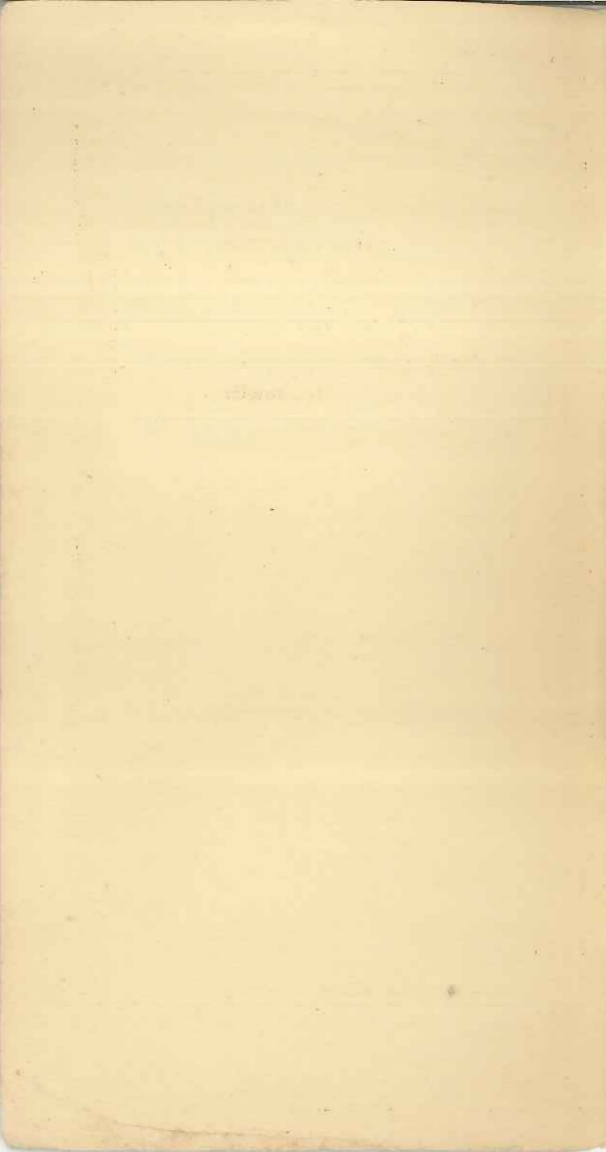
# How to Sharpen

AND WHAT  
TO USE

PIKE MANUFACTURING CO.  
Dayton Branch  
410 W. Fairview Ave.  
Dayton, Ohio



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# How to Sharpen

AND WHAT TO USE

A Book for the Mechanic  
the Farmer, the Handy Man  
and the Housewife

Prices herein subject to change  
without notice

October 15, 1928

**Pike Manufacturing Co.**

Pike, New Hampshire, U. S. A.

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## THE STORY OF OILSTONES

**I**N Egypt a few years ago a party of excavators for the British Museum unearthed a cabinet maker's tool basket. Its date, as they determined later, was about 1450 B. C.

This ancient tool kit contained such modern-looking things as chisels with wooden handles, a saw, a drill-bow and spindle, a rasp, a plummet and an oilstone as well as a horn in which to carry oil for it.

Advanced as were these implements of 3400 years ago, the art of making tools and tool metals has been steadily improving ever since—this in the case of all implements save one, the mechanic's sharpening stone.

It is hardly more than a dozen years ago that Science offered even the slightest assistance to Nature in the matter of sharpening hand tools. And even yet, when it comes to some kinds of sharpening, nothing that Science has done can approach the work of some of the old-time Natural oilstones.

Before coming into the details of "How to Sharpen," it is decidedly worth while to make the acquaintance of these old aristocrats of the oilstone family as well as of those newer members of the circle called Artificial stones.

An understanding of just how these various stones affect the steel, and of the peculiarities of the stones themselves, will make the pages on "How to Sharpen" much clearer. And such an understanding is the only guide to the selection of a stone—a matter fully as important as knowing how to use one. The Pike Manufacturing Company is the only company whose line includes practically every kind of stone, Natural or Artificial. This fact relieves us from the manufacturer's natural temptation to lean toward his own product and enables us to discuss the various types of sharpening stones with entire impartiality.

### *What Sharpening Means*

It is not merely the friction between the stone and the steel that brings the latter down to an edge. Sharpening means *culling*.

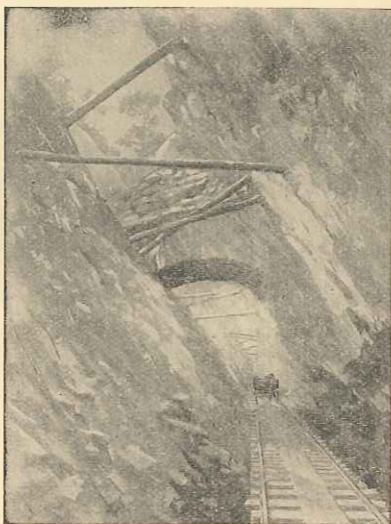
## HOW TO SHARPEN AND WHAT TO USE

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Every sharpening stone is a mass of minute crystals—infinately sharp little cutting points, each of which is harder than steel.

The coarseness or fineness of these crystals, their hardness and their brittleness or toughness—these are the things which, in various combinations, mark the differences between the several kinds of sharpening stones, making one kind better for its own purposes than another.

You would not think of sharpening a razor on a scythe stone. The scythe stone and the razor hone are the two extremes. Between them lie the various stones used in shops, as well as on the farm and in the home.



Arkansas Quarry Scene

## NATURAL AND ARTIFICIAL STONES

MODERN improvements in the hardening of tool steel brought with them new problems in sharpening. The recent advances which have resulted in the remarkably hard, sharp Artificial stones of to-day are the solution of these problems. Only in part, however, for there are still, as stated, a number of sharpening requirements for which the Natural stones are unequalled.

Apart from these few exceptional uses, the Artificial offer many advantages over the Natural stones.

### *Made in Electric Furnaces*

By scientists, the production of these Artificial stones is regarded as a triumph of the first order. It means the making by man of rock crystals which are harder than anything in Nature except the pure diamond. The Titanic magnitude of the operation may be partly understood when it is said that these crystals require for their making a temperature of 6,000 to 7,000 degrees of heat, and that this becomes possible only by the use of great electric arc furnaces, the current for which can be economically supplied only by the vast power of Niagara Falls.

There are now two important types of Artificial oilstones on the market. They are known chemically as *Carbide of Silicon* and *Aluminum Oxide*.

Aluminum Oxide is a reproduction of the natural mineral Corundum. When sold in the shape of oilstones, this artificial electric furnace corundum is known as *Pike India*.

### *Advantages of Artificial Stones*

One of the chief advantages which *Pike India* has over Natural stones is the absolute uniformity which it is possible to impart to the coarseness or fineness of the crystals. Since, as stated, the degree of coarseness is one of the prime considerations in choosing a stone, it becomes a matter of real importance to be able

## HOW TO SHARPEN AND WHAT TO USE

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to *control* this, and thus to secure a perfect stone with either coarse, medium or fine grit.

A second advantage, fully as great and possible only to Artificial stones, is the unvarying hardness and texture throughout the stone due to the scientific "bonding" together of the crystals. This makes it possible to absolutely avoid all of the soft spots, hard spots, crevices, pebbles and other defects which sometimes come to light in even the best Natural stones.

This fact also enables the user of a *Pike India* stone to buy a new stone of the same grit, with the certainty that it will be precisely what he wants, a duplicate of his former stone.

These Pike Artificial stones are superior to other Artificial stones, first, in the fact that their chemical composition *never varies* in the slightest; and, second, in the fact that in no others have the important problems of perfect "bonding" been so successfully worked out.

### *Superiority of India Stones*

The peculiarity of Carbide of Silicon crystals is that they cut extremely fast—but these crystals are very brittle. Hence, while Carbide of Silicon stones are useful for soft steel and for other uses wherein it is desirable to have a rapid breaking down of the crystals, so as to constantly present new cutting points, these stones are not so valuable for regular shop use since they wear down too rapidly to satisfactorily hold their shape.

Aluminum Oxide crystals, on the other hand, from which Pike India is made, are so extremely *tough* that, while they do not lose in fast-cutting quality, they stand up under even the hardest service.

Hence, *Pike India* stones hold their shape almost indefinitely. There is no steel too hard for them to sharpen quickly, nor hard enough to cause them to groove or wear down unevenly if properly used.

## HOW TO SHARPEN AND WHAT TO USE

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Being made in three grits—coarse, medium, and fine—there is no ordinary class of sharpening of which they cannot take excellent care.

It is this unique combination of *toughness* with extreme *hardness*—this *fast-cutting* quality coupled with the ability to always *hold its shape*—that makes *Pike India* the most widely useful sharpening stone known.

This is why in the great machine shops, one after another, *Pike India* displaces all other sharpening stones as fast as it is introduced. This is why carpenters, wood-workers and other mechanics, prefer it, and why we prefer to recommend it for every farm and household use.

Another exclusive feature of *Pike India Oil stones* is that they are *oil-filled* and by a patented process which gives them *remarkable freedom from glazing*. This makes them ready for use with only a slight application of oil, and avoids the necessity of soaking them for days in oil.

### *The Chief Natural Stones*

In spite of these superiorities of the Artificial stones, there is one Natural stone that holds its place as firmly as ever. This is that famous stone known to every user of extremely keen tools—"Arkansas." For many years the only quarries in the world extensively producing a high, even quality of Arkansas have been controlled by the Pike Mfg. Co. For this reason the choicest of these stones are known as *Pike Arkansas*.

*Pike Hard Arkansas*—No other stone, Natural or Artificial, approaches this for its particular purpose which is to sharpen tools requiring the very finest edge—such as are used by surgeons, engravers, dentists, wood and ivory carvers, and harness makers. It is sixteen times harder than marble and has a finer grit than any other oilstone, hence imparts the smoothest edge. Owing to the very limited supply of good Arkansas rock, and to the great difficulty in quarrying and manufacturing (about 90% being waste) it is necessarily very high-priced.

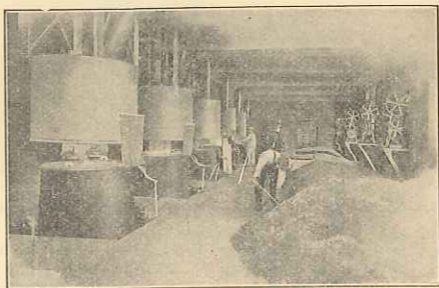
## HOW TO SHARPEN AND WHAT TO USE

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*Pike Soft Arkansas* is more porous than the Hard, and a little coarser, hence does not impart as fine an edge.

*Pike Washita*—Before the advent of Artificial stones, Washita oilstones were the favorite variety with carpenters and in wood-working shops. Although they are slow cutting stones, they will always be popular, due to their low price and to the fact that they give a long-lasting edge. *Pike Washita* comes in several grades, "Lily White" being the best selection. The "Extra" Washita is a hard, fine selection especially suited to cutlers' use. The two other grades are styled "No. 1" and "No. 2."

*Other Pike Stones*—Among other Natural stones in the Pike line are the *Queer Creek*, *Chocolate*, *Turkey*, *Hindustan* and *Sandstone*. These stones are very inexpensive, and find their chief demand among those whose tools do not require a particularly careful edge.



**Electric Furnaces at Niagara Falls**

**From the product of these furnaces the famous  
Pike India Oilstones are made**

## HOW TO SELECT A STONE

THE first thing, of course, to consider is the purposes for which the stone is to be used—whether a fast-cutting stone will be more useful to you than a slow-cutting stone that gives a finer edge.

This question answers itself as soon as you know, first, that the coarser grit a stone has the faster it cuts and, second, that *cutting edges* are classed in three groups—coarse, medium, and fine.

This does not mean that a coarse edge is not a sharp edge. The ideal edge for your very best carving knife, for instance, is a "coarse" edge—best because such an edge will do this work *perfectly*, and because to take extra time to get a finer edge on a slower-cutting stone would mean just so much time put in needlessly.

### *For Coarse-Edged Tools*

Practically all of the tools in the coarse-edged group are *knives*. One of the reasons why these do not require a fine edge is the fact that knives are always used with a diagonal, or a saw-like motion. This adds to the cutting efficiency, and at the same time the slight coarseness of edge, in its turn, adds to the sawlike effect, again making the cutting easier. These tools include canvas-cutters' knives, carpet knives, carving knives, bread knives, paring knives and kitchen, household and farm knives of all kinds, including scythes and sickles, but *not* including *tools*. Some of these knives require a finer edge than others; but all can be given the best edge for their work on a coarse stone.

### *For Medium-Edged Tools*

Medium-edged tools require more smoothness than a coarse edge affords, but yet do not need extreme fineness. Such are the tools used by most mechanics—more particularly the broad,

## HOW TO SHARPEN AND WHAT TO USE

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bevel-edged tools, like chisels, planes, draw knives and others used by carpenters and wood-workers.

The logical inference would be that to secure a medium edge one should use a stone of medium grit. This is not entirely correct. The heavy sale of medium-grit stones is due chiefly to the natural desire of the average mechanic to secure both a fast-cutting and fine enough edge from one stone. Except for special uses, the more satisfactory way is to use a *coarse* stone for rapidly cutting the edge down until it is ready to finish, and then to finish on a *fine* stone to whatever degree of fineness is desired. For this reason, a *Combination Stone*, which unites a coarse stone and a fine stone, is usually more useful than a medium stone. Combination stones are becoming more and more popular among mechanics as well as in homes and on the farm.

### *For Fine-Edged Tools*

The tools and instruments in this group are, without exception, used for highly specialized purposes. They never find a place in the home or on the farm. They are used in the professions, notably by the surgeon and the dentist, also by the scientist in preparing specimens for the microscope. They are also used by the metal engraver, by the furrier and by most workers in leather, such as harness-makers and shoemakers. Such edges when quite dull are usually brought down to comparative sharpness on a fine-grit stone, such as *Pike India*, but the finishing touches are always given on an Arkansas stone.

### *Special Shapes and Sizes*

In many trades peculiarly shaped tools make it necessary to use sharpening stones having special shapes. Many of these shapes are illustrated on pages 26 and 27.

## HOW TO SHARPEN

ONE rule that has very wide application in using cutting tools is to

### *Sharpen Against the Edge*

With two exceptions, all kinds of sharpening (both on grinders and oilstones) are performed with the edge of the tool working *against* the stone. The exceptions are: (1) when sharpening on leather, as with a razor strop; (2) when the tool itself is held still while the whetstone or oilstone is moved to do the sharpening—as in sharpening a scythe or sickle with a whetstone or in sharpening the inside of a gouge or other concave edge with an oilstone slip. The reason for sharpening against the edge is that this results in less "wire edge."

Broadly speaking, there are only two ways of sharpening tools or knives:

1. By means of a grinding wheel, as in the old-fashioned grindstone or the more modern tool grinder.

2. By rubbing or whetting the tool on some one of the many shapes and styles of oilstones, hones or whetstones.

There is no type of hand-tool for which you will not find either a Pike tool grinder or a Pike sharpening stone that is perfectly adapted to give you best results. Let us discuss first the reasons for

### *Sharpening on Grinding Wheels*

Grinding wheels have two enormous advantages: First, they cut steel fast; second, they give the tool a *concave* or hollow ground bevel. This does not mean, however, that grinding wheels can take the place of sharpening stones, the use of which is explained further on.

To-day the grindstone is being crowded out by the tool grinder, one type of which is shown on page 44.

The reason is that even a poor tool grinder cuts steel from fifteen to twenty-five times faster than a grindstone.

## HOW TO SHARPEN AND WHAT TO USE

Now about bevels: Look at the illustrations. The dotted line represents the flat surface of an oilstone or a hone. Figure One shows



Figure 1

a cross section of a hollow ground razor. Properly, all hand tools and knives must be sharpened on this same "Hollow Ground" principle to do their best

work. It is hard to see this in a knife, but easy to see it in any tool with a broad bevel, such as a chisel or draw-knife.

Figure Two is exaggerated a little to show how exactly like the razor is the *correctly* ground bevel of a chisel—both are *concave*. This concavity comes from the curve of the grinding wheel.



Figure 2

Figure Three shows an *incorrectly* ground chisel. The bevel is *straight* instead of concave. This is caused by not holding the tool in *one unchanging position* on the grinding wheel.

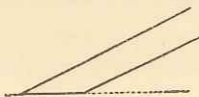


Figure 3

One object of the concavity is that it makes a *thinner* shaped wedge, hence enters wood, etc., easier than does the straight bevel.

Another object is that this hollow ground bevel will last much longer than will a bevel like that shown in Figure Three. Here is the reason for this: Figure Four and Figure Five show the hollow ground chisel and the straight ground chisel after they have been sharpened several times on the oilstone.

Note that the hollow ground chisel (Fig. 4) is still concave. It will not go to the grinder for some time. But the other (Fig. 5) is now *convex*—it works hard and slow. It should go to the grinder right away. It needs grinding much *oftener* than the chisel in Fig. 4.

The same thing is true in all other tools—even in butcher and carving knives. The *properly*

## HOW TO SHARPEN AND WHAT TO USE

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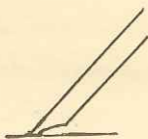


Figure 4



Figure 5

ground tool will cut better and need less frequent sharpening.

### *The Pike Bevel Guide*

Until lately it has been impossible for the ordinary tool user to get a hollow ground bevel without having the tool ground by an expert. The reason is that if the tool slips up and down on the wheel *even a little bit*, the bevel will be *straight* or *convex* instead of hollow ground.

The recently perfected Pike Bevel Guide (patented) solves this problem. This simple device makes it easy for even a beginner to get as perfect a bevel as an expert. It is fully explained on page 45.

### *The Use of Sharpening Stones*

Grinders give the correct *bevel*, but it takes the *flat* surface of an oilstone or hone to put on the finishing touches of a keen, lasting edge.

Many people lay a blade on an oilstone and proceed to sharpen it by a *circular* or *rotary* movement. With a pocket knife or other short blade, this will put on an edge in time. But straight strokes sharpen more quickly. Moreover, in the case of chisel-like tools this rotary motion constantly changes the angle at which the tool is held and prevents the edge from being true.

### *Sharpening Chisel-like Tools*

By far the greater number of the cutting tools in common use are of the chisel type.

## HOW TO SHARPEN AND WHAT TO USE

These instructions, therefore, apply with slight variation to chisels, plane-irons and all tools of this general pattern.

A tool of this type shows its dullness in the form of a thin white, or bright, line along the edge. Until the bevel-edge has become so obtuse as to need grinding (as explained before), this dullness is properly removed on the oilstone. The test of sharpness is the disappearance of the thin bright line.

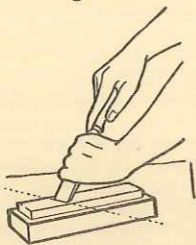


Fig. 6  
*Sharpening a Chisel*

a true sharpening angle. Swing the right arm from the shoulder, bending it only at the elbow and holding the wrist rigid. Place the edge at an oblique angle across the face of the stone, as shown by the dotted lines, and rub backward and forward, bearing down with both hands.

If the bevel has been recently ground, hold the hands low to make the oilstone bevel correspond with the grinding bevel. With each sharpening it is necessary to hold the hands a trifle higher until, finally, the oilstone bevel becomes too obtuse, when the tool must again go to the grinder. In rubbing over the stone, move the hands *hori-*

First see that the oilstone lies perfectly level to insure a true edge. Apply a few drops of oil to the stone and grasp the tool as shown in the illustrations, Figs. 6 and 7.

Note that there is no sidewise turn in the right wrist. Any twisted or turned position in this wrist is sure to give a certain amount of rolling or twist to the tool, thus impairing

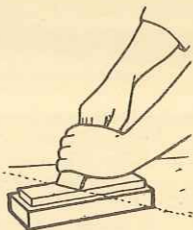


Fig. 7 *Sharpening a plane-iron*

## HOW TO SHARPEN AND WHAT TO USE

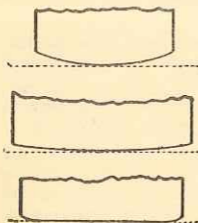
zontally—parallel with the stone—instead of giving them a dipping or scooping motion, as this latter tends to round the edge of tool and make the stone hollow out. For the same reason, it is important to use, as much as possible, the entire face of the stone, rubbing the tool over the entire length and occasionally turning the stone end for end.

When, after wiping the tool clean, you find the thin line of dullness has entirely gone, turn the tool over, *keeping it PERFECTLY FLAT* on the stone, and with one or two light, sidewise strokes remove any burr or wire edge.

The bevel angle on a chisel or gouge varies according to whether the tool is to be used regularly on hard or soft wood. A long, acute angle does not afford as much strength as does a more obtuse one. Hence, men who work in hard woods use tools that would seem to workers in soft woods to have a rather blunt bevel.

The bevel on a framing or mortising chisel must, of course, be more obtuse than that on a paring, or "firmer," chisel for the reason that in the latter there is not as much need for strength.

### *Curved Edges on Plane-Irons*



*Fig. 8 Curved edges  
on plane-irons*

To avoid leaving marks of the plane on the wood, the plane-iron should be ground to fit the tool in which it is used. (See Fig. 8.) For a single-iron jack-plane the edge should be rounded; for ordinary jack-planes, slightly rounded and for smoothing, panel and trying planes, straight except with a slight turning up of the corners. On all other planes, the edge is entirely straight.

## HOW TO SHARPEN AND WHAT TO USE

### *Sharpening a Draw-Knife*

Place the tool, bevel uppermost, with one handle flat on the bench and the other projecting over the edge so that you can grasp it firmly in the left hand. With the oilstone in the right hand, run it over the bevel, back and forth in an end-to-end direction, as in this way it is more easy to steady the stone and hold it true to the proper angle.

### *Gouges and Irregular Edges*

For good work, the bevel on a gouge must follow the curve of the tool. For this reason, it is necessary to give the gouge a rocking motion from side to side as it passes back and forth over the stone. (See Fig. 9.) The same is true in grinding. Hold the length of the gouge, not parallel with the face of the wheel, but at right angles so that the bevel is ground sidewise and rock the entire surface of the bevel back and forth on the face of the wheel. In Fig. 10 A shows the result of good, accurate sharpening, while B indicates the irregular bevel-angle caused by attempting to sharpen a gouge without enough of the rocking movement.

To take off the wire edge from, the inside, hold the gouge firmly against the bench and gently rub with a round-edge oilstone "slip." Be very careful to hold this flat against the inside of the groove to avoid turning the edge of the tool.

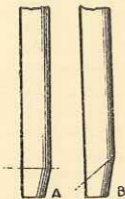


Fig. 10

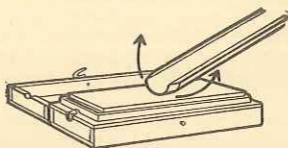


Fig. 9

*Turn the bevel while sharpening as indicated by arrows*

Gouges and other irregular shaped tools with the bevel *inside* are likewise sharpened by holding them firmly against the bench while an oilstone "slip" of the right shape is rubbed against the bevel.

## HOW TO SHARPEN AND WHAT TO USE

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The two previous paragraphs explain why it is desirable to have several slips of different shapes and sizes.

### *How to Sharpen Knives*

As stated, knives are like the chisel type of tools in that they cut better if sharpened so as to retain the wedge-form. The wedge-like angle, however, is not the main bevel extending from the back of the blade down to the edge. If it were, the whole blade would have to be held flat on the grinder wheel and this would soon grind the blade down to such thinness as to rob it of rigidity and strength. The wedge-like angle, or cutting bevel, extends back from the edge only a very short distance—rarely more than an eighth of an inch even on a large knife. Often this bevel can hardly be seen.

This means that, on the grinder as well as on a Knife Sharpener, or an oilstone, the blade is applied with its back tilted up to get the *bevel edge* flat on the stone.

Practically all mechanics' knives with straight edges are sharpened on a flat oilstone, many of the thinner blades never being put on a grinder at all.

For sharpening ordinary knives, such as used in and around the home, the best device, as before stated is a household Knife Sharpener. Because it sharpens so quickly and cannot be broken even by rough usage, the most perfect of these is the *Pike Kantbreak Knife Sharpener*.

It requires no skill and hardly any practice to get perfect results with this. Fig. 11 shows how to use it.

Holding it in the left hand with the point upward, the handle protects the hand so that one may swiftly sweep the blade downward, first on one side, then on the other, with the edge foremost. Hold the blade against the stone with the back of the blade slightly lifted

to give the right angle on the bevel. Always start each stroke at the "heel" of the blade and, sweeping down diagonally, cover the entire length of the edge from heel to point in each stroke. Do not use much pressure.

No one but a butcher should depend on a "steel"—and even he is forced to use it almost constantly to make it effective. A "steel" is only useful to add the last touch of keenness to a knife already extremely sharp.

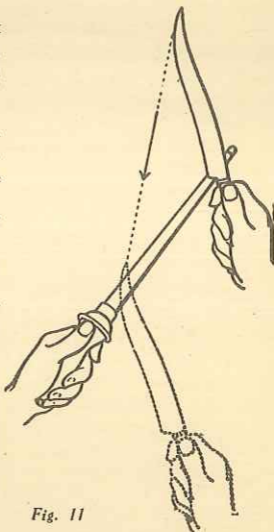


Fig. 11

### To Sharpen Scissors

With the tool-rest furnished with *Pike Peerless Grinders*, any one can easily put a perfect edge on scissors. With a little practice, almost as good a result can be secured on a *Pike Kantbreak Knife Sharpener*.

Hold the latter firmly against the edge of a table. Apply the blade to this so that the bevel lies accurately upon the face of the stone and with the blade crossing the stone at right angles. Then draw the blade smartly across the stone from heel to point. Do not run the blade back and forth—start each stroke at the heel of the blade.

### Pocket Knives, Ink Erasers, Etc.

These should be sharpened preferably on a medium or fine oilstone, or better yet, on a Pocket Knife Sharpener such as is referred to on page 33.

## HOW TO SHARPEN AND WHAT TO USE

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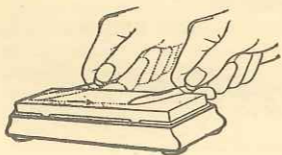


Fig. 12

and forth. (See Fig. 12.) Then reverse to the other side of the blade and repeat. With a *fine* oilstone, if the blade is sharpened thoroughly, there will be no perceptible wire edge—none at all, if it is finished on a Pike Arkansas. If it is necessary to remove all trace of burr, this may be done by stropping the blade on the coarse side of a razor strop, such as the *Pike Newshell Strop*.

Mr. Frank H. Pierce, Director of Manual Training in Pratt Institute, Brooklyn, recommends the sloyd-pattern knife for young pupils in manual training. This knife has a pronounced bevel extending midway to the back of the blade and is best sharpened by laying this bevel flat on the stone. To sharpen all the way back to the "heel" on both sides of the blade, Mr. Pierce advises first one side of the blade sharpening with the right hand and then applying the blade to the left side of the stone and using the left hand.

### *Scythes and Long Blades*

With blades like the scythe, sickle and others that are too large to be moved over the whetstone or oilstone, the blade is held firmly in the left hand and stroked along the edge with the stone—first on one side then on the other and always toward the point of the blade.

### *Augers and Gimlets*

Augers and auger-bits are often sharpened with a file. But to get a smooth edge, it is necessary to use, at least for finishing, an oilstone "slip." The two parts that get dull are the

## HOW TO SHARPEN AND WHAT TO USE

"nicker" or scoring nib, A, and the cutting lip, B, in Fig. 13. The scoring nib is sharpened only from the *inside*. Otherwise it would become smaller than the body of the bit. The cutting lip should be sharpened from the lower side, care being taken to preserve the original angle. *Pike*

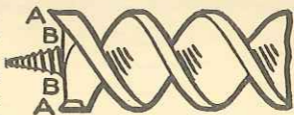


Fig. 13

*India stone No. 53* is especially shaped to get at the angles of an auger.

To restore a gimlet "fix a piece of oak about  $1\frac{1}{4}$  inch thick in the vise and make a hole  $\frac{3}{4}$  inch deep in its top with the gimlet to be sharpened. Fill the hole with flour emery, adding a few drops of oil and then reinsert the gimlet and bore down into the wood until the point shows through. Repeat for a few minutes, adding fresh emery and oil." Then repeat the process, using this time a piece of soft pine and emery without the oil.

### *Lawn Mowers*

Invert the mower. Grasp the blade near the end with the left hand and with the oilstone in the right hand run it over the bevel, back and forth, in an end to end direction, being careful to follow the bevel already established. If blades are very dull, use coarse side of *India Combination stone* (page 30) and finish with fine side.

### *Other Implements*

It is a simple matter to sharpen most household tools. A *Peerless Tool Grinder* (page 44) and an *India Combination stone* will soon pay for themselves in most homes. Besides tools, articles like garden spades, hoes and trowels, screw drivers, ice picks, axes and hatches can be kept in first-class condition at all times.

## HOW TO SHARPEN A RAZOR

**M**ORE and more men are breaking away from the old idea that only a barber can hone a razor. With a well-chosen hone and a little practice any man can save this expense and greatly add to his shaving comfort.

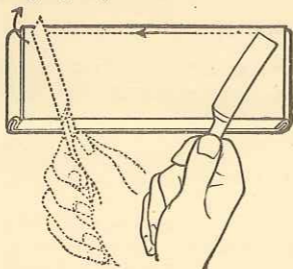
The barber finds it worth while to choose carefully between the various types of good hones.

To the home shaver, however, the difference between these is not a matter of importance. The main thing is to make sure that the hone *is* a good hone. Since even an expert finds difficulty in detecting flaws in a hone by looking at it, the only safe rule is to be guided by a long-established and trustworthy trade-mark.

Among barbers, *Pike* hones have long been outselling all others. This is perhaps the surest recommendation for the man about to buy a hone.

### *Using the Hone*

Hold the razor *perfectly flat* on the hone. The thick back takes care of the bevel. Lay the razor diagonally on the hone and draw it against the edge across the full length of the hone. Use very light pressure.



Reverse the razor at each stroke rolling it on the back and repeat the stroke in the opposite direction (See Fig. 14.)

Unless the razor is quite dull, a few strokes will make it ready for the strop.

Some hones may be used dry. On most hones, either lather, water or oil is used to prevent glazing. Do not use the hone too freely. Beyond a certain point, the edge loses its velvety smoothness. This is called "over-honing," and may be safely avoided by observing the rule, "Use the hone less and the strop more."

## HOW TO SHARPEN AND WHAT TO USE

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In stropping safety razor blades, follow the same instructions. The holder takes care of the slight bevel on the edge of these blades.

### *Using the Strop*

For either an ordinary razor or a safety blade in a holder, the action of stropping is this:

Hold the blade perfectly flat on the strop and hold the strop as *taut* and *straight* as possible to prevent rounding the bevel. Draw the razor diagonally from heel to point along the length of the strop—and *away* from the edge instead of against it. Then roll the razor on its back to reverse it and repeat the stroke in the opposite direction. *Strop lightly.*

Be sure that the entire length of the razor edge is covered during each stroke.

Most strops have a coarse and a fine side, and by using both with good judgment, it is possible to avoid frequent honing. This is particularly true with the *Pike Newshell Razor Strop* which has on its coarse side a diagonal scroll which sharpens even a dull razor with astonishing quickness.

### *A Great Thing for the Razor*

In many ways the best solution of the razor edge problem is the *Pike Strop-Hone*. In this, as shown in Fig 14, a splendid hone is on one side and a high-class strop is on the other. The hone can be used *dry* and the strop *cannot sag* and round the bevel as does an ordinary strop in the hands of an amateur.

These two points aid the amateur to avoid his two commonest troubles. The dry hone makes it an easy matter for him to give his razor two or three strokes on it *each time he shaves*. And the strop, by virtue of its perfectly straight, flat surface, enables him to give perfect smoothness to the edge with a minimum number of strokes. Thus this device keeps a razor in ideal condition all the time without the need for much practice and with the least possible outlay of time.

## HOW TO CARE FOR OILSTONES

**L**IKE anything else, an oilstone can be ruined by wrong treatment and lack of care.

There are three objects to be attained in taking good care of an oilstone: first, to retain the original life and sharpness of its grit; second, to keep its surface flat and even; third, to prevent its glazing.

To retain the original freshness of the stone, it should be kept clean and moist. To let an oilstone remain dry a long time, or expose it to the air, tends to harden it. A new stone should be soaked in oil for several days before using (this with the exception of *Pike India* as already explained). If kept in a dry place (most of them are) it should be kept in a box with closed cover, and a few drops of fresh, clean oil left on it.

To keep the surface of an oilstone flat and even simply requires care in using. Tools should be sharpened on the edge of a stone as well as in the middle to prevent wearing down unevenly, and the stone should be turned end for end occasionally.

To restore an even, flat surface grind the oilstone on the side of a grindstone, or rub it down with standstone or an emery brick.

To prevent a stone from glazing requires merely the proper use of oil or water.

The purpose of using either oil or water on a sharpening stone is to float the particles of steel that are cut away from the tool, thus preventing them from filling in between the crystals and causing the stone to glaze.

The chief exceptions to this are the scythe-stone and the household "Knife Sharpener." These are always of coarse grit, and the pressure exerted on them is light as compared with that on the flat surface of an oilstone. For this reason the steel particles are not ground into the stone and no oil or water is needed.

All coarse-grained Natural stones should be used with water. Use plenty of it.

## HOW TO SHARPEN AND WHAT TO USE

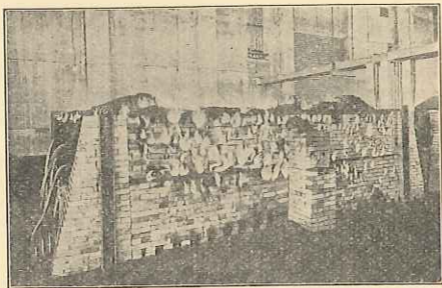
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On medium and fine-grained Natural stones, such as Pike Arkansas and Pike Washita, and on *all Artificial* stones, oil should be used always, as water is not thick enough to keep the steel out of the pores.

The most widely used oil on oilstones is *Pike Oil* made especially for this purpose. It is clear and thin, has no acid and is non-gumming and non-drying. This oil is also an ideal one for Sportsmen, Housewives, Jewelers, Carpenters, Machinists, Barbers, Motorists and Aviators.

To further prevent glazing, the dirty oil should *ALWAYS* be *wiped off the stone thoroughly* as soon as possible after using it. This is very important, for if left on the stone, the oil dries in, carrying the steel dust with it. Cotton waste is one of the best things to clean a stone with, and is nearly always to be found in a shop. Some carpenters use shavings, but they are very apt to leave the stone full of dust. A common clean rag would be better.

If the stone does become glazed or gummed up, a good cleaning with gasoline or ammonia will usually restore its cutting qualities, but if it does not, then scour the stone with loose emery or sandpaper fastened to a perfectly smooth board.



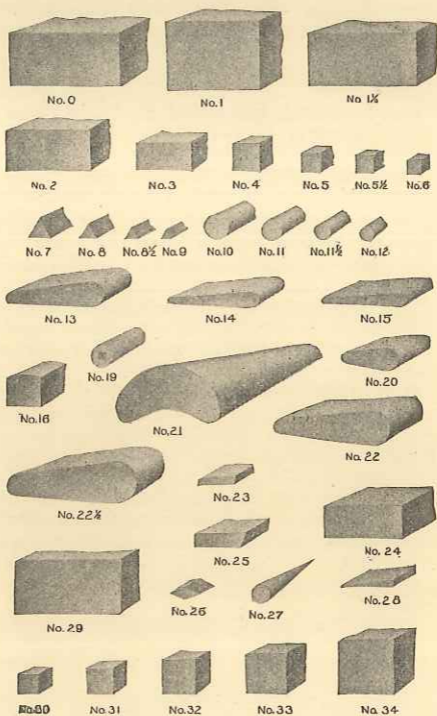
Crystolon Furnace

## WHAT YOU GAIN BY BUYING PIKE STONES

**U**NDER the Pike trade-mark may be found a stone of the right substance for any and every kind of cutting edge. It is for this reason that you can place implicit confidence in the Pike trade-mark, as we are equipped to advise you impartially and to your best interest—our line being so complete that our one desire is to assure your securing the stone most suitable for your purpose.

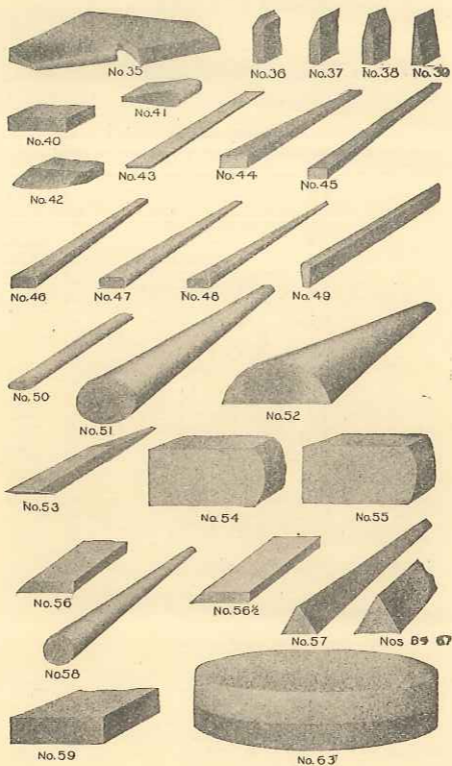
Remember, always, that whether your needs call for a natural stone, such as Arkansas, Washita, or one of the Pike Scythestones, or whether an artificial stone, like the Pike India best meets your purpose—you will find the *best* stone and the *right* stone in the Pike line—the line that for more than a century has upheld its superiority in quality, value, service and satisfaction.

# HOW TO SHARPEN AND WHAT TO USE



This and the opposite page show regular stock shapes and sizes in which India Oilstones are made.

# HOW TO SHARPEN AND WHAT TO USE



India Oilstones provide shapes for all regular and special work. For prices see next two pages

# HOW TO SHARPEN AND WHAT TO USE

## India Oilstones

Made in Coarse, Medium or Fine Grits

Shape No.	Dimensions	Price each
0	8 x 2 x 1	\$1.50
0	8 x 2 x 1 Combination	2.00
1	8 x 1 $\frac{3}{4}$ x 1 $\frac{1}{4}$	1.75
1	8 x 1 $\frac{3}{4}$ x 1 $\frac{1}{4}$ Combination	2.25
1 $\frac{1}{2}$	7 x 2 x 1	1.25
1 $\frac{1}{2}$	7 x 2 x 1 Combination	1.75
2	6 x 1 $\frac{5}{8}$ x 1 $\frac{3}{4}$	1.00
2	6 x 1 $\frac{5}{8}$ x 1 $\frac{3}{4}$ Combination	1.35
3	4 x 1 x 1 $\frac{1}{2}$	.60
3	4 x 1 x 1 $\frac{1}{2}$ Combination	.85
4	Square File 4 x $\frac{1}{2}$	.50
5	Square File 4 x $\frac{3}{8}$	.50
5 $\frac{1}{2}$	Square File 4 x $\frac{5}{16}$	.50
6	Square File 4 x $\frac{1}{4}$	.50
7	Triangular File 4 x $\frac{1}{2}$	.65
8	Triangular File 4 x $\frac{3}{8}$	.65
8 $\frac{1}{2}$	Triangular File 4 x $\frac{5}{16}$	.65
9	Triangular File 4 x $\frac{1}{4}$	.65
10	Round File 4 x $\frac{1}{2}$	.70
11	Round File 4 x $\frac{3}{8}$	.70
11 $\frac{1}{2}$	Round File 4 x $\frac{5}{16}$	.70
12	Round File 4 x $\frac{1}{4}$	.70
13	4 $\frac{1}{2}$ x 1 $\frac{3}{4}$ x 1 $\frac{1}{2}$ x $\frac{3}{16}$	.65
14	4 $\frac{1}{2}$ x 1 $\frac{3}{4}$ x 1 $\frac{1}{2}$ x $\frac{1}{8}$	.65
15	4 $\frac{1}{2}$ x 1 $\frac{3}{4}$ x 1 $\frac{1}{4}$ x $\frac{1}{16}$	.65
16	8 x $\frac{5}{8}$ x $\frac{5}{8}$	1.00
19	Engravers' Pencils, Fine one end, medium the other	.65
20	4 x 1 x $\frac{7}{16}$ x $\frac{3}{16}$	.50
21	6 x 2 x 1 x $\frac{3}{8}$ x $\frac{3}{16}$	1.50
22	4 $\frac{1}{2}$ x 2 $\frac{1}{8}$ x $\frac{5}{8}$ x $\frac{5}{16}$	1.00
22 $\frac{1}{2}$	6 x 2 $\frac{1}{4}$ x $\frac{3}{4}$ x $\frac{3}{8}$	1.25
23	3 $\frac{1}{2}$ x $\frac{3}{4}$ x $\frac{3}{16}$ x $\frac{1}{8}$	.40
24	4 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x $\frac{5}{8}$ x $\frac{5}{8}$	.75
24	4 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x $\frac{5}{8}$ x $\frac{5}{8}$ Combination	1.00
25	4 $\frac{1}{2}$ x 1 x $\frac{5}{16}$ (Reamer Stone)	.40
26	4 x $\frac{9}{16}$ x $\frac{3}{16}$	.90
27	3 x $\frac{5}{16}$ Points	.90
28	4 x 1 x $\frac{1}{8}$	.70
29	6 x 2 x 1	1.15
29	6 x 2 x 1 Combination	1.50
30	Square File 6 x $\frac{3}{8}$	.70
31	Square File 6 x $\frac{1}{2}$	.70
32	Square File 6 x $\frac{5}{8}$	.70
33	Square File 6 x $\frac{3}{4}$	.85

# HOW TO SHARPEN AND WHAT TO USE

## India Oilstones

Made in Coarse, Medium or Fine Grits

Shape No.	Dimensions	Price each
34	Square File 6 x 1	\$ .85
35	Bath Universal Slip	2.50
36	1 Set (4) Carvers' Slips	2.00
37		
38		
39		
40	2 x 1 x $\frac{1}{4}$	.35
41	5 x 1 x $\frac{5}{16}$ x $\frac{3}{32}$	.50
42	4 x 1 x $\frac{1}{4}$	.65
43	4 x $\frac{1}{2}$ x $\frac{1}{16}$	.75
44	4 x $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{5}{16}$ x $\frac{1}{8}$	.75
45	4 x $\frac{5}{16}$ x $\frac{3}{16}$ x $\frac{5}{16}$ x $\frac{1}{16}$	.75
46	4 x $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{5}{16}$ x $\frac{1}{8}$	.75
47	4 x $\frac{1}{2}$ x $\frac{3}{16}$ x $\frac{3}{16}$ x $\frac{1}{16}$	.75
48	4 x $\frac{3}{8}$ x $\frac{3}{16}$ x $\frac{1}{8}$ x $\frac{1}{16}$	.75
49	4 x $\frac{7}{16}$ x $\frac{3}{16}$ x $\frac{1}{8}$	.75
50	3 $\frac{1}{2}$ x $\frac{7}{16}$ x $\frac{3}{16}$	.75
51	Oval Plug 6 x $\frac{7}{8}$ x $\frac{5}{16}$	1.10
52	Heel Breasting Stone 6 x 2 x $\frac{3}{8}$	.70
53	Auger Bit Stone	.65
54	8 x 2 x $\frac{3}{4}$ (High Round)	1.50
54 $\frac{1}{2}$	5 x $\frac{1}{2}$ x $\frac{1}{2}$	1.00
55	4 x $\frac{1}{2}$ x $\frac{1}{2}$	.90
56	5 x 1 x $\frac{3}{16}$ (Reamer Stone)	.50
56 $\frac{1}{2}$	6 x 1 x $\frac{1}{4}$	.75
57	4 x $\frac{1}{2}$ x $\frac{1}{4}$	.75
58	4 x $\frac{1}{2}$ x $\frac{1}{4}$	.75
59	3 x $\frac{1}{2}$ x $\frac{1}{2}$ (Axe Stone)	.35
60	Circular Axe Stone, 3 x $\frac{5}{8}$	.75
61	3 $\frac{1}{2}$ x 1 x $\frac{3}{8}$	.20
62	Sportsmen's Stone } 3 x 1 x $\frac{3}{8}$ x $\frac{1}{2}$ }	1.00
63	Circular Comb. 4 x 1	1.65
64	Triangular File 6 x $\frac{1}{2}$	.85
65	Triangular File 6 x $\frac{5}{8}$	.95
66	Triangular File 6 x $\frac{3}{4}$	.95
67	Triangular File 6 x 1	1.10
68	4 $\frac{1}{2}$ x $\frac{3}{4}$ x $\frac{5}{16}$	.35
	Engravers' Chuck	1.00
	Points, 1 x $\frac{1}{8}$ per dozen	1.45
	Wood Boxes (each list)	.40
	Metal Box for No. 0	1.00
	Metal Box for No. 1 $\frac{1}{2}$	1.00
	Metal Box for No. 2	.75
	Metal Box for No. 29	.75

## HOW TO SHARPEN AND WHAT TO USE

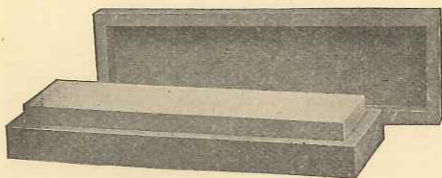
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### India Combination Stones

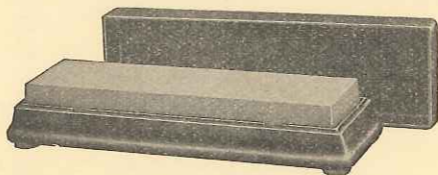
This combination possesses the advantage of two stones in one—coarse side for very dull or badly nicked tools and a fine side for finishing edge. The two grits are vitrified, not glued together, making solid stones.

No. 0	8 x 2 x 1"	\$2.00 each
No. 1	8 x 1 $\frac{3}{4}$ x 1 $\frac{1}{4}$ "	2.25 "
No. 1 $\frac{1}{2}$	7 x 2 x 1"	1.75 "
No. 2	6 x 1 $\frac{5}{8}$ x $\frac{3}{4}$ "	1.35 "
No. 3	4 x 1 x 1 $\frac{1}{2}$ "	0.85 "
No. 24	4 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x $\frac{5}{8}$ "	1.00 "
No. 29	6 x 2 x 1"	1.50 "



### Wood Mountings

Will keep stones clean and in good condition, thus prolonging the life of the stone. These mountings are of solid oak and are supplied for shapes Nos. 0, 1, 1  $\frac{1}{2}$ , 2, and 29. Price 40c. each.

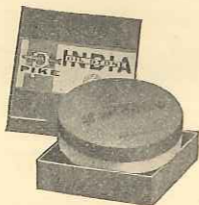


### Metal Boxes

Four rubber feet prevent slipping on bench. Felt pad absorbs surplus oil and keeps the stone ready for use. Metal boxes are furnished for shapes Nos. 0, 1  $\frac{1}{2}$ , 2 and 29.

# HOW TO SHARPEN AND WHAT TO USE

## India Circular Combination



A novel and practical shape designed for tools requiring straight edges. It presents a breadth of surface which eliminates the necessity for constant wear in one spot.

No. 63, 4 x 1" combination grits \$1.65

## India Oilstone Wheels

For all kinds of small lathes used for fine grinding and sharpening, such as dentists, jewelers and others use in their regular work. Made in *coarse, medium or fine* grits. These wheels are not carried in stock, but are made up special on receipt of order. From five to six weeks required for delivery.

Diameter Inches	THICKNESS OF WHEELS IN INCHES					
	1/4	1/2	3/4	1	1 1/2	2
1	\$ .90	\$ 1.10	\$ 1.25	\$ 1.45	\$ 1.80	\$ 2.15
1 1/2	1.10	1.45	1.60	1.80	2.15	2.50
2	1.25	1.80	2.15	2.50	2.90	3.25
2 1/2	1.45	2.15	2.50	2.90	3.25	3.80
3	1.80	2.50	3.05	3.60	4.05	4.50
3 1/2	2.15	2.90	3.60	4.30	4.95	5.40
4	2.50	3.25	3.95	4.70	5.40	6.10
4 1/2	2.90	3.60	4.30	5.05	5.75	6.65
5	3.25	3.95	4.70	5.40	6.10	7.00
6	3.80	4.50	5.20	5.75	8.30	10.60
7		5.85	7.20	8.55	10.35	13.65
8		7.00	8.10	10.10	12.60	16.20
9		8.30	9.60	12.15	16.00	21.60
10		9.90	11.25	13.95	18.70	25.20
12		12.60	15.30	19.80	27.00	31.80

Wheels between above diameters or thicknesses take price of next larger size.

Special shaped faces or special grits subject to special prices, quoted on application.

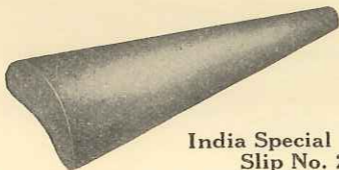
Extra Fine grade and Surgeon's Hone material also supplied. Quotation on request.

India Wheels not subject to return or cancellation.



## HOW TO SHARPEN AND WHAT TO USE

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**India Special Gouge  
Slip No. 21**

For all curved cutting edges and for smoothing curved surfaces. Size  $6 \times 2 \times 1 \times \frac{3}{8} \times \frac{3}{16}$ ". Special fine grit only. Price \$1.50 each.



**India Number 16**

An all-around general-purpose stone used by lastmakers and in all kinds of wood-working plants; also for sharpening cutting room dies in shoe shops, glove factories, etc. Size  $8 \times \frac{5}{8} \times \frac{5}{8}$ ". Price \$1.00 each.



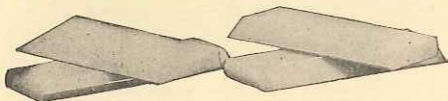
**India Amazeen Stone No. 42**

For sharpening knives of Amazeen Skiving Machines. Size  $4 \times 1 \times \frac{1}{4}$ ". Price \$0.65 each.



**India Engravers' Pencil**

For all engravers' tools and for marking metals. One end fine grit, the other medium. Size  $7'' \times \frac{5}{8}''$ . Price \$0.65 each.

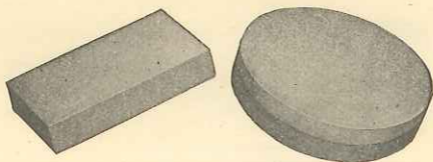


**India Carvers' Slips Nos. 36-39**

For carvers of wood or ivory, engravers, metal chasers, etc. Four shapes in set. Size each  $2\frac{1}{2} \times \frac{7}{8} \times \frac{3}{16}$ ". Price per set of four \$2.00.

## HOW TO SHARPEN AND WHAT TO USE

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### India Axe Stones

Two styles supplied—No. 59 Rectangular and No. 60 Round. The round stone is a pocket fitting combination stone, one side for fast cutting, the other for finishing. Cuts many times faster than the grindstone and sets equally as good an edge.

No. 59, One grit only, $3 \times 1\frac{1}{2} \times \frac{1}{2}$ "	\$0.35
No. 60, Combination 3" diameter,	0.75



### India Pocket Stones No. 61

The man who owns a pocket knife and the woman who owns a pair of scissors should have one of these pocket stones. Puts a dandy keen edge on all kinds of small tools. Invaluable in the office for ink scratchers and for removing ink stains from fingers. Will also remove nicotine stains. Price \$0.20 each.



### Machinists' Special Stone

No. 68—This stone is especially adapted to sharpening lathe and planer tools, milling cutters, reamers and drills. It is also the right size for use in many of the automatic jointing machines universally used in the wood-working industry. It will stand up to its work, last longer and cut faster than any other stone on the market.

## HOW TO SHARPEN AND WHAT TO USE

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### Sportsman Stones

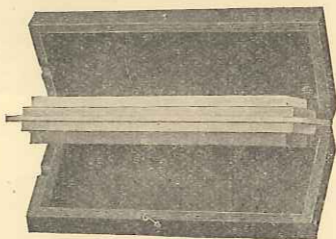
Tools for sport, like tools for work, are doubly valuable if kept in condition. A Sportsman stone is indispensable around the camp for sharpening all kinds of dull edges and repointing fish hooks, gaffs, etc. All lovers of outdoor sports should have one. Made in two different styles, all possessing the combination feature: i. e., two stones in one—coarse and fine grits—and supplied with a soft, strong, pocket-fitting leather case.

### Pike Sportsman Stone

A fast cutting India on one side and fine Washita on other. Size  $3 \times 1\frac{3}{8} \times \frac{1}{2}$ ". \$0.50 each.

### India Sportsman Stone

Same style as regular Combination India Bench Stones. Size  $3 \times 1\frac{3}{8} \times \frac{1}{2}$ ". \$1.00 each.



### Pike Reversible Oilstone

Designed especially for the man who takes pride in his tool outfit. Two stones in one splendid mounting; either stone ready at an instant's notice. Mounting also insures proper care of stones, keeping them out of dirt and dust and properly oil-moistened. Regularly supplied with India and Lily White Washita stones, each  $7 \times 2 \times \frac{5}{8}$ ", price \$3.50 each.

## HOW TO SHARPEN AND WHAT TO USE

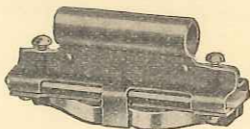
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### Pike Oil

An oilstone to give perfect results requires just as much attention as the most expensive tool. To prevent small particles of steel lodging in the pores of the stone, a thin, free-flowing, non-gumming oil is necessary. Heavy oil will gum up and eventually cause the stone to glaze. Pike Oil meets every requirement. It is perfectly pure, acidless and non-gumming and if used regularly will prolong the life of an oilstone indefinitely. Beside being the best for oilstones, Pike Oil is the *greatest all-around lubricant* on the market. It can be used with entire satisfaction for cleaning and polishing furniture or for lubricating all sorts of articles around the home, office, shop, camp or farm. As a rust preventive for firearms and other metal articles, it is unexcelled. It is also used extensively on phonographs, motion picture machines, and monotype and linotype machines. Sold regularly as follows:

3-oz. cans	\$0.30 ea.	Half gallon cans	\$1.75 ea.
1-qt. bottles	1.00 ea.	One gallon cans	3.00 ea.



### Pike Perfect Saw Jointer

An efficient device which joints saws of any thickness perfectly true; gives excellent satisfaction as a skate sharpener and for any kind of straight edge filing. Adjustable jaw opens to a width of  $\frac{3}{4}$ ". Made of steel and is practically indestructible. Price \$0.75 each.

# HOW TO SHARPEN AND WHAT TO USE



## Pike Arkansas Stones

This is the one abrasive that is hard enough and fine enough to remove even the last microscopic trace of burr from the cutting edge. Comes in two grades, Hard and Soft. *Hard Arkansas* is used by surgeons, histologists, students of anatomy and biology, engravers, carvers of ivory, etc., watch-makers, dentists, chiropodists, manicurists, cutlers and makers and users of fine tools.

*Soft Arkansas* is not quite so fine grained and hard. It is especially adapted for sharpening tools of wood carvers, file makers, pattern makers and all workers in hard wood.

Size	Dimensions	Price Each	
		Hard	Soft
5	$4\frac{3}{4}$ - $5\frac{1}{2}$ x 2 x $\frac{3}{4}$ -1"	\$3.60	\$1.25
6	$5\frac{3}{4}$ -6 x 2 x $\frac{3}{4}$ -1"	6.00	2.00
7	$6\frac{3}{4}$ -7 x 2 x $\frac{3}{4}$ -1"	7.00	2.75
8	$7\frac{3}{4}$ -8 x 2 x $\frac{3}{4}$ -1"	8.00	3.25

## Hard Arkansas Mounted

Size	Price Each
5 x 2"	\$3.00
6 x 2"	4.25
7 x 2"	5.00
8 x 2"	5.75

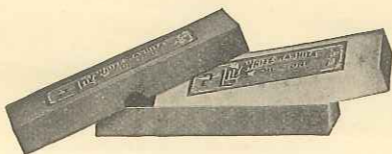
## Hard Arkansas Round Edge Slips

Size 3	$2\frac{3}{4}$ - $3\frac{1}{2}$ x $1\frac{3}{4}$ -2 x $\frac{1}{4}$ - $\frac{3}{8}$ x $\frac{1}{16}$ - $\frac{1}{8}$ "	\$1.00 each
" 4	$3\frac{3}{4}$ -4 $\frac{1}{2}$ x $1\frac{3}{4}$ -2 x $\frac{3}{8}$ - $\frac{1}{2}$ x $\frac{1}{8}$ - $\frac{3}{16}$ "	1.50 "
" 5	$4\frac{3}{4}$ -5 $\frac{1}{2}$ x $1\frac{3}{4}$ -2 x $\frac{3}{8}$ - $\frac{1}{2}$ x $\frac{1}{8}$ - $\frac{1}{4}$ "	2.00 "

## Hard Arkansas Penknife Pieces

Size 3	3 x 1 x $\frac{1}{4}$ - $\frac{3}{8}$ "	\$0.50 each
" 4	4 x 1 x $\frac{1}{4}$ - $\frac{3}{8}$ "	0.75 "
" 5	5 x 1 x $\frac{1}{4}$ - $\frac{3}{8}$ "	1.25 "

## HOW TO SHARPEN AND WHAT TO USE



### Lily White Washita Bench Stones

For efficient tool sharpening many prefer Washita Oilstones, which, when properly selected, give excellent satisfaction, although not cutting as rapidly as artificial stones. Washita is somewhat similar to Arkansas, but is much more porous, hence a faster cutter. Pike Lily White Washita is recognized as the best natural stone for giving a long-lasting edge to general wood-working tools.

Size	Dimensions	Price Each
5	$4\frac{3}{4}$ - $5\frac{1}{2}$ x 2 x $\frac{3}{4}$ -1"	\$0.50
6	$5\frac{3}{4}$ -6 $\frac{1}{2}$ x 2 x $\frac{3}{4}$ -1"	0.75
7	$6\frac{3}{4}$ -7 x 2 x $\frac{3}{4}$ -1"	0.85
8	$7\frac{3}{4}$ -8 x 2 x $\frac{3}{4}$ -1"	1.25

### Lily White Mounted

Size	Price Each
5 x 2"	\$0.60
6 x 2"	0.90
7 x 2"	1.20
8 x 2"	1.50

### Lily White Round Edge Slips

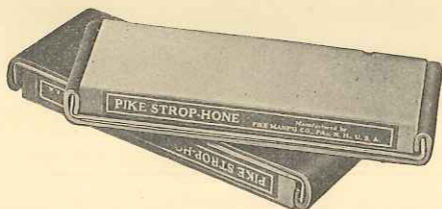
Size 3	$2\frac{3}{4}$ - $3\frac{1}{2}$ x $1\frac{3}{4}$ -2 x $\frac{3}{8}$ - $\frac{1}{2}$ x $\frac{1}{8}$ - $\frac{1}{4}$ "	\$0.20 each
" 4	$3\frac{3}{4}$ -4 $\frac{1}{2}$ x $1\frac{3}{4}$ -2 x $\frac{3}{8}$ - $\frac{1}{2}$ x $\frac{1}{8}$ - $\frac{1}{4}$ "	0.30 "
" 5	$4\frac{3}{4}$ -5 $\frac{1}{2}$ x $1\frac{3}{4}$ -2 x $\frac{3}{8}$ - $\frac{1}{2}$ x $\frac{1}{8}$ - $\frac{1}{4}$ "	0.40 "

### Lily White Penknife Pieces

Size 3	$2\frac{3}{4}$ - $3\frac{1}{2}$ x 1 x $\frac{1}{4}$ - $\frac{3}{8}$ "	\$0.15 each
" 4	$3\frac{3}{4}$ -4 $\frac{1}{2}$ x 1 x $\frac{1}{4}$ - $\frac{3}{8}$ "	0.20 "
" 5	$4\frac{3}{4}$ -5 $\frac{1}{4}$ x 1 x $\frac{1}{4}$ - $\frac{3}{8}$ "	0.25 "

## HOW TO SHARPEN AND WHAT TO USE

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### Pike Strop-Hone

The Strop-Hone will make your razor behave, not *part of the time*, but *all of the time*. You can make *every* shave as cool and comfortable as the *best* shave you ever had. The hone is to be used dry and the strop is a dandy—it takes right hold. It is held flat and taut which keeps it from sagging and rounding the bevel of your razor. (See page 22 for further description.)

Size  $5\frac{3}{4} \times 2 \times \frac{5}{8}$  Price, \$1.00 each



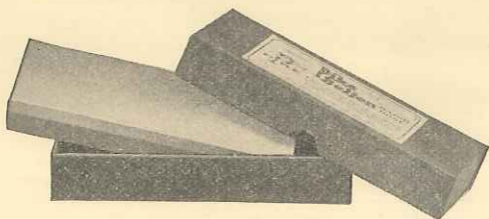
### Ezy Edge Razor Hone

A first-class finishing hone suitable for amateur or professional users. The material is selected from the finest natural products. It is made by a process which secures absolute evenness of grit and texture throughout. No other hone at the same price, imparts that fine "gummy" edge to a razor which is so much to be desired.

Size,  $5\frac{1}{4} \times 2 \times \frac{1}{2}$  Price, \$0.75 each

## HOW TO SHARPEN AND WHAT TO USE

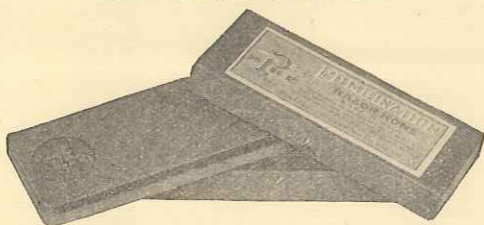
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An American made barber's hone which cuts rapidly but gives an edge equal to the natural Belgian. Very fast-cutting when used dry or with water. Free use of oil or lather will reduce its rapidity of action if found too fast-cutting. The honing top is made from finest water-floated grains insuring absolute uniformity. To give strength this top is secured to a slate-like base which acts as a support to the softer top. Made in five sizes as follows:

4 x 2"	. . . . .	\$0.50 each
5 x 2"	. . . . .	0.75 "
6 x 2"	. . . . .	1.00 "
7 x 2"	. . . . .	1.25 "
8 x 2"	. . . . .	1.50 "

### Combination Razor Hone



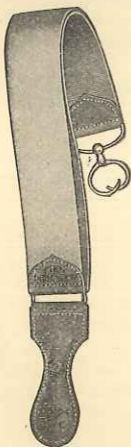
Two hones in one. The dark surface is rapid cutting and the other side slightly slower for finishing. Neither side gives a harsh, wiry edge. When a razor leaves this hone it is ready for the face with but little stropping. A particularly nice article for the amateur user.

Size  $4\frac{3}{4}$  x 2"

Price \$0.60 each

## HOW TO SHARPEN AND WHAT TO USE

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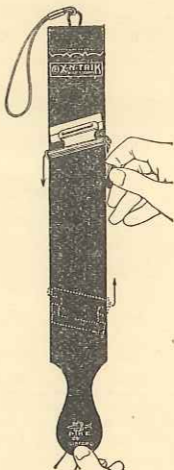


### Newshell Razor Strop

The strop with the Velvet Touch. Beautifully finished, ready for instant use without a bit of preliminary breaking in. Each strop really consists of two strops. The sharpen or fast-cutting strop has the fancy diagonal scroll which helps the amateur get the real barber's diagonal stroke. The other strop or finish strop has a delightful velvety touch which gives a dandy, keen edge. Prices range from fifty cents up. Illustrated strop catalog sent free on request.

### Pike Blade Stropper

Strops any popular safety blade to hair-splitting keenness. Nothing complicated to bother the mechanically blind. Has a scientific wiggle all its own which permits the user to obtain without practice that much desired draw or diagonal stroke so common among barbers. The user obtains this stroke in spite of himself. He cannot go wrong. It not only cuts down blade expense but increases shaving comfort remarkably. Price \$1.00.



## HOW TO SHARPEN AND WHAT TO USE

### India Breaker-Point Stone

The very soul of a motor lies in its ignition system. If your car is lazy or hard to start, nine times out of ten the trouble is in the points on your distributor head.

The old way of fixing these points was to scratch them one at a time with an ordinary file, which besides wasting expensive material, left the surface rough and uneven.

The new and up-to-date method of keeping both points clean and bright, thus assuring a hot, even spark all the time, is to touch them up with a Pike India Breaker-Point Stone.

This is a wonderfully simple method and anybody, skilled or unskilled, can do it. The remarkable cutting qualities of the India stone enable it to remove deposits or pitting with a very few strokes. A half dozen or less strokes will generally restore the points to original factory condition. In addition to this, the parallel surfaces of the stone insure perfect alignment of points. Every car owner, every motor boat fan, and every repairman who has to do with either, should add one to his kit. It will be found indispensable.



FULL SIZE

Price, \$0.25 each

### Kantbreak Knife Sharpener

(Patented)

Indispensable to the housewife and the man who carves.

Dropping it won't break it. The Kantbreak is practically indestructible, as it is protected by rubber mountings at every point where it might come in contact with the floor if accidentally dropped. It is also strengthened further by a steel rod running its entire length.

The housewife will find it invaluable for sharpening bread, meat, fish and cake knives, scissors, etc., and it will also take away that dread of carving most men have.

The Kantbreak is much better than a steel—much quicker and easier—just a few strokes will give a fine finished edge. Its cost is small and will save a great deal of money you would otherwise pay for sharpening.

The Kantbreak is also a money saver for the butcher and market man and for the hotel and restaurant keeper, as it does away with a great many trips to the knife grinder.

Length, 15" over all. Price \$0.50



## HOW TO SHARPEN AND WHAT TO USE

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### Pike Carvo Knife Sharpener

The Pike Carvo Knife Sharpener is designed especially for carving knives, but it will be found extremely useful for keeping a keen edge on all kinds of knives around the dining room and kitchen. It is made from an exceptionally fine grade of abrasive material which is reinforced by a steel rod running its entire length giving it great strength and rigidity. The handle is finished in Tuscan rosewood which, in conjunction with the rich color of the sharpening material, makes it an article of particular attractiveness.

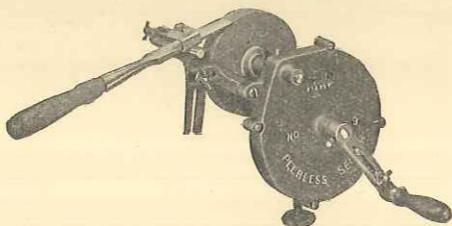
Price \$0.35 each

### Quickcut Knife Sharpener

The Quickcut is an inexpensive but very serviceable knife sharpener. While not finished so nicely as the Pike Carvo yet it possesses considerable merit especially for sharpening kitchen knives. It consists of a shaft of keen cutting abrasive material, firmly secured to a neatly finished handle by means of a steel rod which runs its entire length and adds much to its long life and durability. It should not be confused with many cheap knife sharpeners on the market, as in its particular class there is nothing that surpasses it.

Price \$0.20 each.





### Pike Peerless Tool Grinder

Tool grinders are taking the place of grindstones because they make sharpening so quick and easy. They are selling by thousands to mechanics, farmers, and housewives—to business men who like to work with tools—to butchers, barbers, restaurants, and small shops. *Any* grinder is quicker and better than a grindstone.

Pike Peerless grinders are made in two models: i. e., *Senior* and *Junior* both of which are powerful, high speed, smooth running, compact machines. They mark the acme of perfection in present day construction of hand-power grinders. Both models have an extension crank handle, making easy work of the most awkward job. The *Senior* is especially adapted to machine, blacksmith and wheelwright shops, garages, lumber yards and farms. It is regularly equipped with a 6 x 1 1/4" grinding wheel. The *Junior* is an exact duplicate of the *Senior* except that it is smaller—just right to pack in a tool kit. It is regularly equipped with a 5 x 1" grinding wheel and is designed especially for households, hotels, offices, stores, meat markets, restaurants and small workshops of all kinds.

Price:	Senior,	\$12.00
	Junior,	9.00

Foot power on either model extra,	\$2.50
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Extra Grinding Wheel Senior,	3.25
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“ “ “ Junior,	2.25
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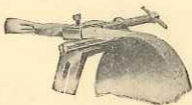
Other Pike Grinders from \$3.00 to \$18.00

### The Easy Way to Get a Hollow-Ground Bevel

To make a dull tool as good as new by giving it a hollow-ground bevel—to do this surely every time and to do it easily, without trouble and without practice—you must have a grinder



*Figure 1*

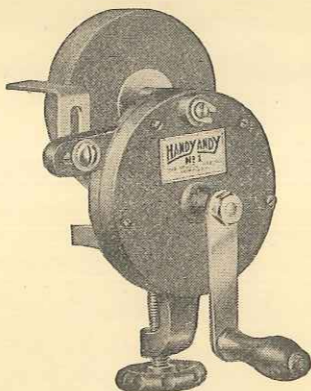


*Figure 2*

with a *Pike Bevel Guide*. This guide is an exclusive feature of the Peerless Senior and the Peerless Junior grinders described on previous page. Other models of Pike grinders are made without the Bevel Guide, but are furnished with a very satisfactory tool rest.

The pictures show clearly the operation of the Pike Bevel Guide.

Fig. 1 shows the tool holder with adjustable screws to take any size of chisel, plane-iron, etc. Fig. 2 shows the chisel ready for grinding. The tool holder slides back and forth in the groove and after being adjusted to proper bevel angle it is impossible to make the grinder give you anything but a perfect hollow-ground bevel.



### Handy Andy Tool Grinder

A small but efficient tool grinder built especially for the man who likes to play with tools. For those little jobs of grinding and sharpening which crop up daily round the home and garage, the Handy Andy is unexcelled.

It is also just the right size for the carpenter or general repairman to take around from job to job. It is light-weight, very powerful for its size, and takes little space in the tool kit.

There is nothing cheap about the Handy Andy, except the price. It is a smooth-running, strongly built machine and will give years of satisfactory service. It has machine cut helical gears and is equipped with a genuine Corundum Vitri-fied grinding wheel, and will do the thousand and one jobs such a machine is called upon to do, rapidly and efficiently.

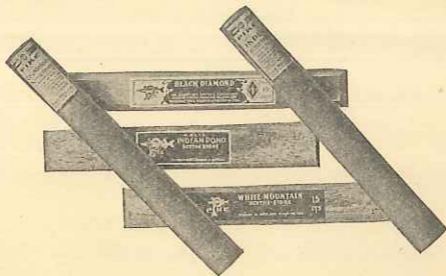
Price with 4 x 1" grinding wheel	\$3.00 each
Price with 5 x 1" grinding wheel	3.50 "
Price with 6 x 1" grinding wheel	5.50 "
Price with 7 x 1" grinding wheel	6.00 "

## HOW TO SHARPEN AND WHAT TO USE

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### Some Leading Pike Scythestones

The scythestones described on this page are the most popular and best selling stones in a line embracing nearly fifty different varieties.



#### India Scythestone

A splendid vitrified stone, round oval in shape and manufactured by the India process which secures absolutely uniform grit. One of the best stones made for scythes, grass hooks, carving and kitchen knives and all kinds of edge tools used around the home and farm. Price \$0.30 each.

#### Quickcut Scythestone

A very serviceable stone made from extremely fast-cutting material. It is strengthened by a steel rod which extends its entire length. Price each \$0.15.

#### Black Diamond Scythestone

The most popular *natural* grit scythestone ever quarried. Very fine gritted, but is extremely sharp and fast cutting, giving a fine, lasting edge. Flat octagon in shape. Price \$0.20 each.

#### White Mountain Scythestone

Selected from fine grain New Hampshire stock. Oval in shape, with square edges, and is a very efficient sharpener for kitchen knives, and farm tools, as well as for scythes, grass hooks, etc. Price \$0.20 each.

#### Indian Pond Scythestone

This stone has been on the market for nearly 100 years. It is known and sold in every part of the world. This is the original Pike Red End and is made from stock which gives a medium-coarse edge. Price each \$0.15.

### Your Dealer Will Get It for You

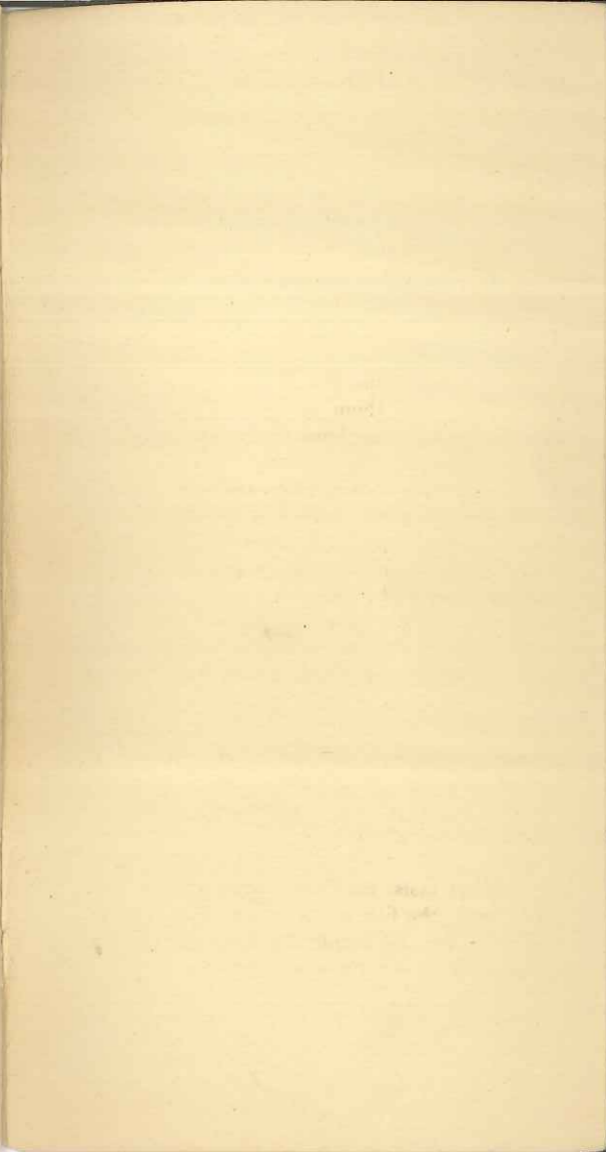
Pike Sharpening Stones are carried in stock regularly all over the world by nearly all leading hardware and tool stores, in many sporting goods stores, and by barber supply dealers.

\* There are so many different kinds of Pike stones, however, that few dealers find it advantageous to keep them all, generally confining their stock to those lines for which there is a steady demand in their particular section.

If you have become interested in some article described herein, take this booklet to your dealer, pointing out whatever you desire to obtain. If it isn't in stock, he will no doubt be glad to order it for you, thus saving you the trouble and bother of writing direct.

Our goods are sold through the regular trade channels and the only exception we make to this rule is where dealers absolutely refuse to take care of individual wants of customers like yourself or where customers are located in sparsely settled districts and there is no dealer carrying our goods. In such cases we will ship goods at catalog prices and pay transportation charges.

Always insist on Pike goods. Look for our trade-mark, the fish in the letter "P." Behind it stands over one hundred years' experience in the sharpening stone business.



**"PICK A PIKE"**

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## **GUARANTEE**

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**Your dealer is authorized to  
replace any Pike Sharpening  
Stone that proves defective.**

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