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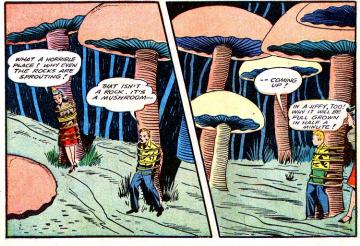




































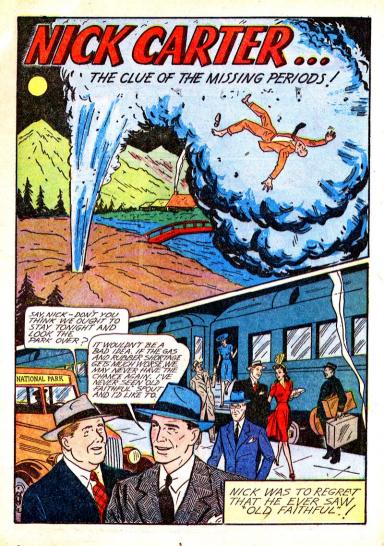






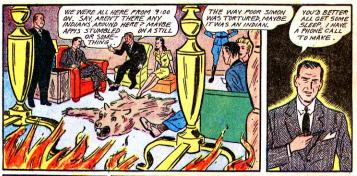
























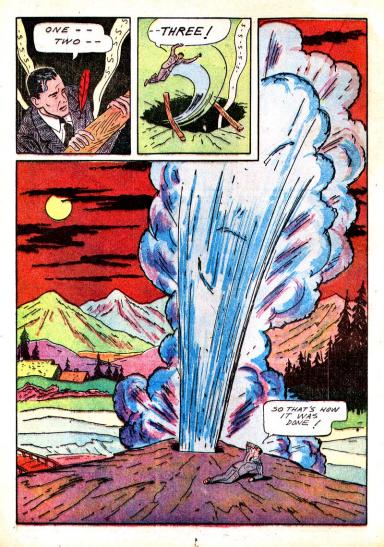






















I KNOW WHO THE KIL-LER IS AND WHY THE MURPERS WERE COM-MITTED. LET'S GO...







YES, BUT NOT WITH A LEFT-HANDED THREAD. BULBS LIKE THESE ARE USED IN THE SUBWAYS OF NEW YORK SO THAT IF THEY'RE STOLEN THEY CAN'T BE USED IN THE RIGHT-HAND THREADED SOCKETS IN PEOPLE'S HOMES .







YOU BOUGHT AND I ALMOST THEM FOR A THIRD THE NORMAL PRICE YOU MEANT TO POCKET THE DIFFERENCE BE-TWEEN THE CHEAP JAP PRICE AND THE COST OF AMERICAN MADE BULBS. NO BOARD WOULDSTAND FOR FOR THAL

MARRIED THAT. WHAT ARE YOU YELLING ABOUT ?

I AM MARRIED TO HIM . . YES .

BE A WIDOW SOON

WALSH, YOU KILLED SLADE AND APPIS BECAUSE THEY FOUND YOU HAD BOUGHT A \$ 100,000 WORTH OF JAP BULBS BEFORE THE WAR. THE JAPS NAMED A JAPANESE
TOWN USA - SO THAT THEY COULD
STAMP "MADE IN USA" ON ARTICLES.
THE ONLY DIFFERENCE IS BETWEEN
USA AND U.S.A. THE BOARDKNEW NOTHING OF THIS.



















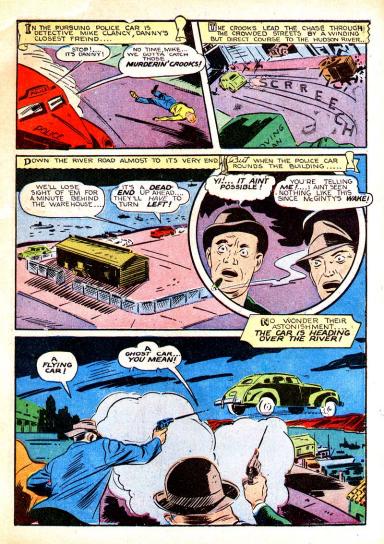








































THE BUBBLE KING IS ATTACKING! EVERY MAN TO THE WALLS!

























FLIP! IMPIE! PEPPY!
WHERE ARE YOU?
OH...OH...I'M ONLY
IN BED, DREAMING!



SECRET CODES

By HENRY LYSING

NOTED EXPERT ON CODES, AUTHOR OF "SECRET WRITING,"
"THE CRYPTOGRAM BOOK," ETC., CONDUCTOR OF THE "CODES"
DEPARTMENT IN THE SHADOW MAGAZINE; TECHNICAL DIRECTOR
OF COLUMBIA'S GREAT CHAPTER PLAY, "THE SECRET CODE."

(Editor's Note-This is the first of a series of lessons in secret codes which Mr. Lysing will continue in future issues of The Shadow Comics. Mr. Lysing is undoubtedly the country's most famous code expert, and through his books, magazine articles, lectures, is one of the first authorities to make this intriguing game of codes appeal to popular fancy. He has taken codes out of the grim business of military technicalities to make it an intriguing and interesting game for people of keen minds, young and old; and to make all of us more aware of the possibilities for helping our country in the present need. It is a stimulating hobby which all of you will enjoy, and some of you may find of great help to our country.)

Lesson One

When we start our interest in codes as a hobby, as a way of getting plenty of entertainment, of sharpening our minds, and also of possibly getting much practical benefit by our ability in communicating secretly with others or perhaps intercepting secret messages which enemies of our country may be using!—we have to do exactly as we would do in the case of taking up any other study or hobby. We have to know what materials we work with, and to what end we can make these materials work for us.

Codes are secret communication. We communicate by means of language; by means of signs; by means of words and letters. Therefore, the alphabet is our means of work, for it is the base of all communication. Secondary to this are numerical units. Finally come pictures or symbols which can take the place of words and serve the same purpose.

Therefore, first let us make ourselves alphabet "slides" so that our work hereafter will be much easier by having handy equipment.

All you have to do is get yourself clean strips of paper, or preferably cardboard, so that they will be easier to handle and last longer, and on this mark off a double alphabet in its regular sequence. Make your alphabet in block letters, or on a typewriter, so that each letter occupies the same space, thus making it easier to fit one letter beneath another when you use the slides.

Figure One

ABCDEFGHIJKLMNOPQRSTUVWXYZ ABCDEFGHIJKLMNOPQRSTUVWXYZ (Paste these two lines in continuous strip) The reason we suggest a double alphabet is that, in comparing alphabets, you will run over

that, in comparing alphabets, you will run over one end of the regular alphabet, and having two of them in line will save you getting mixed up.

After you have made the regular alphabet, make another one (this one may be just single, not double) with the alphabet in reverse.

Figure Two

ZYXWVUTSRQPON

MLKJIHGFEDCBA

(Paste these two lines in continuous strip)

Then make one with numbers signifying the alphabet, from 1 to 26; and another with the

numbers running in reverse. (Figure Three.)
If you wish, you may simply cut out the figures given you here and paste them on a stiff piece of cardboard. Then you have your equipment complete.

Now, with this equipment on hand, let us try our hand at the first step in solving a hidden message—which is the easiest way to learn how to write effective secret messages.

Our message:

GSRH XLWV RH EVID VZHB
The first thing we try to do is to recognize

Figure Three

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
2 6 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

some word, especially a word of a few letters. We have, in this case, the combination RH, and as a further help, we see that same combination finishing up the first word. Now, there are just a few ordinary two-letter words in our language: as, at in, or, by, of, is, it, and so on. We may have to try all of them, so let's start.

Take your alphabet slide showing the letters in their right order. Then lat's take the one with the reverse alphabet on it and try matching the letters of the regular alphabet word we select against the letters RH in the code.

Let us try AT. So we put the letter R, in our reversed alphabet, under the letter A of the regular alphabet and look for the letter that would denote H. This turns out to be K (Figure Four) which would give us AK for the coded word RH. That must be wrong.

hunt for combinations of letters. We know that TH is a frequent combination in our language; so is ON, IN, ER, and so on. (Figure Five gives you a list of the most common combinations.)

	gure Five	
th	at	st
er	en	io
on	es	le
an -	of	is
re	or	au
he	nt	ar
in	ea	as
ed	tř	de
nd	to	rt
ha	it	ve

If we see two letters, no matter what letters they are, repeated often, we try substituting one of these combinations for them,

Figure Four

I G	m F	n E	o D	p C	q B	r A	SZ	t Y	u X	v W	w V	v U	y T	z S	a R	b Q	c P	d O	e N	f M	g	h K	i J	j I	k H	
																									k P	

Try another—because that's what you must do; try and try again. This time let's try our second word, IN. Put the R of the reverse alphabet slide under the I of the regular alphabet and look to see if the H will give us N. It doesn't; it gives us S over H, so our coded RH gives us IS, which is a regular word.

Now let's fill in I and S for R and H wherever it appears in our coded message, and we get this:

Then we go on, with our reversed alphabet, and match up our code letters with the regular alphabet, and our answer:

Doing it this way sounds very easy, you say, because we picked the right way from the start. Of course, if you are lucky, that helps. But if that hadn't worked out, we would have tried some other way.

For example, if your hidden message has no short words (and short words are give-aways, so keep away from them in secret messages!) or any other such clues, your first step is to and most times that will give us a start toward breaking down the code.

If that doesn't work, we try the method of letter frequency. Some letters of our language appear oftener than others. E is the most frequent; then comes T, A, and so on. Here is the entire alphabet in its order of frequency:

ETAOINSRHLDCUMFWG YPBVKXJQZ

Whenever you see a great number of V's in a coded message, you might readily guess that the message is the same reverse-alphabet code we have just solved, and that every V is an E. Spotting a few such letters, plus a few combinations, will do half your job for you.

This substitution of letters for others can be worked a great many different ways. Instead of reversing the alphabet, just write your message by substituting the letter following the regular letter. Instead of THIS

you write

UIIT

which is one letter ahead; or make it two letters ahead, or three, or four. This will give you a good complicated code.

You can do the same thing backward: using the letter in front of your regular letter. Use A for B, B for C, and so on; or two letters in front, using Y for A, Z for B, and so on. Or

further, reverse the alphabet, as we have shown in our first message, and then use letters in front or in back of the regular letter. This is "double" encoding, and makes the code just twice as hard to break.

Once we know this principle of substitution, there is no limit to the number of codes we can devise on this basis. They may be variations of the substitution of the alphabet letters; they may be a reversal of their positions, such as simply writing the words backward: SIHT EDOC SI YREV YSAE or writing it by transposing every other letter: TIHS CDOE SI VREY ESAY or by putting one or two extra letters, picked at random, between each real letter of your word. Thus, using two extra letters, we get:

TLMHACIGBS CKIOYZDMQE IKKL VKSELDRATY EFTANBSTTY

and so on, limited only by our patience and ingenuity.

Then, too, we can use this same principle by simply substituting a sign or a figure for each letter of the alphabet, and then writing our message in that. Here, in Figure Six, for example, is one code which many of you might have, at some time or other, seen:

Figure Six

A	D	G	J .	M	P.
В	E	Н	к.	Ņ	· Q.
С	F	I	L.	ó	R
T	S U	/ v		X X	z

This is the tic-tac-toe code, and the message, "This code is very easy," would be:

>CLAUDLA COLVA

Now, you can make this code more complicated by using the reversed alphabet, or the letters one or two ahead or one or two behind. It will tend to make the code more confusing and baffle people who think they understand it. For example, if we reverse the alphabet, the same message, "This code is very easy," which is given in Figure Seven in its regular order, would now look like this:

LVFC>TV<FCO<FJ<<CJ

and the average person, remembering the tictac-toe code would get, as his first translation:

GSRH XLWV RH EVIB VZHB

and it wouldn't mean a thing to him. He'd have to start all over again, solving a brand-new code!

Here's still another effective little code, which you can alter to suit your convenience quite easily. First, arrange the alphabet in a square of five letters each way, dropping the letter Z in order to make the square an even 25 letters instead of the complete 26. Then, along each side and column, write the numbers from 1 to 0, like this:

	6	7	8	9	0
1	A	В	C	D	E
2	F	G	H	1	J
3	K	L	M	N	0
4	P	Q	R	S	Т
5	U	V	w	x	Y

Now, all you need to do to write your message is to put down the two numerals which meet at the letter you wish to write. For example, A is 16; B is 17; F is 26; K is 36; M is 38; S is 49; and so on. To write our message, "This code is very easy," you write:

40 28 29 49 18 30 19 10 29 49 57 10 48 50 10 16 49 50.

There is no limit to the changes you can make in this code. You can, for example, use the horizontal number first, thus A, instead of being 16, would be 61, and so on. Or you can have the vertical numbers (on the side) be single numbers, and the horizontal ones double numbers; thus, if instead of 6 you have 62, the letter A would be 162 (or, working the other way, 621). You may, instead of numbers, use letters for your side and horizontal markers, or use a combination of both.

This one will really leave you with plenty of possibilities to work on, and keep you busy until next month, when our second lesson will initiate you into better and more exciting codes and secret messages. Don't miss Lesson Two in the next issue of The Shadow Comics.