It was with great anticipation that I entered Dr. H. K. Wombat's study through the door held open for me by his attractive housekeeper. I found the learned marsupial seated behind his desk, a scarlet beret on his head and a recent newspaper in his hand. Glancing at me, he signaled me to sit in the com'ortable Louis Quinze fauteuil where he is accustomed to seat his guests. Finishing his reading, he tossed the open paper down, and as it fell open across his desk I could not help noting that the article he had been reading dealt with the status of women in Sweden. Somewhat unwisely, in view of the ease with which Dr. W. can be turned to discussion of the most far-ranging topics, I remarked upon the admirable state of social advancement which Karl XVI Gustav's kingdom had achieved. The doctor regarded me with a half-smile as he removed his headgear and retrieved a folded sheet of paper from the top of his head. While unfolding it he said, "You can see that I have had the subject of your visit on my mind. But let me comment on your observation. The reign of Karl XVI Gustav is proving as baneful to the Swedish monarchy as was that of Louis XVI to France's. The young man has been forced to pay income tax; he no longer can open parliament; his dynasty will become extinct, since his infant son has been set aside as heir apparent in favor of his sister; Ka' Gusta's sole distinctive function seems to be only to hand out Nobel Prizes that he cannot award; and his only remaining privilege is that of living in the various royal palaces, before which, I have just read, female soldiers now mount guard."

Smoothing out the paper that had lately reposed on his handsome brownish-grey pate, the scholar gazed contemplatively into the distance. "Why," mused he, "now that the King of the Swedes, Wends, and Goths is a complete cipher, is he being protected by crack troops? Is that social advancement? Let us turn from that depressing scene, however, and pass on to the question about which you wish to consult me."

"Yes, Dr. Wombat. Contrary to all that I have ever read or heard, you assert that crosswords employing Chinese ideographs can exist."

"Not only can they exist; they do exist; and I have one right here on this paper!"

I was astounded. In consultation with learned Sinologues, Japanolo-
gists, and experts on esoteric graphies I had been assured by all that it was impossible to use the massive, unitary, and complex characters in which the languages of China and Japan are written in any way resembling a crossword puzzle. I voiced my doubts to H. K. W.

"Let me elucidate a bit." He cleared his throat, settled himself back in his chair, and, steepling his little fingers, delivered the following discourse.

"First, we must realize that, among the Japanese, crosswords employing the native syllabary, the gojuuon or fifty sounds or syllables making up the kana, as it is called, are indeed known. In typically Japanese fashion, however, there are only some 47 distinct syllables in the fifty sounds, of which, again a la japonaise, there are 51 symbols. These fifty-one may in turn be combined or modified to produce some 150 other short and long-voweled and voiceless-dental-stop-ended syllables. And that's it -- about 200 distinct syllables in the whole language, far fewer than the 414 syllables provided for by the Chinese Pinyin transliteration. The vast monosyllabic riches of our own English tongue make these figures seem puny by comparison. Languages are not measured by the number of their syllables, however, and Chinese is immeasurably rich and Japanese is immeasurably complex.

"We will be dealing strictly with the characters, ideographs, or logograms -- whatever you want to call them -- with which these two languages are written. The Japanese call them kanji, literally 'Han characters,' and we will use this simple term. Less than 2000 kanji are now officially in use in Japan; about 5000 are used in China. The largest Japanese character dictionary (Ueda's Daijiten or Great Character Dictionary) contains upwards of 15,000 that have been used in Japanese writing in the past. About 40,000 is the character count in the largest Chinese character dictionary published in the early 18th century during the reign of the Chinese emperor K'ang Hsi (or Kang Xi) and referred to by his name. Most of the Kang Xi characters are alternate forms, abbreviations, hapax legomena, or even phantom characters -- much too complicated a subject to go into here; but nevertheless, all these characters represent a substantial body on which to draw for our crosswords. My kanji come from the Daijiten, although most of them are also found in A. N. Nelson's Modern Reader's Japanese-English Character Dictionary (2nd edition, Rutland, Vt., and Tokyo, 1966), which, despite some peculiarities, is highly praiseworthy.

"Let me say, too, that the study of Chinese characters is a very rewarding intellectual exercise in itself, even if one is not interested in the Chinese and Japanese languages in themselves, or per se, as hoi polloi are pleased to say at every turn these days. The best introduction to them that I know of is the little book in English by the Swedish sinologue B. Karlgren, Sound and Symbol in Chinese (Oxford, 1923).

"Over the centuries the kanji have been analyzed in a rather haphazard way by the Chinese as being combinations of 214 radicals or component parts (or at least as mainly composed of these parts). When writing
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the kanji the component radicals are written in a certain order within each character and the strokes composing these radicals are also written in a certain order -- both these orders are dictated by calligraphic principles. Despite this, the trend of Asiatic thought is such that each kanji is considered an integral unit; and I have heard learned Orientals go into raptures over the beauty, integrity, and even bodily weight of these characters lying on the paper or silk like lumps of gold. So we can see why for centuries, nay, millennia, until I addressed myself to the problem, these characters have been considered impossible to dissect so as to form up-and-down and across puzzles or crosswords. This is not to say that games have not been played with them, say, in poems where one component radical of a character has been replaced by another so as to make a sort of visual, as well as verbal, pun.

"But let us go to an example for some eyes-on experience which will give you a greater feeling for the whole matter. A little crossword that I have worked out follows shortly. Please do not labor under the burden that we are dealing with spoken sounds. We are not dealing with an image involving sound, but one involving writing -- or, as the Germans say with their usual admirable conciseness and immediacy, we are dealing with a Schriftbild, not a Lautbild. A kanji may have a score or more pronunciations. The reverse of the coin is that as many as several hundred kanji may have an identical pronunciation (e.g., KA and KEN in Japanese). Behind each kanji, however, there is a fundamental idea (hence ideograph) or a word which it originally represented (hence logogram). Take the symbol & as an approximate homologue: the pronunciation is and, und, y, e, a, o', or da, depending on whether you are American, German, Spanish, Portuguese, Welsh, Swedish, or Georgian (Tbilisi, not Plains variety). In the compound & on the other hand the original Latin pronunciation et is really obligatory for good form -- but we all know it means 'and.'"

"Below is a list of the nineteen constituent radicals which make up all the thirty-four kanji used in my interlacings. I give their primary meanings, their ordinal numbers on the 214-radical list, and the kanji which I use that are classified under them. The 214 radicals, incidentally, are written with from one to seventeen strokes of the brush or pen, and altogether occur in some 400 different forms in the kanji which they compose.
mouth 君 30
earth 土 32
mountain 山 46

61 heart 心
cavern 床, 床, 应 53

to spy 龙 212
to cover 覆, 覆, 覆 72

to design 龙 70

A Dragon!
B Woods,
C Covetin
to spy
D To cover
E To design
"Because of the novelty of the whole concept I will present a puzzle already solved and then go back and describe its operation."

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>青</td>
<td>森</td>
<td>觀</td>
<td>麻</td>
<td>瞼</td>
<td>林</td>
</tr>
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<td>休</td>
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<td>ad</td>
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<td>ce</td>
</tr>
</tbody>
</table>

Radical pattern of above:
- 212 75 46
- 212 75 151
- 212 75 147
- 53 9 75
- 212 75 95
- 212 75 46
- 72 75 75
- 212 75 75
- 212 75 151
- 112 112 112
- 212 75 112
- 112 112 147

"The kanji along the top and left side of this crossword or compound word square have been broken up into their component radicals, which have been written, in the order in which the calligrapher writes them, consecutively into the squares vertically below and horizontally to the right of the top and left hand kanji, respectively. The object is to get two radicals together that will make up a certain desired kanji. The generating kanji are indicated by the capital letters A, B, C, D, E, F, as shown. The generated kanji are indicated by the minuscule digraphs that designate their respective cells: ad, ae, af, bd, be, bf, cd, ce, cf. There are, of course, other ways of labeling the kanji."

"Here is a list of the meanings of the kanji:

- A Dragons moving
- B Woods, grove
- C Coveting high rank; to spy; to beg
- D To cover
- E To desire unconsciously
- ad High roof
- ae Haziness, dreaminess
- af To rub, whet
- bd (To take a) rest
- be Forest
- bf Mulberry tree

森, 椎
F Gathering of many stones
cd Timber
cce Small one-legged table for one person
ccf Inkstone

"As a puzzle the clues A - F and ad - cf may be presented in many enigmatic ways, as the reader's ingenuity may readily appreciate. This compound word square crossword puzzle incorporates four of the twenty-one kanji in Ueda's Daijiten that contain the dragon radical. Kanji A is distinguished by a very high number of strokes -- 48! Kanji cce is a character invented in Japan, a so-called kokuj (country or national character), which is not known or used in China, although it may per-chance be in the Kang Xi dictionary (to which I do not have access at the moment).

"Let me present still another and more complicated crossword -- a double compound word square. The generating kanji in this second-order square are simpler than the generated ones and are written into the square in the directions indicated by the arrows.

A B
C D
E F

Radical pattern of above
140 27
61 32

157 77
157 169 77 75
140 172 27 75
75 172

53 75
53 9 75 9
61 172 32 30
30 172

9 9
169 75
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Kanji A is

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crossword --

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written into

A Wick
B Pressure
C Footprint
D Floor; bed
E Group; set; fellows
F (To take a) rest
G Hammer; oak
H Only

aced To edge forward
adeh To answer
bcfg Passing (of time)
bdh Port

"Thus, my friend, you see that we can play with characters at will. I now have a patent pending to use this invention in games, so you see your query has proven fruitful. Much, much more could be explained about the whole concept; but this outline proves my assertion that ideograph or logogram crosswords exist. Unfortunately, I do not believe that ideographs will survive much more than a further generation or two; the tendency is constantly to restrict and simplify them. Mainland China, for example, now uses a five-stroke version of 'dragon', although Japan still uses a ten-stroke one. Korea and Viet Nam have already entirely given up the ideographs. The immense, fascinating and invaluable literature frozen in these characters will nevertheless always need its scholars and will undoubtedly become a special discipline in itself as general knowledge of the characters dies out."

The good doctor had indeed proven centuries of unitary-character thinkers wrong. My face must have borne an expression describable by 30 'mouth' on top of 75 'tree'.

Dr. Wombat observed me quizzically. "Now I have something else that we need no longer hold in abeyance -- it has nose, but small pretensions; nevertheless, you will find it surprisingly full-bodied" -- whereupon he opened a wine chest at his side and set before us two huge raspberry and whipped-cream tarts.