



## MINES AND MINING

BY JOHN A. THOMPSON

PERU, where the ancient Incas dined from golden plates, has been a rich source of gold since long before the white man first landed in the New World. Millions of dollars' worth of the precious yellow metal have been mined from its mountain streams high in the towering Andes.

Top Kick L. G., of Uncle Sam's fighting Marines, has seen a lot of places and done a lot of things in his many years of service with the Devil Dogs.

"That goes double," he writes, "since we took chips in the present war. But so far I've never gone gold prospecting, and I've never hit Peru. I'd like to satisfy both these ambitions when the war is over. Can you tip me off to the placer gold sections there? What about the country's mining laws?"

First let's get a few facts straight. Placer gold is still mined in Peru. Plenty of it. But it is not so easy to find the bonanza deposits that made the country gold-famous in the past. The old ones have been pretty well worked out, what with three or four hundred years of gold mining by prospectors and larger mining companies.

Lately a considerable part of Peru's annual gold output has come

as a byproduct of its extensive copper and silver mines. Originally, virtually all the gold came from placers (stream gravels) and hard-rock mining of gold-bearing quartz veins.

Even so, those adventurous enough to tackle the Peruvian Andes in quest of yellow metal ought to get themselves some colors in the pan.

Up in northwestern Peru there's a little city called Tumbes. Try the river of the same name near the town. Placer gold's been mined there fairly recently. In the same general region over on the east side of the Central Cordillera range, hunt up the Marañon River close to the border of Ecuador. Prospecting along some of the south-flowing tributaries of the upper Marañon has turned up placer gold in the past.

Way further south below Trujillo on the Pacific coast some of the mountain streams around Caraz have given up colors of yellow metal. There are gold-silver lode mines in the area.

To get over where the Incas are supposed to have mined a large part of their early golden wealth, strike out for Cuzco, then make your way north and east to the headwaters of the Madre de Dios River. Quite a few placer deposits are still regularly

mined in that sector, many of them fairly extensive. The Inambari River, a tributary of the Madre de Dios, might likewise be worth a try.

Those are perhaps the most likely known gold-placer sections in Peru. But the prospector should remember that placer gold, particularly in the present day, represents only a part of the country's enormous mineral wealth, both proved and potential. The gold lodes found in Peru have produced tremendously rich mines.

Silver, copper, vanadium and other metals are found and mined in this rich, South American country. The Cerro de Pasco mining district, a little over a hundred miles north-east of the capital at Lima, was one of the world's most famous silver-mining areas for almost three hundred years—from the early 1600's until the turn of the present century. Since then and up to the present it has been an important producer of copper, one of the most essential of all our modern industrial metals.

Gold lode mines are also situated near Paucarbamba, and at Julcani, southeast of Hauncavelica, and to the south at Posco, fifteen miles west of Andaray. The list could be extended. The point, however, is not to rattle off a string of Peruvian place names where gold mining is, or has been, carried on, so much as it is to put over the important fact that Peru is a highly mineralized country. Gold has been found there

in a lot of scattered places. Future prospecting may add to the already intensive catalogue.

A few years ago there was a flurry of intensive prospecting for further gold in the general southern half of the country. This may be taken up again after the war. South America is one of the world's greatest remaining storehouses of potential, unmined mineral treasure.

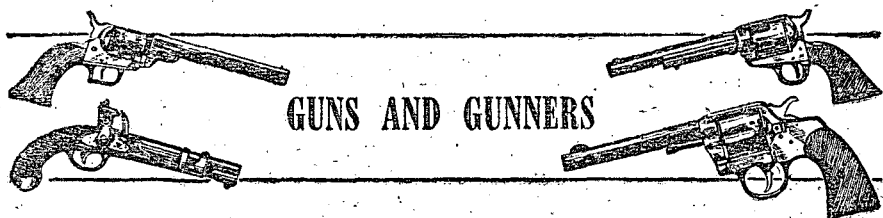
Prospecting is freely permitted in Peru. The unit for placer claims is a square measuring two hundred meters on all sides. This works out to about eight and a half acres. Lode units are smaller—two hundred by fifty meters. In either case the unit is known as a *pertenencia*.

A claim, or more correctly a denouncement, refers to the total amount of ground the prospector wishes to locate. This may, and generally does, consist of more than one *pertenencia*. Seventy units is the top allowance.

An annual tax is imposed on the amount of land denounced. If it is more than a year in default, the land automatically becomes "open" again.

Other required regulations are advertising of the land, surveys and registration. Fees for these things are nominal. At any rate the first step is to set up posts marking the corner boundaries of the land denounced. Following this, application for the land must be made to local government authorities on special forms.

If there is anything you want to know about mining or prospecting, a letter inclosing a stamped and self-addressed envelope sent to J. A. Thompson, care of Street & Smith's Western Story, 122 East 42nd Street, New York 17, N. Y., will bring a prompt, authoritative, personal reply. Letters unaccompanied by a return envelope will be published in the order in which they are received; please keep them as brief as possible.



BY CAPTAIN PHILIP B. SHARPE

FROM the weapons of today's war we turn to those of yesteryear. The days of the muzzle-loader were long ago "numbered," but someone, a short two decades back, began a new series of numbers.

The boys like to shoot these old black-powder muzzle-loaders. The sport started when a single group of collectors in Ohio took an interest in their collection pieces and began to experiment with them. In a short time the practice spread from coast to coast and from border to border.

Favorite of most of the muzzle-loading fans is the American-built-and-designed "Kentucky" rifle. Strange as it may seem, this rifle was born in Pennsylvania, and is believed to have been the product of the famous German gunsmiths, today known as the "Pennsylvania Dutch."

In the early 1700's, many of these gunsmiths came to Pennsylvania from Germany and Switzerland. They brought with them skill and ideas from the old country—ideas which they later developed into the rifle which made them famous.

With these early gunsmiths came the ideas of the so-called Schuetzen rifles—heavy, large-caliber precision weapons designed for target shooting. Because of their size, their bulk,

and their weight, they were unsuited for use as hunting weapons. Furthermore they were extravagant in the consumption of powder and lead—most of them were about .75 caliber or as big as a 12-gauge shotgun. Some were rifled; some were smooth-bore. The original models were listed as to gauge rather than caliber. The American system of caliber, meaning hundredths of an inch, was later applied to rifled barrels—smoothbored were designated by gauge. This same system of gauge designation still applies today.

A study of the design of the Kentucky shows features of both the German and Swiss rifles. The German Schuetzen rifle was a large-bore (about .75 caliber), heavy and beautifully ornamented weapon. The barrel was large, thick and short as the rifle was used not only for target shooting, but also for hunting the wild boar and antlered stag in dense forests. The Swiss rifle was used at long range for hunting the wary mountain sheep and goats. Thus it had better sights, longer barrels, and slightly smaller bores.

The Kentucky rifle was designed to meet American hunting conditions. There was an abundance of small game, but hunting required much