

# *The* NATIONAL GEOGRAPHIC MAGAZINE

Vol. XIX

NOVEMBER, 1908

No. 11

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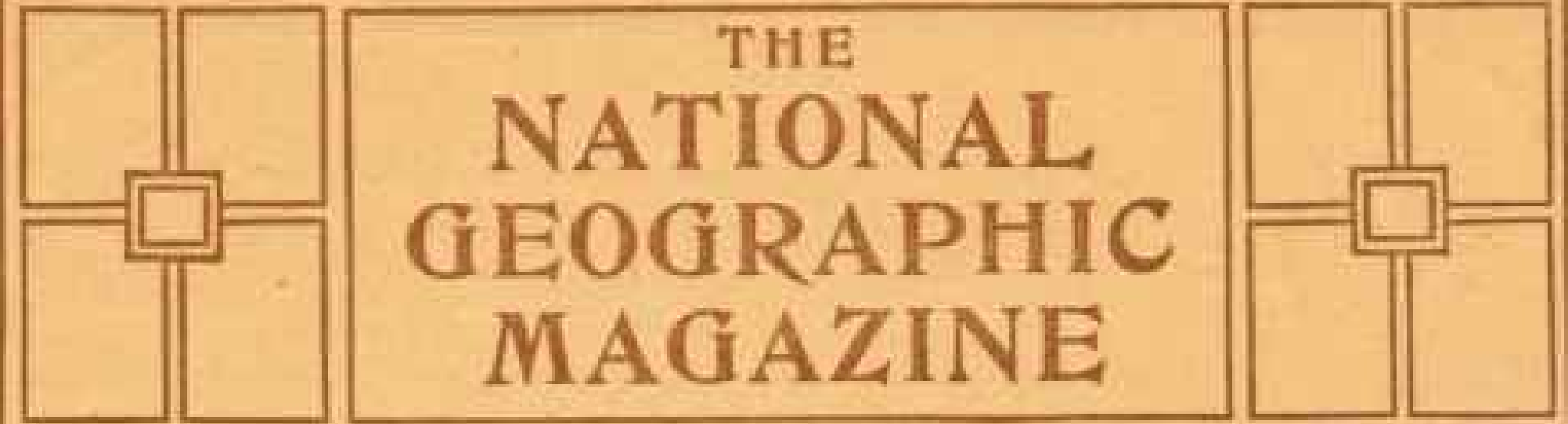
**National Geographic Society Notes.**

PUBLISHED BY THE NATIONAL GEOGRAPHIC SOCIETY  
HUBBARD MEMORIAL HALL  
WASHINGTON, D. C.

SUBSCRIPTION, \$2.50 A YEAR

SINGLE NUMBER, 25 CENTS

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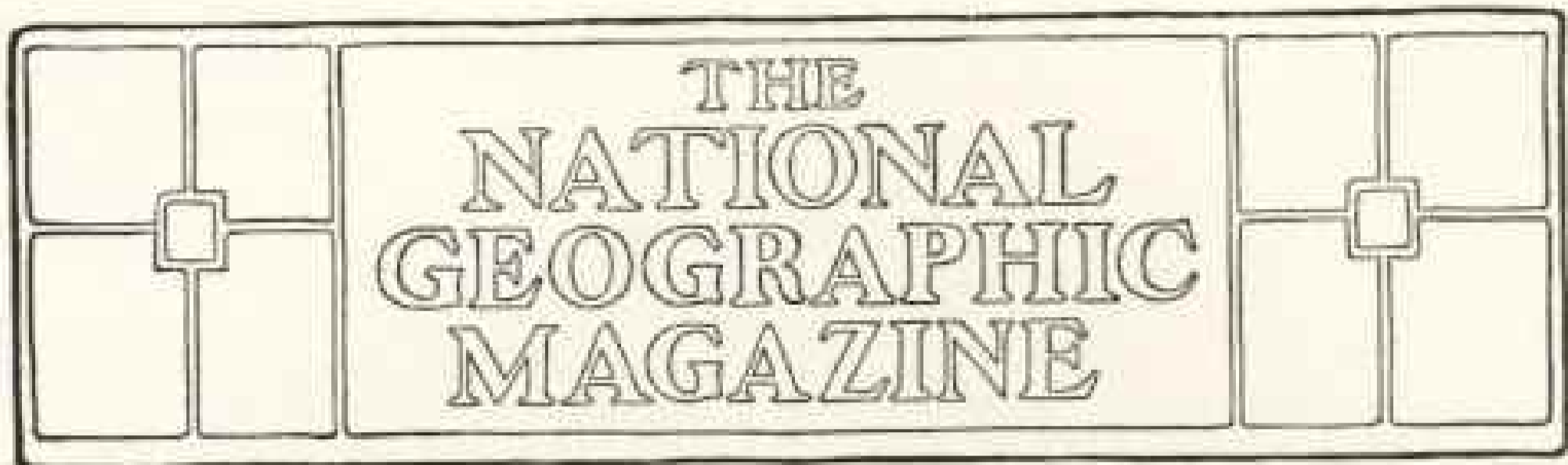
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## THE RUINED CITIES OF ASIA MINOR

BY ERNEST L. HARRIS

AMERICAN CONSUL GENERAL TO SMYRNA

**A**SIA MINOR is the stage upon which have been enacted some of the most stupendous events in the history of mankind. Here the civilizations of the Orient and the Occident have ever met and struggled for supremacy. The Persian and Greek, Roman and Pontian, Byzantine and Moslem, Crusader and Saracen, Turk and Mogul, each in their turn came upon the scene, and were alternately overwhelmed by the vicissitudes of human life. Fragments of columns, arches, and temples now stand as silent sentinels over the tombs of their empires and cities.

Today these mangled ruins present a melancholy picture, yet they cannot be viewed without pleasure and regret. The pleasure consists chiefly in recalling the historical associations connected with each, while the regret is caused by the fact that nothing is done to prevent their further decay and demolition, and that in all probability future generations will lay considerable blame upon the present age for not having done more toward preserving these interesting and instructive ruins from an earlier destruction, at least, than would presumably be their destiny if left alone to the silent lapse of time.

The object of these papers is to deal with some buried cities of Asia Minor as they now are. A description of their present state of preservation cannot fail in interesting every student of history.

Asia Minor presents practically a boundless field for research and exploration. There are remnants of Hittite monuments still extant which date from the earliest dawn of history. Among the ruined Greek cities rise many a stately structure of Roman origin, now slowly sinking into decay. From distant hill-tops medieval castles, some in a fair state of preservation, still look down upon the valleys below. The few travelers who visit the interior of Asia Minor today are greeted by these grim heritages of a great past. There they stand, as it were, the silent custodians of treasures and secrets which lie buried deep beneath, mutely appealing to the present age to bestir itself and rescue, before it is too late, these sinking tumuli, the receptacles of knowledge, which may enlighten and instruct present generations of mankind.

During the past year I have visited the sites of many ancient cities in Asia Minor. Many places described are rarely sought out by the tourist, and seldom

even by the archæologist. I may state that I have visited and inspected all the places herein described, and personally photographed the views here shown. I wish also to state in the beginning that I am not an archæologist, and have had no training on the subject. This must account for any inadvertencies which may crop up in the course of this narrative.

Much is being done at present in the way of excavating the ancient cities of Ephesus, Pergamus, Priene, and Miletus. For a number of years the Austrian government has been busy at Ephesus, and the German government is at present carrying on excavations at Pergamus and Miletus. On the whole, however, little has thus far been done to unearth the buried cities of Asia Minor. Superficial excavations have been made at many points. Thorough excavations, however, such as have characterized the work of the Germans at Priene, where a whole city has been brought to light, are an exception.

#### A CITY BURIED UNDER OLIVE ORCHARDS

The ruins of ancient Tralles are situated upon a high plateau which overlooks the fertile plain of the Mæander River. At the foot of the hills stands the modern town of Aidin, the second place of importance in the vilayet of Smyrna. Today this neighborhood is considered the garden spot of Asia Minor. It is the center of the fig district, and the olives and wine produced are much prized on account of their quality. This is also the region in which the best cotton in Asia Minor is grown.

It is probable that this valley was kept in a much higher state of cultivation in ancient times. When the city surrendered to Alexander the Great the figs of Tralles were celebrated throughout the ancient world, and it is a well-known fact that at that time the hills along the whole extent of the Mæander were covered with forests which prevented, in a measure, the destructive inundations which characterize this river today.

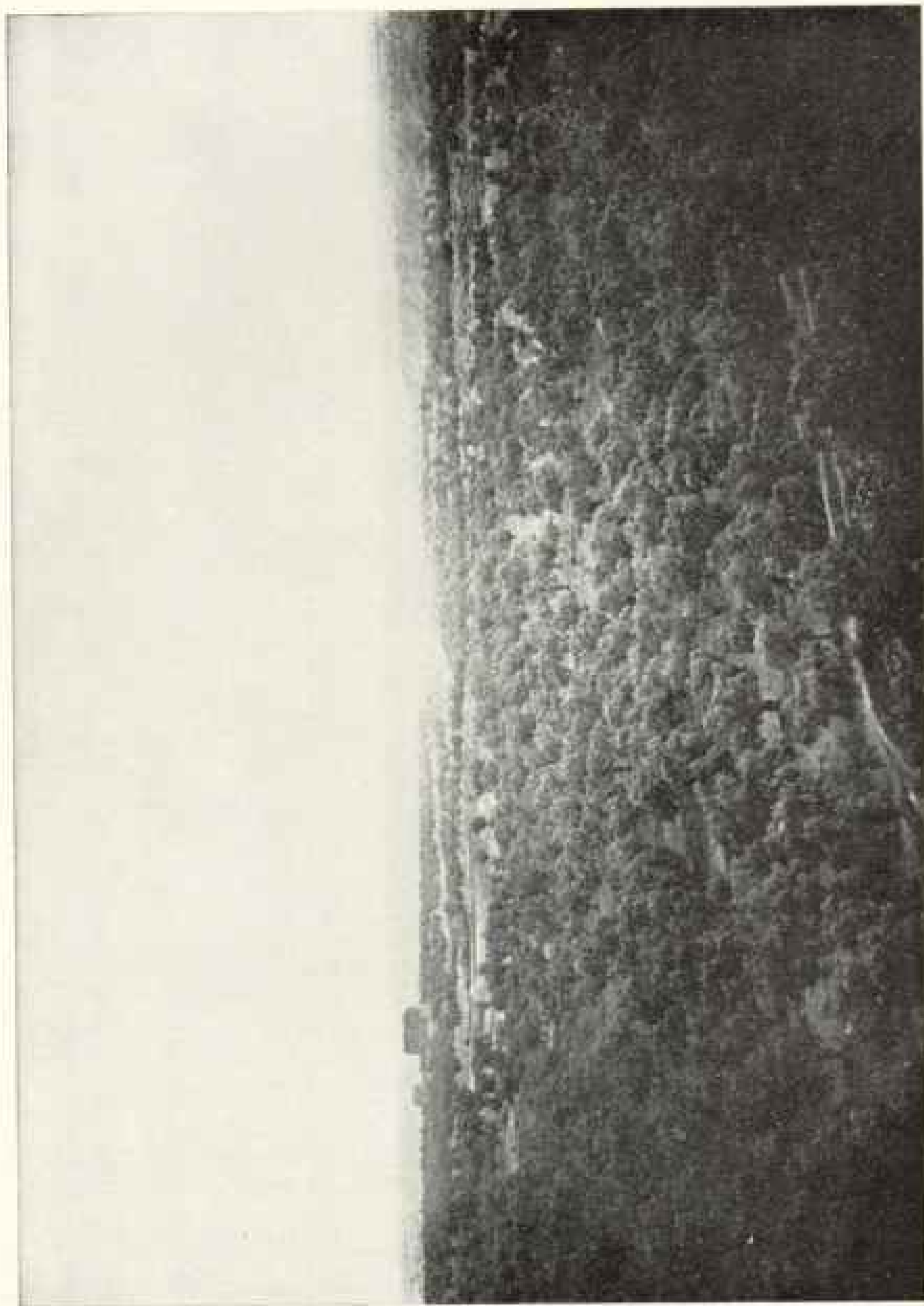
Ancient Tralles now lies imbedded

under a vast orchard of olive trees. Most of these trees are more than two hundred years old. The ruins extant above the surface of the earth, some standing erect in the shape of pillars and arches, some thickly strewn among the trees, present a picturesque and unique scene. In 1888 some excavations were made, with good results. The ruins, however, have suffered much at different times from earthquakes, and especially on account of being used as building material for the houses of Aidin, and some of the finest columns have been removed and set in the public buildings of that town. Remains of the acropolis, stadium, and theater may still be seen. It was from the latter that Strabo claimed that he could look across the plain of the Mæander and see the people sitting in the theater of Magnesia. On the edge of the plateau still stand three enormous archways which are either a part of a Greek gymnasium or Roman bath. The slabs of marble which ornamented these arches have long since been removed.

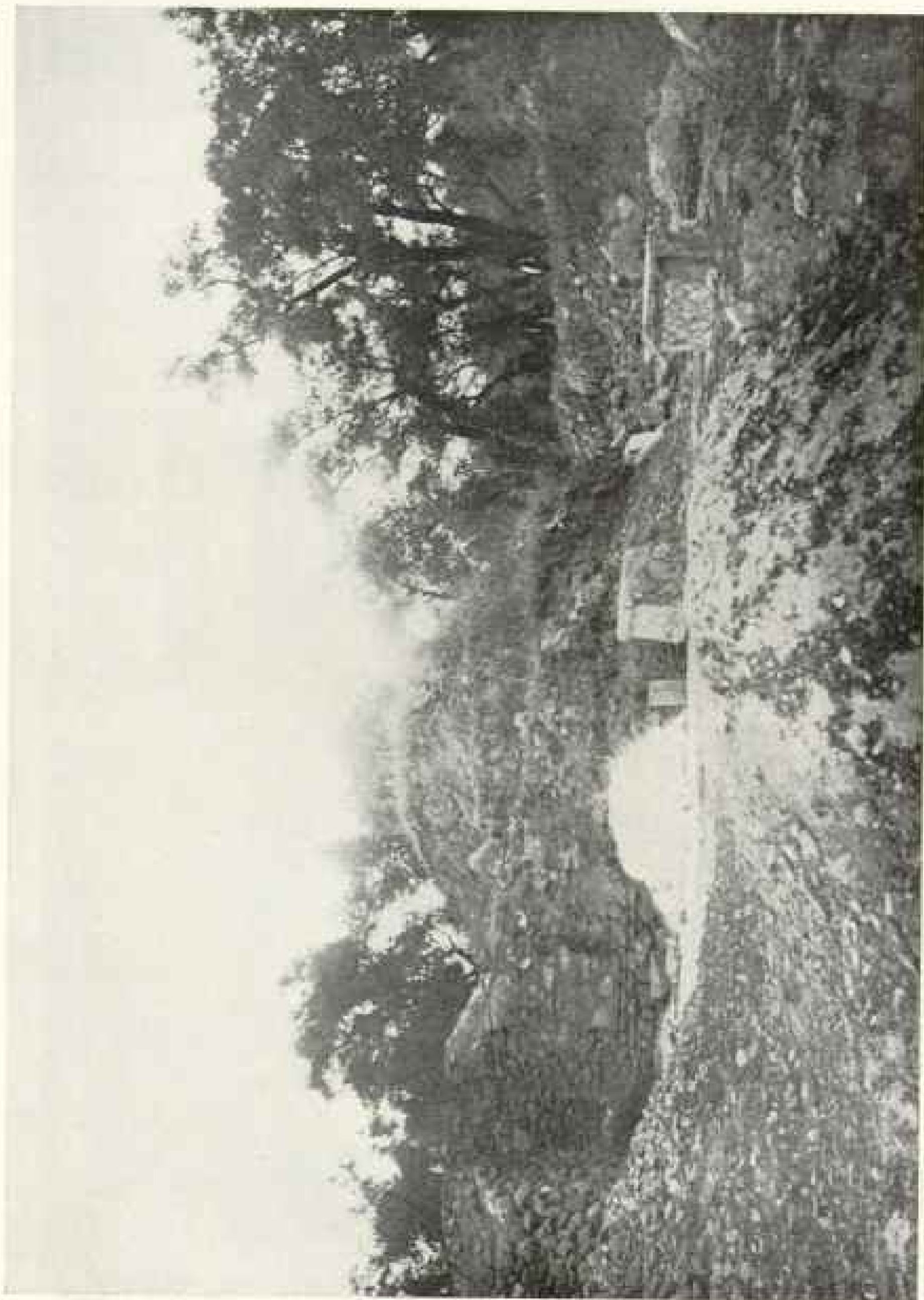
Generally speaking, Tralles would be an easy city to excavate. There is no rock formation of a serious character. The earth covers the ruins loosely, and could easily be removed. The olive orchard, with the roots of the trees extending in every direction deep into the ground, would form the greatest obstacle, not only from the point of digging, but as an item of expense, for the reason that these fruit trees would have to be purchased outright from their owners before being destroyed.

Tralles was one of the most important cities in Asia Minor. Its position, half way between the ports of Ephesus and Miletus, on the coast, and the interior cities of the country, must have been favorable always to transient commerce. It was renowned for the wealth of its inhabitants. It was repeatedly destroyed by earthquakes and fires, and as often rebuilt, until about the thirteenth century, when the last catastrophe left the city a mass of ruins.

Since then the remnants have been used in constructing mosques and in



THE OLIVE ORCHARD BENEATH WHICH THE CITY OF TRALLES LIES BURIED



A LIMELIN AMONG THE RUINS OF TRALLIS, SHOWING HOW SOME OF THE MOST BEAUTIFUL MARBLES ARE BEING REDUCED TO LIMB

shaping headstones for graves in Turkish cemeteries. For many years past the ruined site has been superficially dug and culled for sculptures and other antiquities, and the fragments found show that they belong to the best period of art. On the roads approaching Aidin there are many fountains, the troughs of which have been hollowed out of the base of columns from the temple of Aesculapius.

At present there is a limekiln in operation among the ruins, and many men are employed in digging up columns of porphyry and slabs of marble with Greek inscriptions, which are all being ground into lime for building purposes. The Turkish governor of Aidin informed me that he had made a futile attempt to stop this work, but that it was being conducted by the military authorities, over which he had no jurisdiction.

In plowing among the olive trees the peasants still turn up innumerable coins, which they sell at trifling prices. Many valuable pieces of statuary taken from Tralles may also be seen in the houses of the better class of people in Aidin, but these are as nothing compared to the number sent to various museums in Europe. And what Tralles has yet given to the world in the way of art treasures is as nothing compared with what still remains entombed, for the city itself lies beneath the earth.

#### THE RUINS OF WEALTHY LAODICEA

The now deserted city of Laodicea was situated in ancient times upon the great Græco-Roman highway which led from Sardis, in Lydia, through the heart of Asia Minor to the confines of Syria. This roadway, supposed to be of Persian origin, was once the chief means of communication for commercial and military enterprises, being used in turn by the armies of Xerxes, Alexander the Great, Frederick Barbarossa, and many others. The ruins of Laodicea lie upon a commanding elevation, which gives a fine view of the surrounding country. About 8 miles distant stands Mount Cadmus, white with snow, while all that is left of Colossæ rests at its base.

On the other hand, beyond the fertile valley of the Lycus may be seen, glimmering in the sunlight, the huge cascades which plunge over the plateau where the city of Hierapolis is situated. Nestling at the foot of the hill, upon which the acropolis once stood, is the little village of Gonjeli, while away to the south, with the mountain range of Baba Dagh in the background, is the larger Turkish town of Denizli. Both of these places have been practically built from the ruins of Laodicea.

In the spring of the year the valleys and slopes about Laodicea are green with verdure, and the surrounding country, as viewed from the ruins, presents a picture not unfriendly to the eye. In fact, the fields are cultivated up to the walls of the city. But within the city limits, which probably cover an area two miles square, there is not enough vegetation to feed a hungry goat. It is a scene of desolation, where only snakes, lizards, turtles, and prowling jackals now seek refuge in subterranean caverns. The tombstone cutter from Denizli is a regular visitor. Occasionally a camel caravan may be seen wending its way slowly through the ruined streets. But otherwise it is a place long since rejected and shorn of every symbol of former greatness.

Yet Laodicea was once the chief emporium of central Asia Minor. It was the seat of one of the Seven Churches. For something like 1,400 years this city was deemed one of the most important to possess, not only from a military point of view, but also from the standpoint of the sinews wherewith to conduct war. The opulent citizens of Laodicea often fell a prey to the greed of Roman, Tartar, and Turkish conquerors. In times of peace the hardships caused by earthquakes were felt as severely as was the pestilence of war. Yet the people were so attached to their city that they rebuilt it repeatedly out of their own means, and each time in greater splendor than before. It was only when Tamerlane scarcely left one stone upon the other, and when the Turks, about 1230 A. D., slaughtered or sold the inhabitants into

slavery, that the city became what it is today—one vast field studded with heaps of ruins.

Considering the ravages caused by earthquakes, time, and war, Laodicea, however, even at present, is still in a remarkable state of preservation. The stadium is almost intact. The steps repose in the sides of a hill, which forms a natural base for this monument. The plan of the gymnasium is so well preserved that almost the entire building can be seen. Two theaters, one of which was devoted to music, are practically complete. Scattered over the field, in one mass of entangled ruins, are no end of temples with the base of columns still in place. The ancient aqueduct is partially preserved, and shows clearly how the water was conducted from a long distance upon the hydrostatic principle of its seeking its own level. The aqueduct is not a lofty archway, such as characterize those of Roman origin throughout Asia Minor and Italy, but is built close to the ground, and the water was conducted to the city in massive stone pipes up hill and down from a distant mountain range. In the bed of the little river of Asopos stand the broken piers of a bridge which once led to a Christian cemetery on a neighboring hill opposite the city. The ancient pagan necropolis was situated just outside the city limits, near where the village of Gönjeli now stands. Many interesting sarcophagi have been found and removed to various museums. Laodicea once had three gateways which pierced the solid walls which extended around the circumference of the plateau. The archways of one are still well preserved, but the base lies deeply buried in the earth. Of the great double gateway which opened upon the road leading to Hierapolis, nothing but the buttresses which supported it on either side of the deep ravine which formed the approach to the city may still indistinctly be traced. Over this gateway there was a viaduct which connected the acropolis with the small theater.

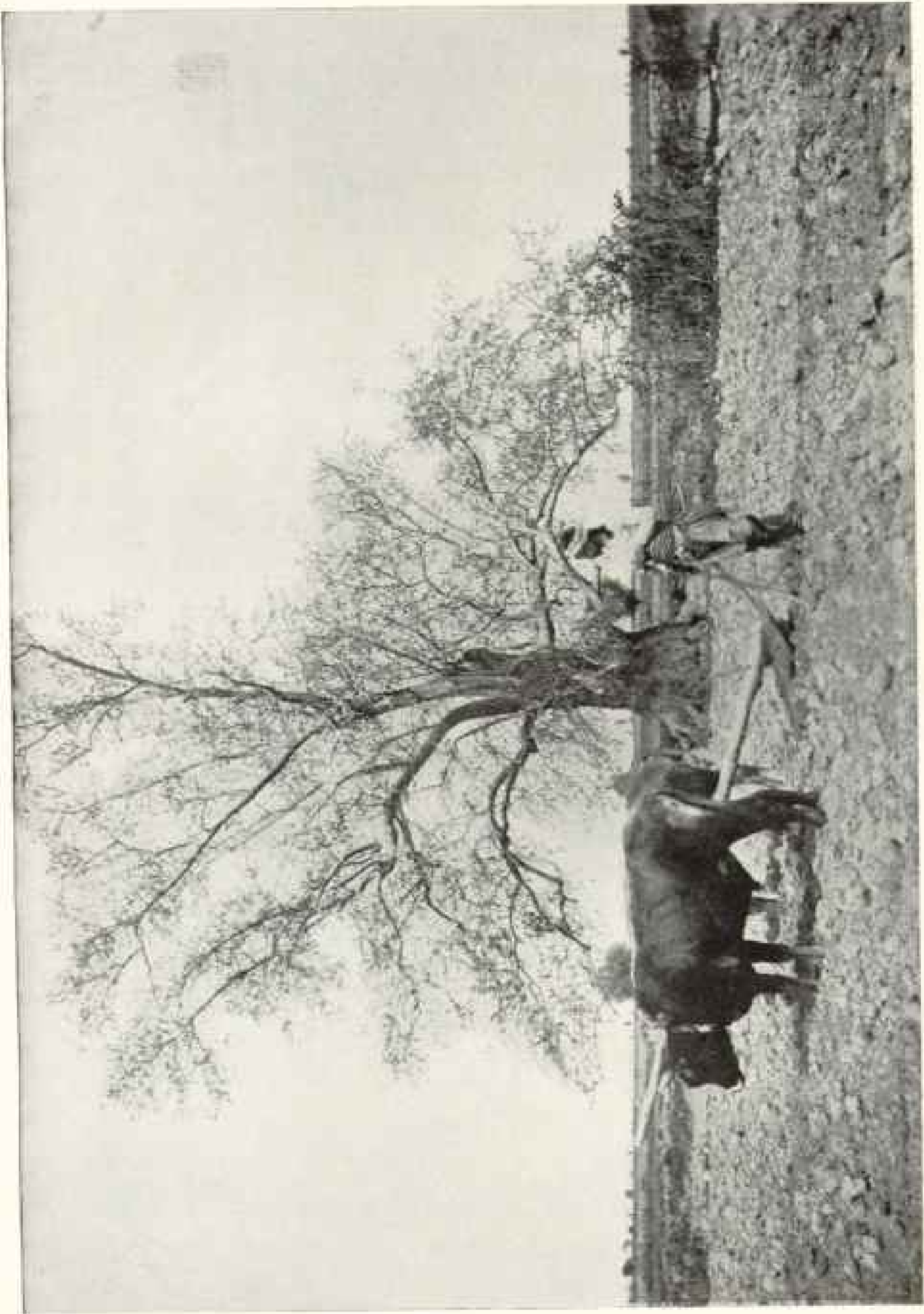
As yet nothing has been done by the

archæologist in the way of excavating Laodicea. This is surprising when we take into consideration that of all the old cities in Asia Minor none has been or could be excavated with greater ease. The debris and earth which cover the city could be easily carted away and dumped at the foot of the hills. Probably no ancient city would repay the effort more than this one. As at Ephesus, an excavation would probably reveal various periods of architecture, each built upon the other. Certain it is that the buildings which now stand above the earth's surface are more or less of late Greek or Roman origin. Certain it is also that the Laodicea which was founded by Antiochus II some 250 years B. C. was erected upon the site of a much older city.

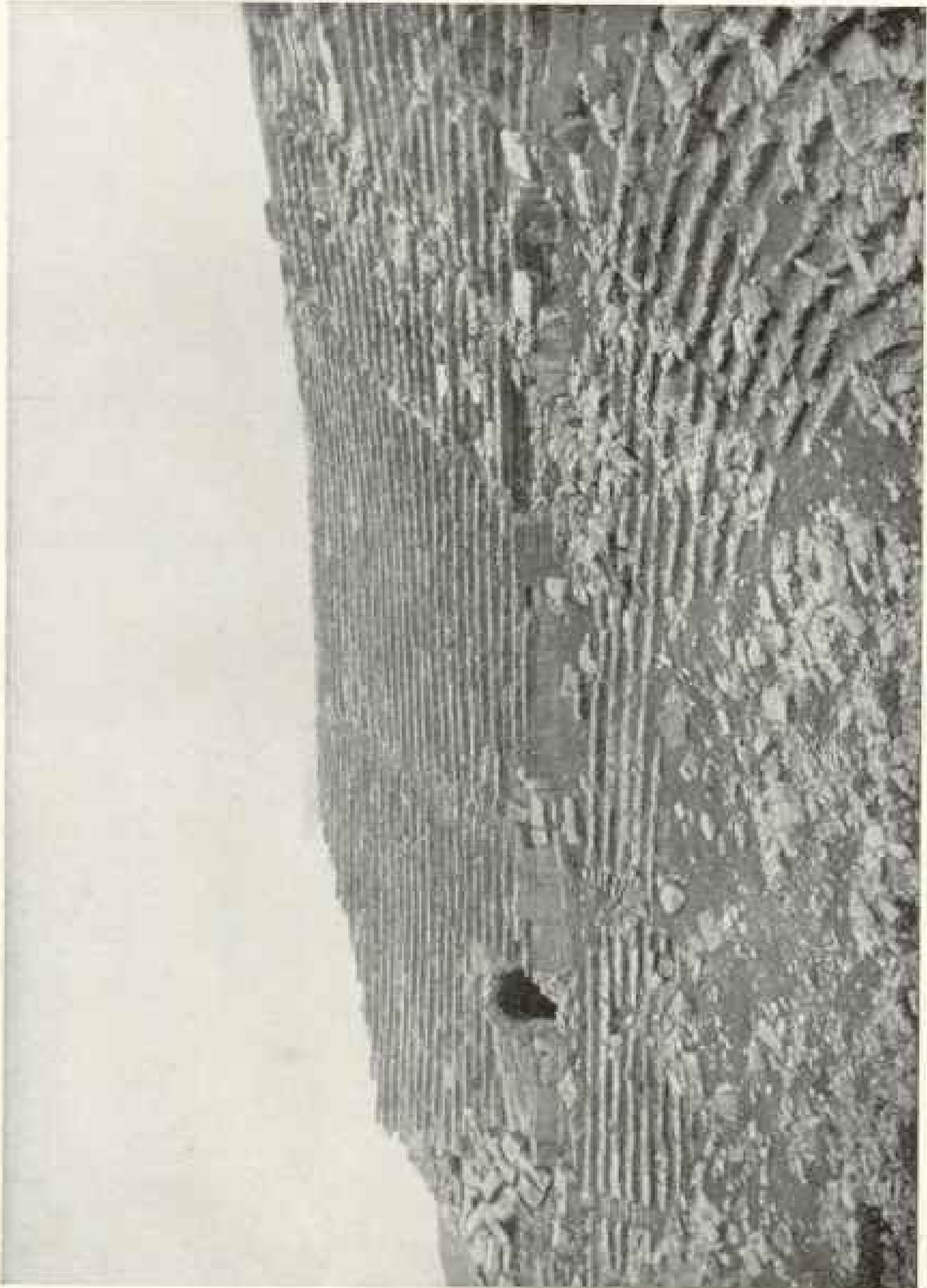
#### HIERAPOLIS, THE HOLY CITY

Hierapolis is probably the most interesting spot in Asia Minor. It has always been one of the most fascinating places in the Orient. As the ancients were attracted toward it on account of the matchless mineral springs and awe-inspiring Plutonium, so today the stray traveler seeks it out in order to feast his eyes upon the most perfect ruined city in the world. It is indeed a marvelous city. To the student of history it is an object-lesson unparalleled elsewhere; to the philosopher it is an inexhaustible mine of contemplation; to the ignorant nomad who wanders in these parts it is an actual example of the power of magic; to the archæologist it means nothing, at least that which is visible to the eye, for the reason that what he seeks lies beneath a calcareous incrustation which paves the whole plateau, and belongs to a far anterior period than the present ruins.

Hierapolis is a veritable city of the dead. Outside the walls, there are no less than four immense necropolises in a splendid state of preservation. Naturally every mausoleum and sarcophagus has been opened and plundered centuries ago, but it was done in such a manner that the tombs were not destroyed, and they may be inspected today in exactly



A TYPICAL PLOWMAN OF ASIA MINOR



A VIEW INSIDE THE THEATER: HIERAPOLIS



the same condition and place of repose as they occupied nearly 2,000 years ago. There were two main entrances to the city, and the chief street extended through the center from gate to gate. This street was once embellished with some of the finest public buildings, and after the introduction of Christianity it was graced by two large churches. The early Christians were not, however, permitted to erect their first church within the city limits, but were compelled to build it outside the walls. This church was built upon the spot where the Apostle Philip was martyred, and the ruins today are in a very good state of preservation.

The ruined city of Hierapolis may be reached from Laodicea after about five hours' horseback ride. In ancient times a splendid roadway connected the two cities, the only traces, however, now extant being the buttresses of a bridge which once spanned the Lycus. During the rainy season, which lasts from November 15 to March 1 in that part of the country, it is practically impossible to cross the valley, for the reason that it is rendered impassable by the overflow waters of the Lycus.

#### THE CASCADES OF HIERAPOLIS

The cascades of the city are visible from a long distance, and as one approaches them the more impressive they become. At a distance of two miles they have the appearance of some huge cataract, not unlike that of Niagara, and if seen in April, when the grass is green upon the slopes beyond, the whole presents a wonderful picture. The cascades are white as snow.

Some idea may be had of this phenomenon when I state that the falls are  $1\frac{1}{2}$  miles in length and 525 feet high; in other words, a stupendous cataract turned to stone. It must have taken many cycles of time in the course of nature for the deposits contained in those mineral springs to slowly transform the whole precipice into a state of petrification. And it was upon this broad terrace that a very ancient race of people must

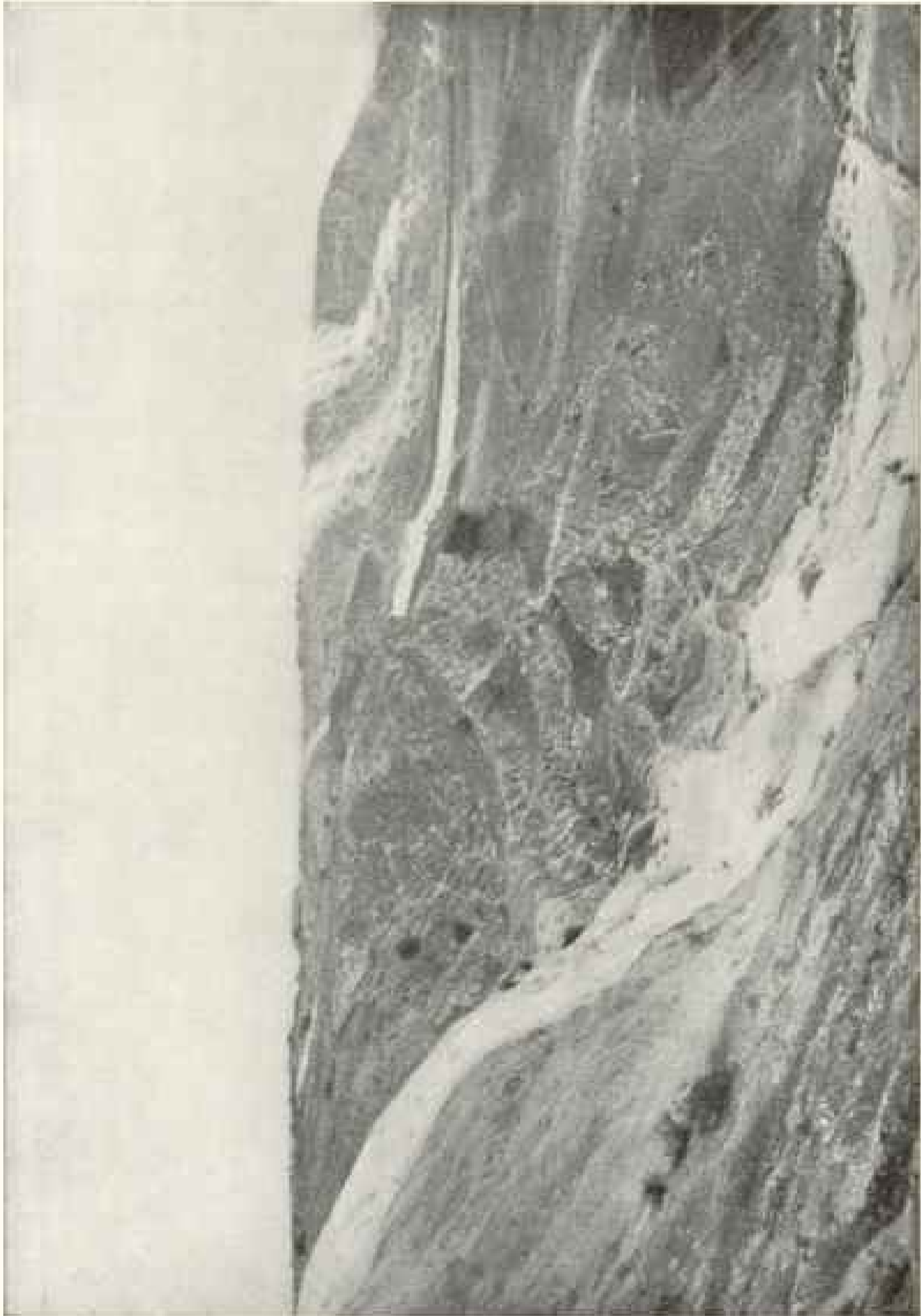
have built a city, of which there appears no chronological record. Hierapolis is first heard of in history about 200 years B. C., and at that time it rivalled the splendor of Laodicea. It is supposed that the primitive city is entombed beneath the thick calcareous layer of stone.

I have read several descriptions of Hierapolis which have been written at different times during the past 80 years, but none of them seem to apply, in many respects, to the present state of things. For example, one explorer says that he ascended to the ruins by a precipitous path, and that the terrace upon which the city stood was prettily wooded with olive trees. If such was the case at that time, it certainly is not true today; and as the deposits from the mineral springs have blasted the entire plateau with sterility, it does not seem probable that such was ever the case. Certainly not since the city ceased to be inhabited, and the waters, being no longer kept in well-defined channels, were permitted to run riot among the abandoned buildings and to plunge over the cliff at will. As olive trees grow to be two or three hundred years old, it seems that traces of the same might easily be seen. This description probably applies to the little Turkish village of Edscheli, which lies at the foot of Hierapolis, in the midst of an olive grove, well protected from the warm water of the springs which flows near by toward the Lycus.

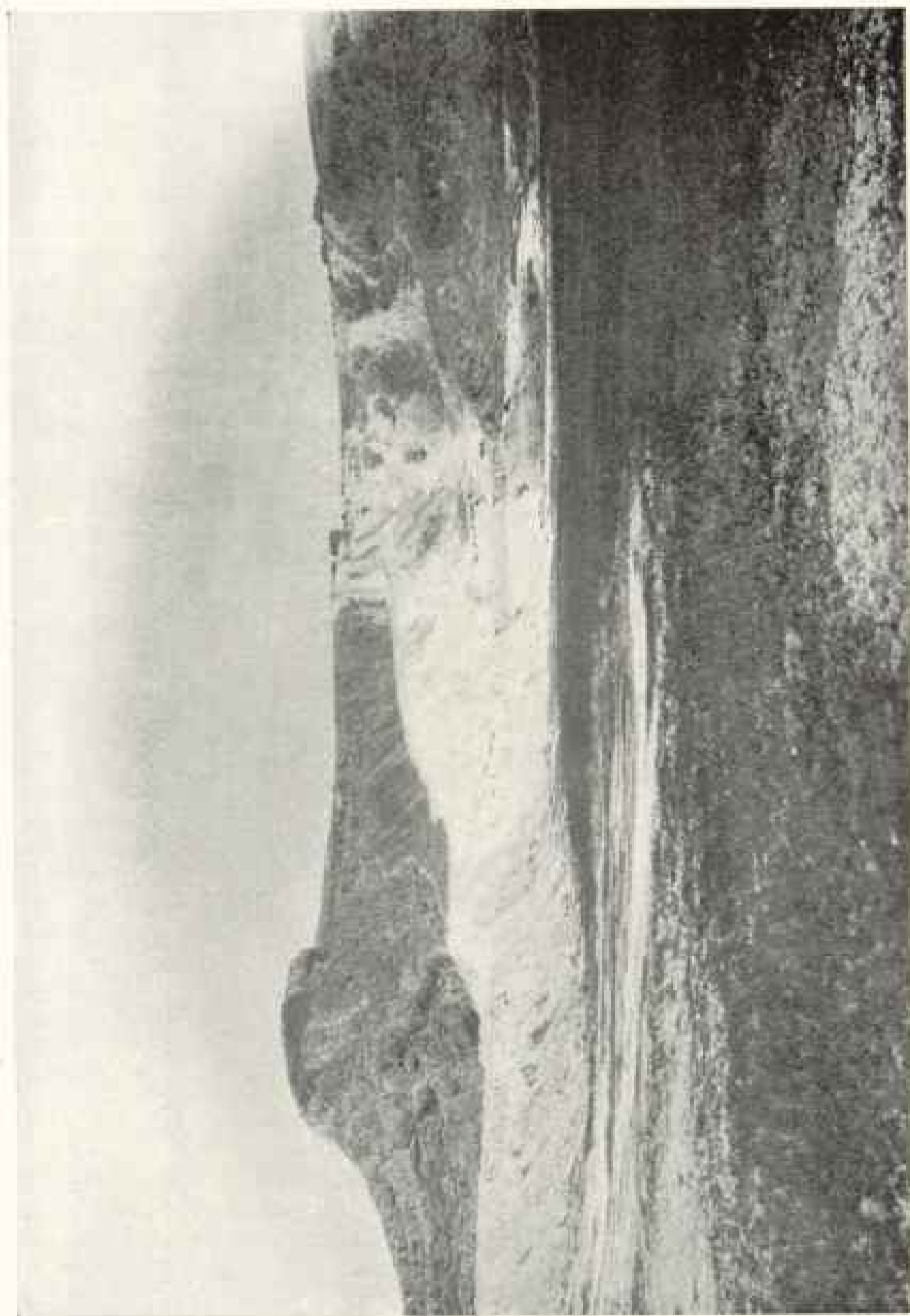
#### THE WONDER OF THE ANCIENTS

Of the Plutonium, which was the wonder of the ancients, there is now no trace whatsoever. Strabo tells us that in his day the inhabitants of Hierapolis regarded the warm waters and the Plutonium as two phenomena which bordered on the miraculous. The waters were so ready, he says, to petrify everything, that by running them through artificial ditches around the fields channels of solid stone were soon formed.

The Plutonium, he continues, was situated in the low crest of a neighboring hill, and consisted in a small orifice, yet sufficiently large to admit the body of a



THE WONDERFUL CASCADES AT HIERAPOLIS, ONE MILE AND A HALF IN LENGTH, 525 FEET HIGH  
(SEE PAGE 749)



ANOTHER VIEW OF THE STUPENDOUS STONE CASCADES AT HIERAPOLIS: THE EASTERN DIVISION

full-grown man. Around this opening in the earth there was a balustrade about 50 feet in circumference. From the earth there issued a species of smoke which was so thick that one could scarcely distinguish the earth which was enclosed within the balustrade. The vapor did not molest those who approached when the weather was sufficiently calm to enable it to rise in a column in the air. If an animal, such as a bull, were put in, it died immediately.

Strabo further says that he often tested the powers of the Plutonium by causing sparrows to fly into it. They invariably died the moment they came in contact with the smoke.

It is probable that the Plutonium in ancient times was situated at some place between the theater and where the springs rise up today, although, as has been said, there is now no trace of it to be found. Another version is that it was destroyed by the Christians in the early part of the fourth century. Again, it is claimed that in Roman times, or about 250 A. D., when the city was at the height of its splendor, the Plutonium and the warm springs were one and the same thing; that is, in other words, the warm water flowed out of the mouth of the Plutonium itself. Be that as it may, the whole question seems now, more or less, to be one of mere speculation.

#### THE WARM SPRINGS

The warm springs of Hierapolis are still noted for their healing qualities, especially for rheumatism. Even today the nomads of Asia Minor come and pitch their tents within the ruins, and remain for months at a time in order to enjoy the waters.

A bath in these springs is a never-to-be-forgotten luxury, something no traveler denies himself when visiting the place, a thing in itself which well repays the hardships of a journey thither.

Among the peasants who live in the village of Edscheli, at the foot of the falls, there exists the belief that in a certain part of the pool there is no bottom. This belief has been handed down from

generation to generation. It is easy to account for this conviction among the peasants, because there are spots in the basin which are certainly very deep. Apart, however, from this, the edges and bottom of the basin have another peculiar interest.

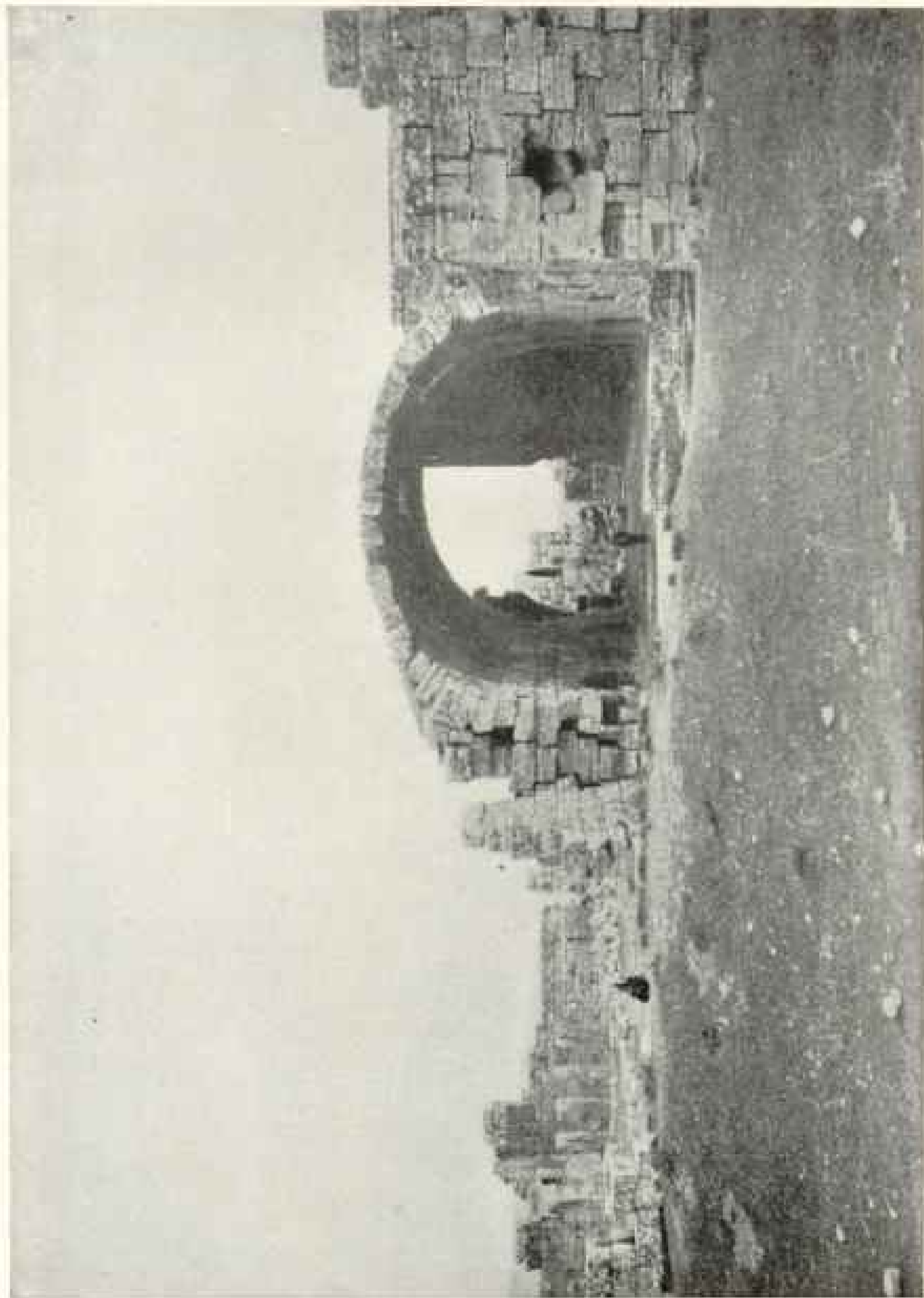
As far as the eye can see through the clear water, the bottom is literally covered with heaps of ruins. Immense pillars and marble slabs with interesting inscriptions lie one upon the other, and, as nearly as can be judged, all are in a perfect state of preservation. The protecting waters have thus far prevented the stone-cutter from tapping this inviting mine.

The temperature of the water is 91 degrees Fahrenheit, and it remains so during the entire year. The water is not unpleasant to the taste, but it is probably just as well if one refrains from drinking much of it. The springs are sulphurous, and this leads one to think that there is some truth, after all, in the statement that the waters flow from the mouth of the ancient Plutonium. The waters are also highly carbonate, the gas continually escaping. The only vegetation upon the terrace is some small sea grass which immediately surrounds the basin. Wisps of the same, coming into contact with the water, have been completely petrified, and may be gathered as mementos.

The *Thermæ*, or baths of Hierapolis, were erected with wonderful precision and care, and remind one of similar structures still to be seen at Rome. They consist of immense halls and lofty archways. There must have been huge swimming tanks filled with running water from the near-by springs. It is difficult to conceive of more splendid baths, either in ancient or modern times, than those of Hierapolis must have been. The building probably dates from the reign of Antoninus Pius. The marble facing has long since been removed.

#### THE THEATERS AND MAUSOLEUMS

In traveling over this country one cannot fail but be impressed with the magnificence of the theaters once erected by



THE BATHS AT HIERAPOLIS



THERAPOLIS: THE MINERAL SPRINGS, TEMPERATURE 91 DEGREES FAHRENHEIT (SEE PAGE 753)

the inhabitants of the early Greek kingdoms of Asia Minor. There were numerous porticos which protected the people from the sun and storms, and fountains which tempered the heat of the climate. When these theaters were at the height of their splendor the hills above them abounded in cool, shady nooks. Such was the theater at Hierapolis, which, with the single exception of the excavated theater at Miletus, is the most perfect structure in Asia Minor. To begin with, it evidently has not been laid waste by the hand of man. The entire front of the building has apparently been shaken by earthquakes, as a portion only of the proscenium still stands, the rest being a mass of ruins. The passageways which led through the beautifully arched entrances are still intact, and are decorated with festoons and foliage. The orchestra is filled with rubbish, but it is only the accumulation of time. Among the innumerable fragments of the stage architecture there are many bases of spiral and Ionic columns, as well as bas-reliefs of Roman style.

With the exception of the roof, the church of the Apostle Philip stands intact, and some fresco work may still be seen in one of the little chapels. The place is now inhabited by a band of wandering nomads who have pitched their tents close to the western wall. Their horses are stabled within the ancient church itself.

One of the four necropolises at Hierapolis is probably the best preserved in the world. Some of the finest of the mausoleums still stand erect and in as perfect a state of architecture as when first constructed. The long epitaphs on most of them may be read as distinctly as if they had been engraved but yesterday. Some of them are huge affairs and contain benches and vaults, all in perfect preservation. I remember one in particular which belonged to a rich patrician of Apollonia. There are, however, many others equally as interesting, and it is only to be wondered at that the columns and marbles, with their many inscriptions, have not been removed by the

ravaging hand of man. Perhaps some of the inscriptions which threaten wanton hands with eternal punishment have had the effect of scaring away would-be desecrators, but they did not have sufficient terrors to keep the sarcophagi from being robbed of their valuables.

Hierapolis contains many other edifices of peculiar interest. On the heights overlooking the city there is an old acropolis. Behind the church of the Apostle Philip there is an ancient theater.

At the edge of the precipice, not far from the baths, there stands a medieval castle fairly well preserved. It was probably erected from some of the older ruins, perhaps by the Crusaders, and is remarkable only as a contrast in solidity of construction as compared with the theater or church. If left to the lapse of time, the Greek and Roman ruins will be standing as today long after the castle has disappeared. Over a deep gorge to the east may be seen the buttresses of an ancient bridge which led out to the Laodicea road, the full outlines of which may still be traced along the hillside.

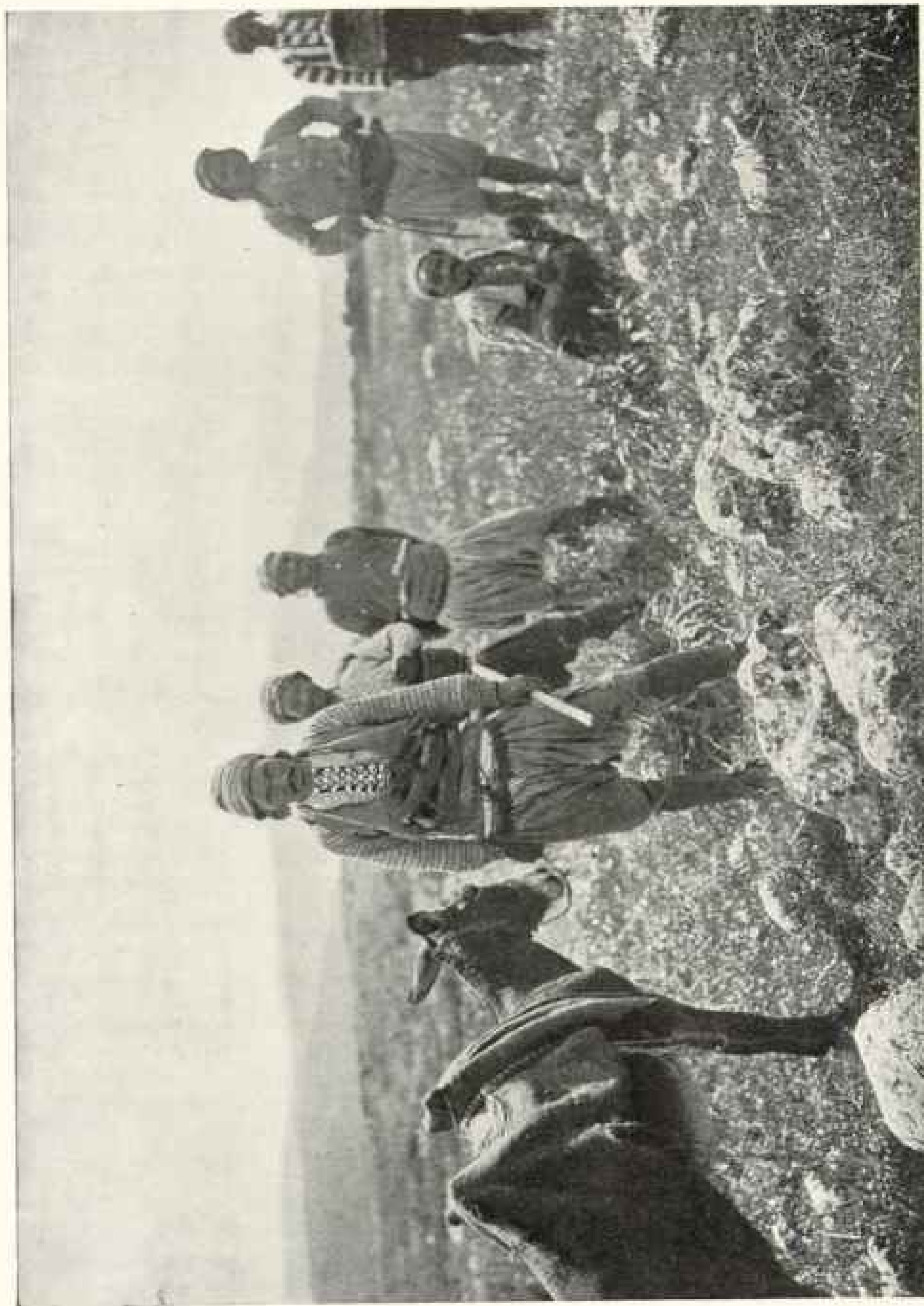
Hierapolis has had a stormy history. During the reign of Nero, Hierapolis was destroyed by an earthquake, and rebuilt with the assistance of the state. Frederick Barbarossa once fought a battle at the foot of the falls.

Hierapolis, as well as Laodicea, was famous for wool and for dyeing cloths. The people were thrifty and full of enterprise. One manufacturer of Hierapolis tells us on his mausoleum that he had visited Rome no less than 72 times in the interest of his business. That man would be worth the weight of his mausoleum in gold if he were alive today and we could secure him to push American commercial interests in Asia Minor! The population of the city seems to have been employed chiefly in spinning and weaving. Such were these cities once. Today they are forsaken, and the intervening valley, one of the richest spots on earth, is nothing but a dreary waste. Speaking of the splendors of these cities at one time, no less an authority than Gibbon says:



CITY OF THE DEAD: HIERAPOLIS, A PORTION OF THE CASCADES IS SEEN IN THE DISTANCE





WANDERING SHEPHERDS OF ASIA MINOR

## THE SPLENDID CITIES OF THE EAST

"The provinces of the East present the contrast of Roman magnificence with Turkish barbarism. The ruins of antiquity scattered over uncultivated fields, and ascribed by ignorance to the power of magic, scarcely afford a shelter to the oppressed peasant or wandering Arab. Under the reign of the Cæsars, the proper Asia alone contained five hundred populous cities, enriched with all the gifts of nature and adorned with all the refinements of art. Eleven cities of Asia had once disputed the honor of dedicating a temple to Tiberius, and their respective merits were examined by the senate. Four of them were immediately rejected as unequal to the burden; and among these was Laodicea, whose splendor is still displayed in its ruins. Laodicea collected a very considerable revenue from its flocks of sheep, celebrated for the fineness of their wool, and had received, a little before the contest, a legacy of above £400,000 (\$2,000,000) by the testament of a generous citizen. If such was the proverty of Laodicea, what must have been the wealth of those cities whose claim appeared preferable, and particularly of Pergamus, of Smyrna, and of Ephesus, who so long disputed with each other the titular primacy of Asia?"\*

The situation of Hierapolis is unique, and the view from the terrace is one not easily forgotten. The Coliseum at Rome looks beautiful in the moonlight; whoever stands upon Vesuvius and beholds Pompeii and Herculaneum as they lie in one vast cemetery far below, with the Bay of Naples and Capri in the distance, thinks the scene one of surpassing beauty; the castle of Edinburgh overlooks an historical city envircated within an amphitheater of hills; the Koenigsstuhl at Heidelberg looks down upon the distant Rhine and all its associations. All these I have seen, and more, but Hierapolis may lay claim to be in a class to itself. I have seen this sepulchred

\*The Decline and Fall of the Roman Empire.

city in the moonlight, too, when the orb of night rose beyond Mount Cadmus and stood above Laodicea, casting its full light across the valley upon a plunging cataract, only there was no sound, no roar. This cataract, like the city above, was silent, frozen, turned to stone. The stillness of the night was only broken occasionally by the howl of some savage dog which had taken refuge in an ancient tomb. The glimmering Lycus and the snow upon the distant peaks of the Salbacus range but tempered the scene with their reflecting rays. It is a place for retrospection, and the mind lightly conjures up images of the martial hosts of Cyrus the Younger or the more peaceable missions of Herodotus and Strabo. The fact that one is away off in the heart of southern Asia Minor, far removed from modern civilization, yet amidst the chief legacies of an ancient one, lends a charm to a journey thitherward which is not always an asset in the ordinary routes of travel.

An excursion to Hierapolis is not an easy matter. To begin with, the consent of the authorities is necessary, for the trip can only be made under the protection of a strong escort. This escort is indispensable, because of brigands and savage dogs. While there is less brigandage in the interior of Asia Minor than there is in the districts immediately surrounding Smyrna, yet the country is very unsafe on that account, and if the traveler ventures out alone he does so at his own risk. I have never seen such ferocious curs in all my life as I saw among the necropolises of Hierapolis. There were dozens of these savage dogs, and they belong to the Yuruks, or nomads who dwell in tents among the ruins. The beasts are only partially quiet when the Yuruks accompany the visiting party, but one must always have a revolver ready to shoot at a moment's notice, for they hang about and watch every movement, and their growls and actions are such as to make the stay at the west necropolis extremely unpleasant. One's chief desire under these circumstances is to shoot every cur in sight, but suc-

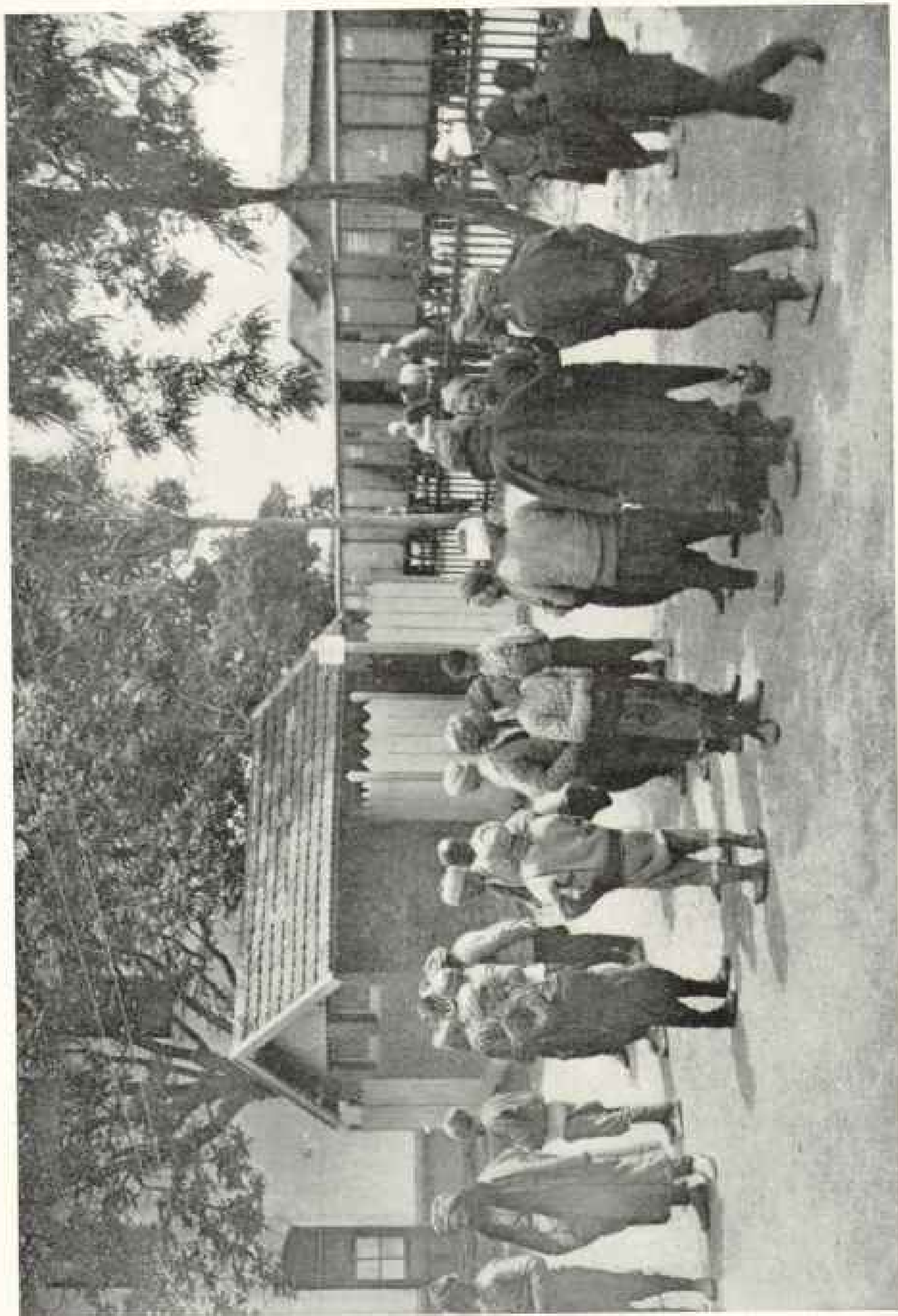


Photo from Mrs. Charles Schaffer.

WAITING FOR A TRAIN: ASIA MINOR

procedure would but bring about some shooting on a larger scale than might be comfortable, for the Yuruks are very much attached to their dogs. As they are all heavily armed, and would not hesitate to defend the dogs, it is always best, therefore, for the visitor to be meek and peaceful.

From the archaeologist's point of view I have been informed that Hierapolis is a negative quantity. The ruins are chiefly Greek and Roman, and it is impossible to excavate the city, which belongs to an earlier period, on account of the hardened calcareous deposits. One could only dig by blasting, and such a method would result in shattering the

ruins. The only possible way in which such work could be carried on would be by tunneling under the surface and removing the prehistoric finds piecemeal from the cliff.

During my stay of five days in this part of the country I was shown every attention by Mr Pantasopoulos, of Denizli, who, by the way, has one of the finest flour mills in Asia Minor, partly equipped with American machinery. He very kindly assisted me in getting horses, provisions, etc., for an excursion to the ruins, and I am indebted to him otherwise for much courtesy.\*

\* To be continued in the December number.

## BULGARIA, THE PEASANT STATE

**N**O PEOPLE have greater cause for satisfaction and honest pride in what they have accomplished during the last 30 years than have the Bulgarians. Their progress in self-government and education since 1877-8, when, with the aid of Russia and Rumania, they threw off the Turkish yoke, is one of the most remarkable records ever made by any people within a similar space of time. Industry, courage, and compulsory education have won for them a position unsurpassed by any country of their size, and have made them in less than a generation a powerful, and perhaps the determining, factor in the settlement of the Eastern question.

When the Turks were driven out of Bulgaria after 500 years of misrule and anarchy, and the Bulgarians were allowed a semi-independence by the Congress of Berlin, they found themselves very poorly equipped to form a new nation. Without money, with only a few educated leaders and the mass of peasants illiterate, surrounded by jealous and much more powerful states, their future independence seemed remote, if not impossible of achievement. But the leaders had grit and common sense, and realized that there were three essentials: (1) To educate the people; (2) to grant

religious tolerance to all, and (3) to require of every man two or three years' military training, so that every Bulgarian would be a capable soldier in time of need.

As a result of the rigorous system of education which was inaugurated, practically all young Bulgarians can now read and write. Whereas in 1879 there could not have been 20 per cent of the male city population able to read and write, today 92 per cent of the male city Bulgarian population between the ages of 10 and 30 can read and write and 74 per cent of the female, and 68 per cent of the male and 18 per cent of the female rural. This is a result which none of the countries, neighbors of Bulgaria and others to the west, can show.

In 1906 there were 4,584 elementary schools, with 8,785 teachers and 400,216 pupils. Nearly 10 per cent of the population are attending primary school.

In 1879 there was only one school in the whole country which could pretend to the title of gymnasium. There are now eight gymnasiums for boys and five for girls, four normal schools for preparing competent teachers for the primary schools, a seminary, two special commercial schools, and a university with three faculties—history and philol-

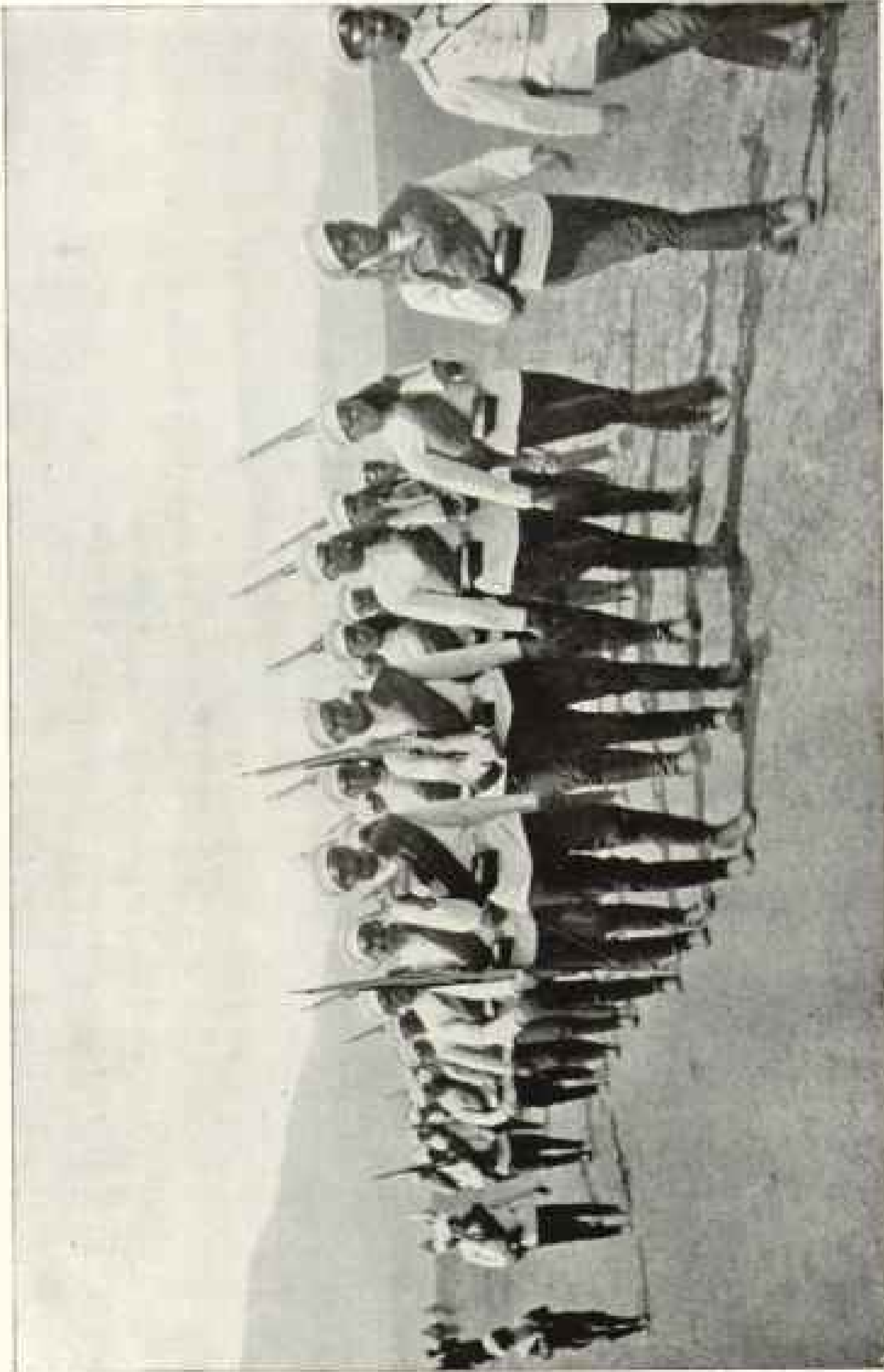


Photo from "The Balkan Trail," by Frederick Moore (Macmillan)

BULGARIAN INFANTRY

Bulgaria maintains a standing army of 52,000. But as every Bulgarian must serve two years in the army in his early manhood, and is furthermore liable for reserve service until 40, the government could within one month after declaration of war put into the field a force of 400,000 drilled and most effective soldiers. For a country having a population of only 4,200,000 this is an extraordinary showing.



Photo from "The Balkan Trail," by Frederick Moore (Macmillan)

#### COUNTING ANIMALS FOR MILITARY SERVICE: BULGARIA

ogy, physics, mathematics and natural history, and law.

The university, founded in 1887, is attended by 700 students, among them several women, who three years ago were admitted on an equal footing with the men. The state spends for this university 500,000 francs, or \$100,000, yearly.

Every registered Bulgarian subject is a free elector, and every one who can read and write is eligible to all institutions provided by the constitution.

In appreciating the progress made in Bulgaria, it must be borne in mind that the country is situated within a very absorbing political atmosphere, which has certainly been a drawback to its fuller development.

Twenty-five years ago the country had recourse to foreigners for professors, engineers, men of law, financiers, and spe-

cialists for all the administrative branches—financial, industrial, economical—and for the organization and command of public forces. Now all this work is done by specially educated Bulgarians. There is not a foreigner in the service of the state.

Bulgaria is a little larger than Indiana. Its area of 38,333 square miles contains a population of 4,200,000. The country, for its size, is mountainous. It is traversed by the Balkans from west to east, and bounded to the west by the Rhodope chain. The highest peak is 8,930 feet.

The density of the population is 105 to the square mile; 73 per cent of the people are engaged in agriculture; 10 per cent are occupied in industrial pursuits; 5 per cent in commercial; 2 per cent in the professions; 2½ per cent in the military and public services; 1½ per cent in



Photo from "The Balkan Trail," by Frederick Moore (Macmillan)

SCENE IN THE MARKET PLACE OF SOFIA, THE CAPITAL OF BULGARIA

transportation business, and 6 per cent in various work.

Of the area, 33 per cent is under cultivation; 29 per cent is covered by forest or wood; 10 per cent is pasture land, and 27 per cent is covered by the roads, beds of rivers, fallow and waste lands.

Agriculture, the main source of wealth of the country, is still in a primitive condition. Want of capital has retarded improved methods and machines, but the Bulgarian government is diligently striving to educate the peasants by agricultural schools, by sending out itinerant professors and inspectors of agriculture, and by distributing better kinds of seeds, etc.

Large estates held by individuals are unknown. The land is owned by the peasants, the average holding being about 18 acres. There are no paupers except in the large towns.

"The character of the Bulgarians presents a singular contrast to that of the neighboring nations. Less quick-witted than the Greeks, less prone to idealism than the Servians, less apt to assimilate the externals of civilization than the Rumanians, they possess in a remarkable degree the qualities of patience, perseverance, and endurance, with the capacity for laborious effort peculiar to an agricultural race. The tenacity and determination with which they pursue their national aims seem likely in the end to give them the advantage over their more brilliant competitors in the struggle for hegemony in the Peninsula. Unlike most southern races, the Bulgarians are reserved, taciturn, phlegmatic, unresponsive, and extremely suspicious of foreigners. The peasants are industrious, peaceable, and orderly; the vendetta as it exists in Albania, Montenegro, and



Photo from "Through Savage Europe," by Harry De Windt (Lippincott)

A BULGARIAN PEASANT

There are no large landed proprietors in Bulgaria; the average holding is 18 acres





Photo by F. J. Koch

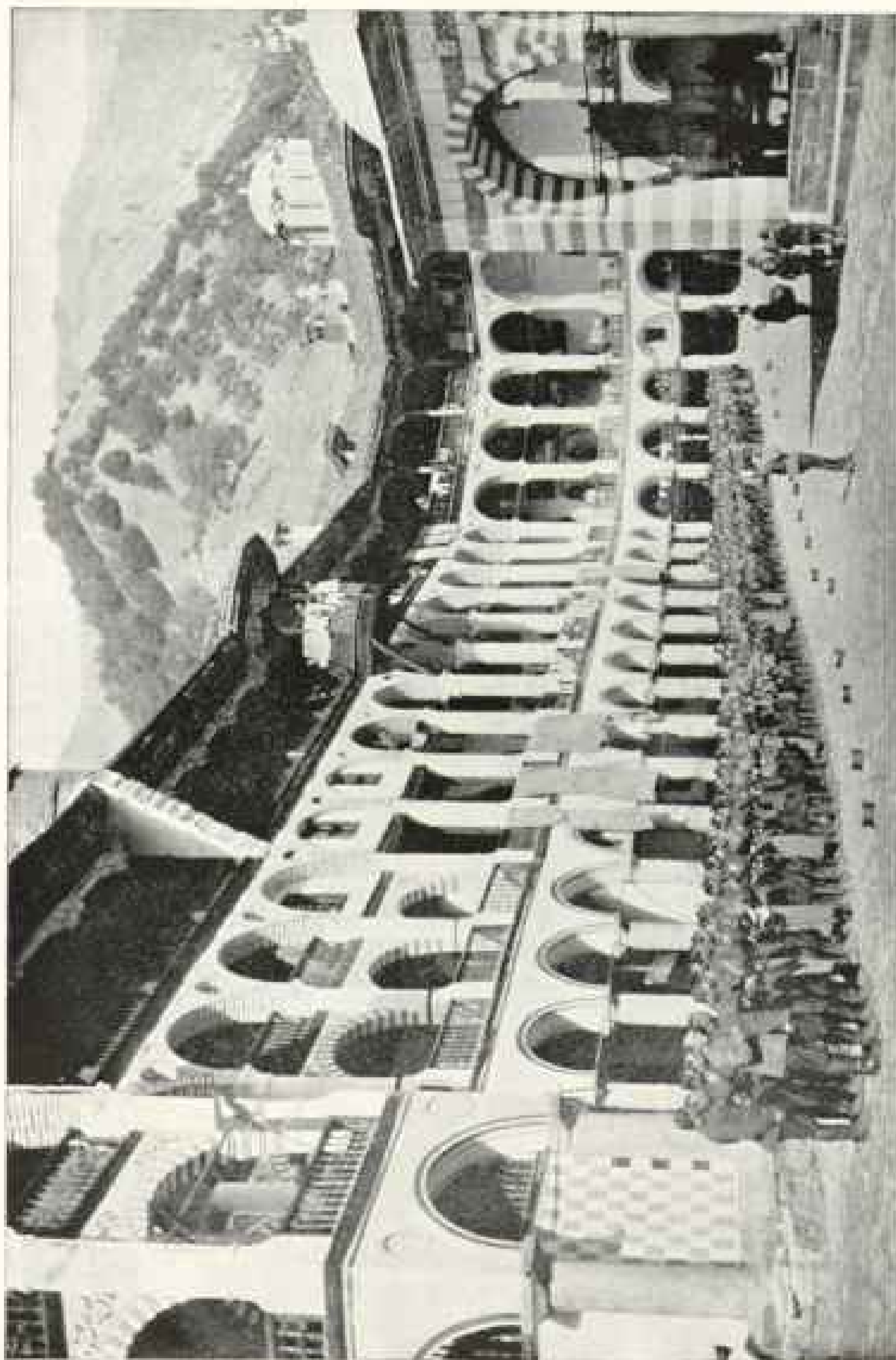
## PRIEST AND PEASANT: TIRNOVO, BULGARIA

Tirnovo was the ancient capital of Bulgaria. It was here that Prince Ferdinand was crowned "Czar of the Bulgarians," resuming the title which had ceased when the Ottomans conquered Bulgaria 519 years ago. The Bulgarians are of the Slavic race, but get their name from the Bulgars, a people of Finnish stock, who came from the southeastern steppes of Russia about 800 A. D., and established a powerful state across the Danube. The Bulgars eventually lost their individuality, being merged into the more numerous Slavs.

Macedonia, and the use of the knife in quarrels, so common in southern Europe, are alike unknown."<sup>\*</sup>

<sup>\*</sup> J. D. Bourchier, many years correspondent of the London Times in the Orient, in *Encyclopedia Britannica*, Vol. 26.

The Bulgarians owe much to the American missionaries, both directly and indirectly. For one thing, the Americans have excited, without intention, the jealousy of the Orthodox Church, which has undoubtedly assisted in keeping the



BULGARIAN SOLDIERS QUARTERED AT THE RULO MONASTERY, STANDING FOR GRACE BEFORE SUPPER.

"A few minutes before the supper-hour pots of stew or soup, or other army rations, were set in a row on the stone pavement. When the call to mess was sounded the soldiers fell in behind the pots, each with half a loaf of bread and a tin spoon, and stood facing the chapel. The drums beat again, and with one accord the line of yellow-coated men doffed their caps. Their officer, likewise reverencing, pronounced the grace, and the company made the sign of the cross three times in drill regularity. The men then seated themselves, eight round a pot, and began their meal in the golden light of pine torches fastened to the great pillars which support the balconies."—FARDEACK MOUNT.



A CORNER OF THE MONASTERY AT RILO Photos by F. J. Koch

IN THE COURTYARD OF THE RILO MONASTERY

This monastery at one time sheltered several hundred monks, but since Bulgaria obtained her freedom the number has dwindled to about 50. The great building was built for siege generations ago. It was, however, always exempt from ravage by Turkish troops.



ON THE ROAD NEAR PLEVNA, BULGARIA      Photos by E. J. Koch

The woman is spinning the thread for the home-made dress as she walks to town.

SCENE IN A BULGARIAN VILLAGE



SCENE IN SOFIA. NOTE THE PARIS PARASOL. Photo by P. J. Koch

When Bulgaria became semi-independent in 1878, Sofia was a very dirty town, with streets unpaved or paved with rough cobble stones, and with but one house of any pretensions, the Turkish "konak." Today, besides a palace and a parliament building, there are a national bank, a post-office, a military academy, several vast barracks, and many other government buildings. There are parks and public gardens where bands play on summer evenings; new streets and avenues have been laid out, and some of the narrow ones of Turkish times have been widened; substantial shops and hotels mark the business quarter, and modern homes the avenues.

priests active in developing their own educational institutions. It was not until the American missionaries opened a school for girls in their land that the Bulgarians began to educate their women. But that was many years ago, before Bulgaria became a quasi-independent state; now the state schools afford every advantage the Americans can offer, except the American language.

The freedom of religious opinion granted throughout the little kingdom is

described by Frederick Moore in "The Balkan Trail:"

"The Bulgarian government attempts to administer justice to all denominations and to maintain religious equality before the law, and the government comes fairly near to this aim. The Greeks complain that Greek schools are not subsidized, but Turkish schools are maintained by the state.

"It is due to the freedom of religious opinion existing in Bulgaria that the mis-

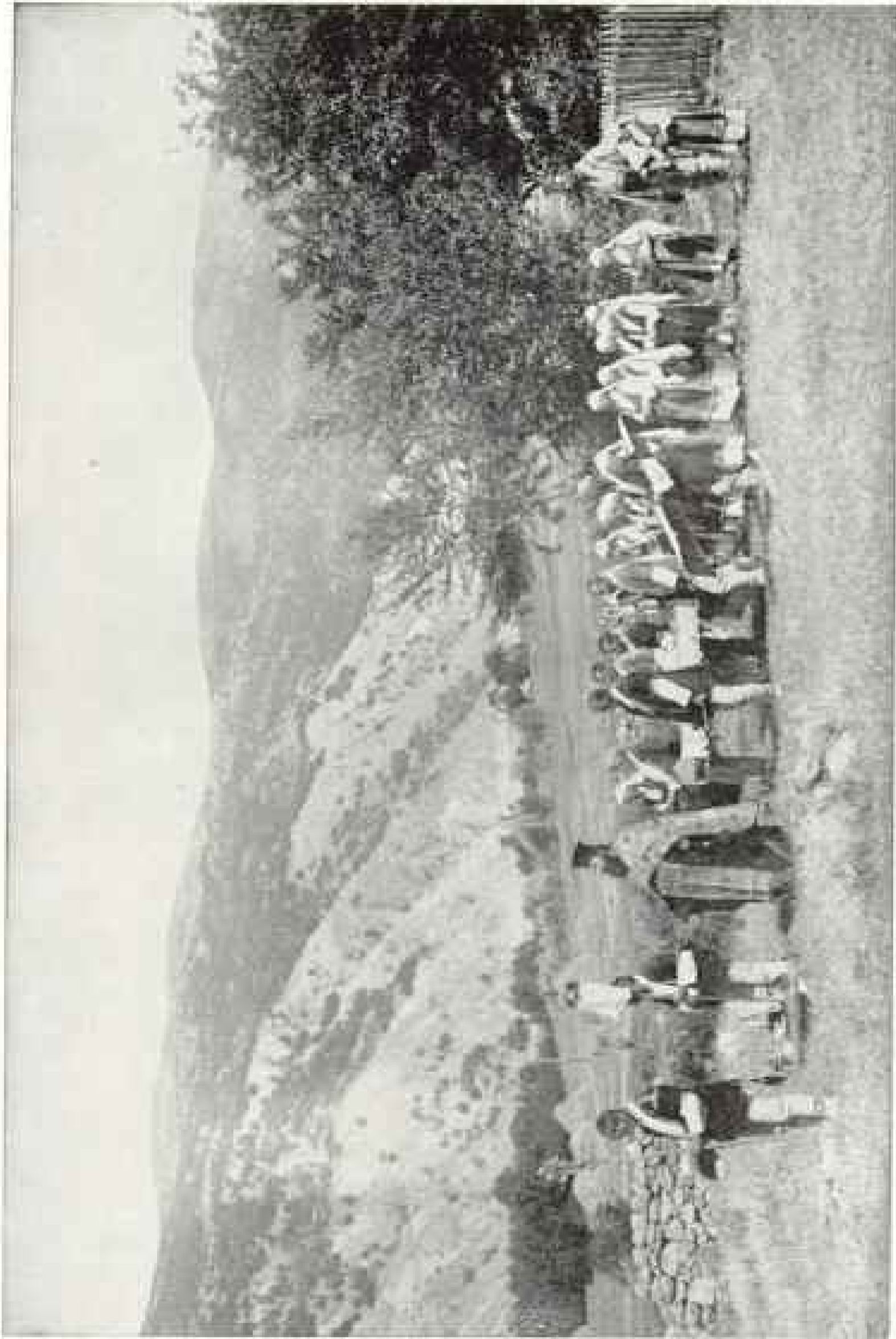


Photo from "Through Savage Europe," by H. De Windt (Lippincott)

A BULGARIAN FUNERAL



Photo from "Through Savages Europe," by H. De Wint (Lippincott)

DANCING THE KOLO, THE BULGARIAN NATIONAL DANCE



Photo from "Through Savage Europe," by H. De Windt (Lippincott)

A BULGARIAN BELLE IN HER GARDEN



sionaries have become so closely allied with the Bulgarians, for in no other Balkan country, except perhaps Rumania, is there the same liberty of thought. The Servian government prohibits by law all proselytizing to Protestantism. The Greeks—though they welcomed the aid and sympathy of the missionaries in the Greek war of independence—have since enacted laws which make the teaching of "sacred lessons" in the schools compulsory, lessons of a character which the missionaries refuse to disseminate. The Sultan would not tolerate the missionaries in his dominions if they attempted to convert Mohammedans, while the few Turks who have deserted Mohammedanism have mysteriously disappeared; and it has been found almost impossible to convert Jews.

"So the missionaries are left only the Bulgarians on whom to work. Their schools and churches are open to other nationalities in both Bulgaria and Macedonia; but for the double reason that they are institutions of Protestants and of Bulgarians very few of the other races ever seek admission.

"There are few Jews in Bulgaria as compared with the number in the border State of Rumania; the Jews cannot thrive on the close-fisted Bulgars. The Jews who live among them are fairer in business transactions than their co-religionists anywhere else in the Balkans.

"The Mohammedan in Bulgaria is better off than his brother in Turkey, who, except that he holds the position of the man with the gun, suffers under the Ottoman rule almost or quite as much as does the Christian. Nevertheless, there is a continuous exodus from Bulgaria of Turks and Pomaks (Bulgarians converted to Mohammedanism) to the land where the Mohammedan rules. And when these Turks pack their goods and chattels and start to trek, they do not stop until they have passed beyond the Bosphorus. They seem to think—as many men have thought for many years—that the day of Turkish power in Europe will soon be past.

"Bulgarians of intelligence and educa-

tion put little faith in the promises of the present Russian government. But Russia holds a fast grip on the masses of the people; the peasants are grateful for their deliverance.

"But the model of the Bulgarians is by no means the great Slav country. They can boast of having attained in a quarter of a century a liberty which the Russians have not yet secured. The institutions of Bulgaria are liberal in principle, and often in practice; the constitution is democratic. The suffrage is extended to every male adult, as a result whereof seven Turks represent the Mohammedan districts of the Danube and Turkish border in the Sobranje, and sit among the other deputies without removing their fezzes."

Mr H. De Windt, author of "Through Savage Europe," was likewise impressed by the enterprise of the Bulgarians:

"This country (Bulgaria) will not stand still; not a year, nay, not even a month, passes that important reforms and improvements do not occur in her government and the efficiency of her formidable army. It was suggested to me while traveling through Rumania that an alliance may one day take place between the latter country and Bulgaria; and in this case even a great power, in the event of hostilities, would surely find her hands full.

"A glance at the statistics of Bulgaria will show how far she surpasses neighboring countries in energy and enterprise. What with factories, cultivated land, horse and cattle breeding, mines, exploited forests, public works, and compulsory education, the budget is already in proportion to the progress of the country. Greece and Servia no doubt have budgets nearly equal to that of Bulgaria, but their public debts are far greater, with smaller territories and populations, and consequently less wealth. The public debt here amounts to 78 francs per head; that of Russia is more than double this amount. In 1880 the exports and imports of Bulgaria amounted to only 32 millions (francs); in 1904 they had risen to 390 millions (francs)!"



SERVIAN GIRLS OF NISCH, SERVIA

Photo by F. J. Koch

## SERVIA AND MONTENEGRO

**S**ERVIA is about the size of Vermont and New Hampshire combined, while Montenegro would make only three Rhode Islands. Little Montenegro has the proud distinction of never having been conquered by the Turks.

Both countries are peopled by the Serbs, a Slavic tribe, who entered the country about 650 A. D. at the invitation of Emperor Heraclius, who planned them as a bulwark against the Avars. During the twelfth to fourteenth centuries the kingdom of Serbia embraced Bosnia, Albania, Macedonia, Thessaly, part of Bulgaria, and all of the Greek

peninsula except Attica and the Peloponnese. When the Turks overran the country a band of Serbians withdrew among the mountains now known as Montenegro. Among these peaks, which range from 2,500 to 8,000 feet in height, they successfully defended themselves against repeated attacks from the powerful Ottoman Sultans.

Servia resembles Bulgaria and Rumania in not having any large landed estates. All the arable land is divided into small holdings, not exceeding on the average 20 acres. One of the conditions under which Servia obtained her independence in 1878 (by the Treaty of Ber-



A GIPSY IN SERVIA  
There are thousands of gipsies in each of the Balkan states. They do no work and earn their living by begging and stealing



SERVIAN PEASANTS IN BELGRADE, THE CAPITAL OF SERVIA  
Come to town on a holiday



Photo by R. J. Koch

## THE METROPOLITAN ON CORONATION DAY: BELGRADE, SERVIA

lin) was that the government should pay the Turkish landlords for their estates, which was done. The farms were then divided among the people. Serbia has a population of about 2,600,000 and Montenegro about 250,000.

"Serbia has been aptly christened 'The Poor Man's Paradise,' for we traveled from end to end of the country without encountering a single beggar, while the agricultural laborer seemed almost as

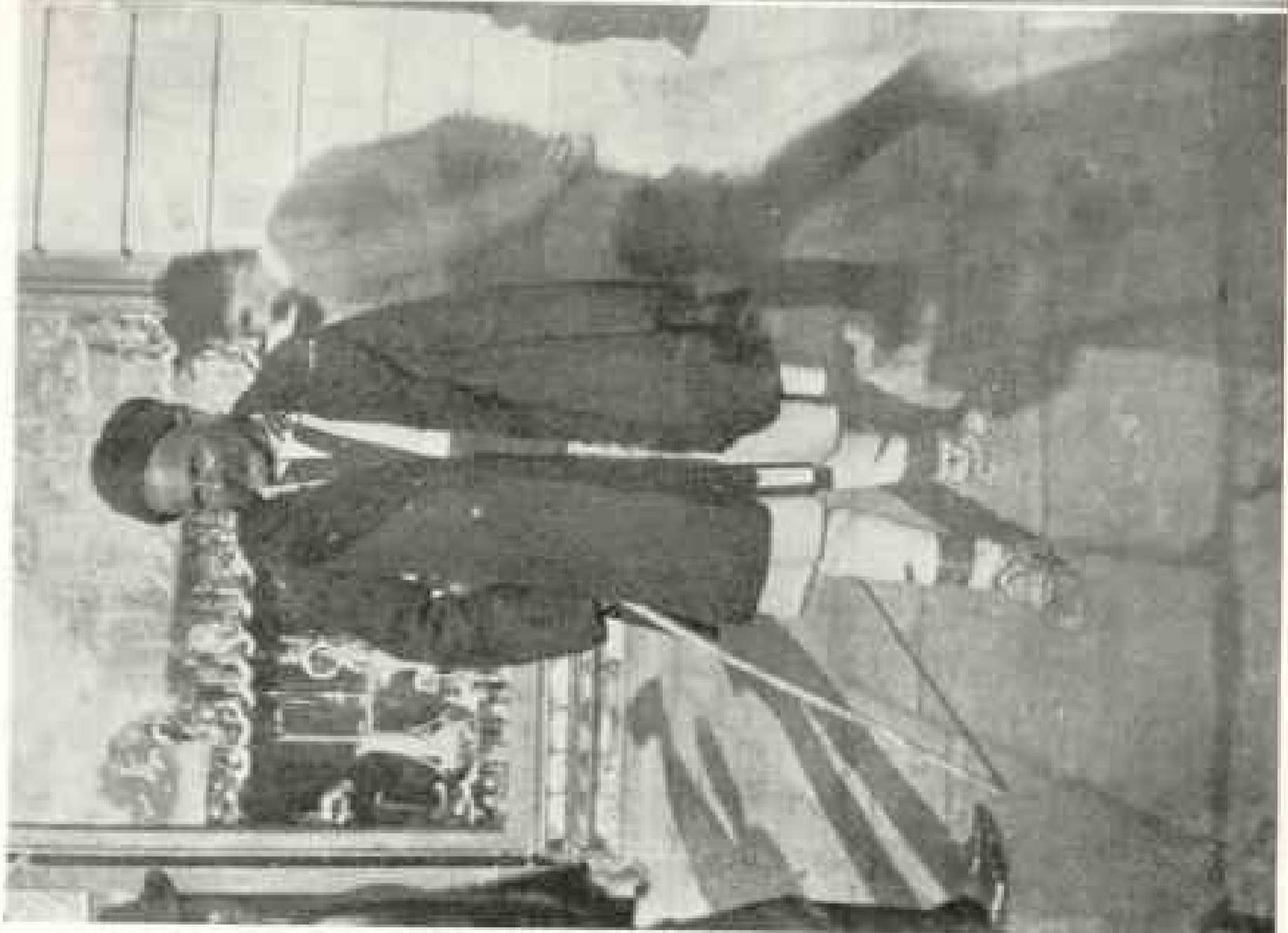
affluent as a small farmer in England. But Servians have a prettier name for their native land, 'The Garden of the Balkans,' which it undoubtedly is, being the most picturesque and fertile of all the Balkan states. The farther you roam inland from the flat, marshy banks of the Danube the richer becomes the soil and more beautiful the scenery, although this is not, like Bosnia, a land of comfort and security. Here you must rough it, some-



Photo from "Through Savage Europe," by H. De Windt (Lippincott)

#### A PRINCE OF MONTENEGRO

There are only a few roads in Montenegro, and these were only recently constructed to connect the capital with the coast and principal villages. The Montenegrins did not desire roads because they feared by constructing them they would open the country to their enemies.



A SERBIAN: BELGRADE



MONTENEGRIN SOLDIERS

Photos by F. J. Koth



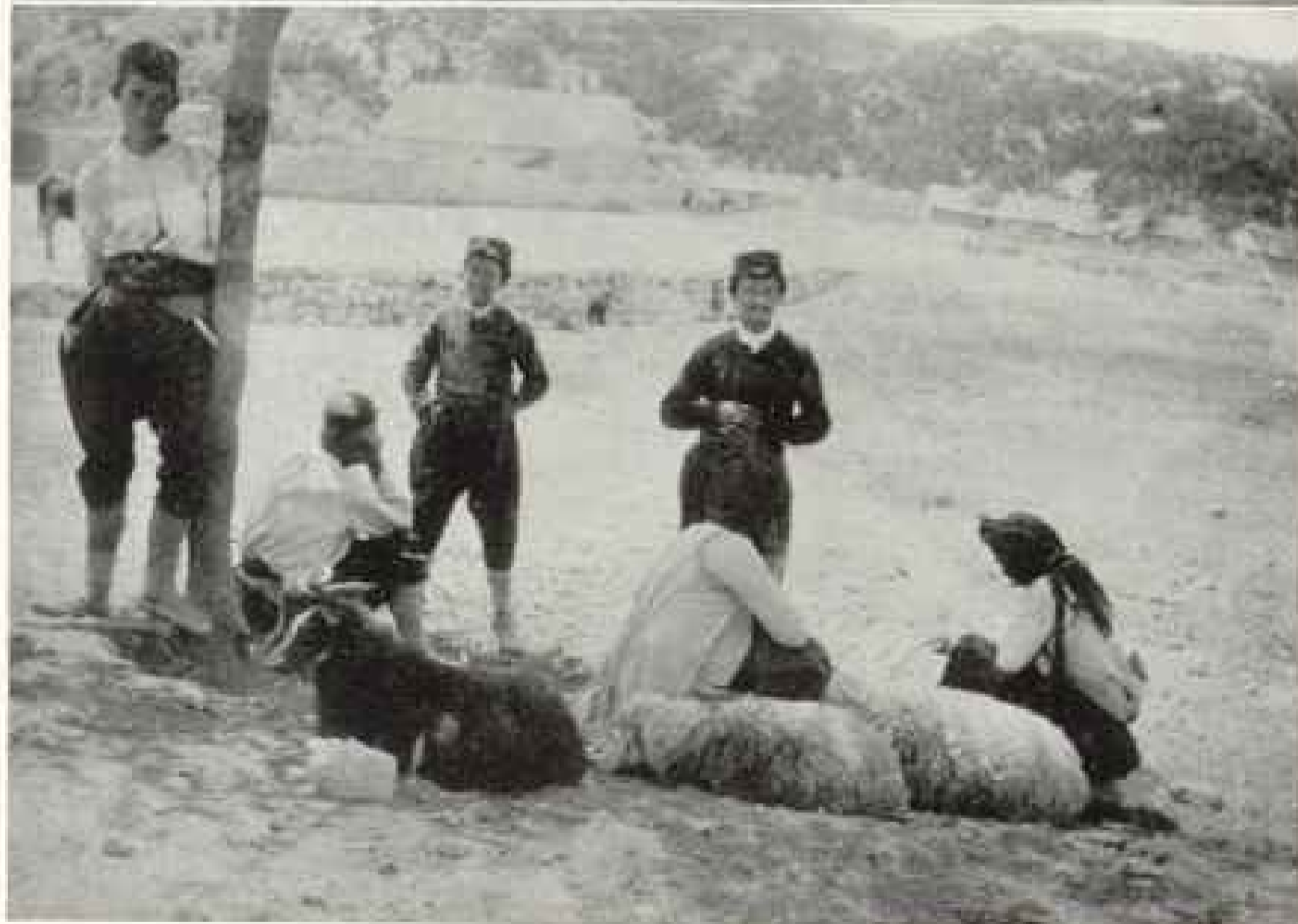
THE TOWER OF SKULLS, NISCH, SERVIA

"The Tower of Skulls, for which Nisch is famous, is now a mere name for a column of bricks and clay about twelve feet high, where niches once occupied by the heads are the only traces left of this Turkish trophy, gruesome enough when seen by Lamartine, early in the last century. The sight was then a sickening one, for many of the skulls were furnished with hair and hundreds of grinning rows of teeth added to the horror of the spectacle. The story connected with the place is a romantic one, and goes to prove that Servian warriors of olden days were anything but the poltroons they are said to have become in modern warfare. One Stefan Sidielitch, commander of a brave little band, after stoutly defending an outpost near Nisch, was defeated by overwhelming odds, and sooner than surrender exploded the powder magazine, killing himself, his gallant followers, and an even greater number of the enemy. The Pasha, infuriated at the loss of his men, resolved to punish the Christian population by collecting the heads of their vanquished ones, and erecting this ghastly monument—now barely visible for the wreaths which have been placed on it. A few years ago a pretty chapel was erected over this spot by order of the late King Alexander, and the collection of grinning skulls which once formed the tower have now been burned."—H. DE WINDT in "The Balkan Trail."

times severely, away from the railway, and some of the country roads are not over-safe at night-time.

"Servia is an agricultural El Dorado, and if the untutored peasant can now make a living by antediluvian methods, what might not be accomplished with capital and machinery? I doubt whether there is at present a steam plough throughout the whole country, and yet I

met at least half a dozen farmers at Kragujevatz with incomes ranging from 300 pounds to 500 pounds a year. Every season there are two crops of hay, wheat, and barley; while maize, oats, hemp, and tobacco grow like weeds. In pig-breeding alone there are millions to be made, and the rearing of horses and cattle on a large scale would be equally lucrative."—H. DE WINDT.



Photos by F. J. Koch

WELL-TO-DO CITIZENS OF BELGRADE, THE CAPITAL OF SERVIA

HERDERS AT CETTINGE, THE CAPITAL OF MONTENEGRO





MONTENEGRINS AT CETTINGE

Photos by F. J. Koch



SERBIAN WOMEN AT BELGRADE

Photos by F. J. Koch

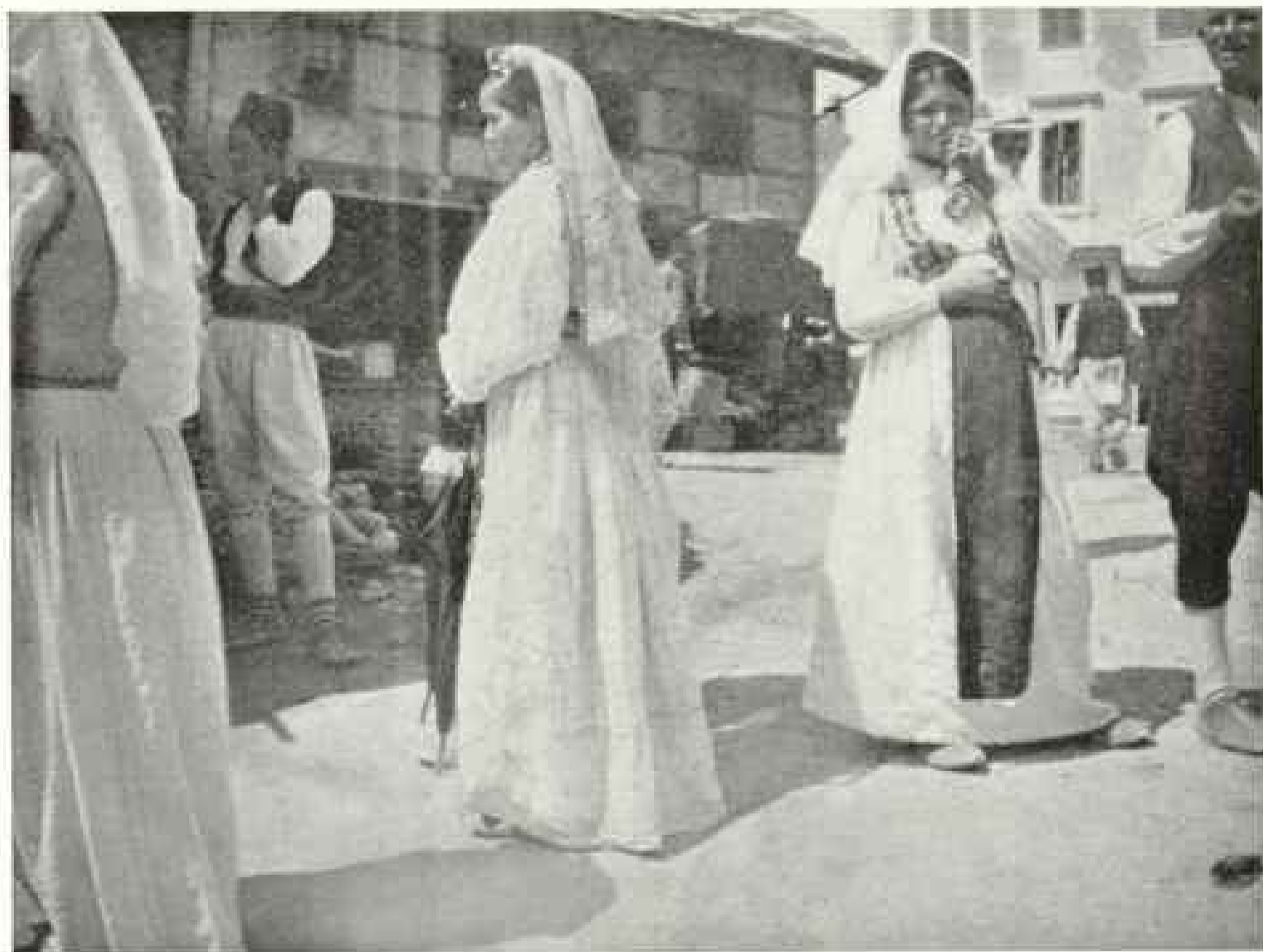
Note the aprons which are embroidered by hand. The American shoe has not yet become popular in rural Serbia

TURKISH WOMEN IN HERZEGOVINA

"Physically the Montenegrins are among the largest and finest people in Europe, and the conditions of their mountain life in a poor country have developed peculiarities that make them easily distinguishable from the Servians. They are a race of warriors, always ready to take arms against external encroachments, and equally ready to defend at home what they regard as their personal rights. They have thus the reputation of being excitable, quarrelsome, and violent, but every man, even

the poorest, has the bearing and dignity of a gentleman. Theft is unknown, and drunkenness almost unheard of. A recent report from a town official said that the only persons who had been in the prison for a half year were five men who had told ghost stories which were prejudicial to public morality. Women are universally respected. A woman may go in safety anywhere in the country."\*

\* Consult article on Montenegro in "New International Cyclopaedia," Vol. 12.



STREET SCENE IN SOUTHERN HERZEGOVINA

Photo by F. J. Koch

The people of Bosnia and Herzegovina, the two provinces which have just been formally annexed by Austria-Hungary, after being governed by the latter country since 1878, are mostly Serbs. For descriptions of these provinces, see "Where East Meets West," by Miss M. E. Coffin, in the May, 1908, number, and "The Great Turk and His Lost Provinces," by William E. Curtis, in the February, 1903, number of the NATIONAL GEOGRAPHIC MAGAZINE.

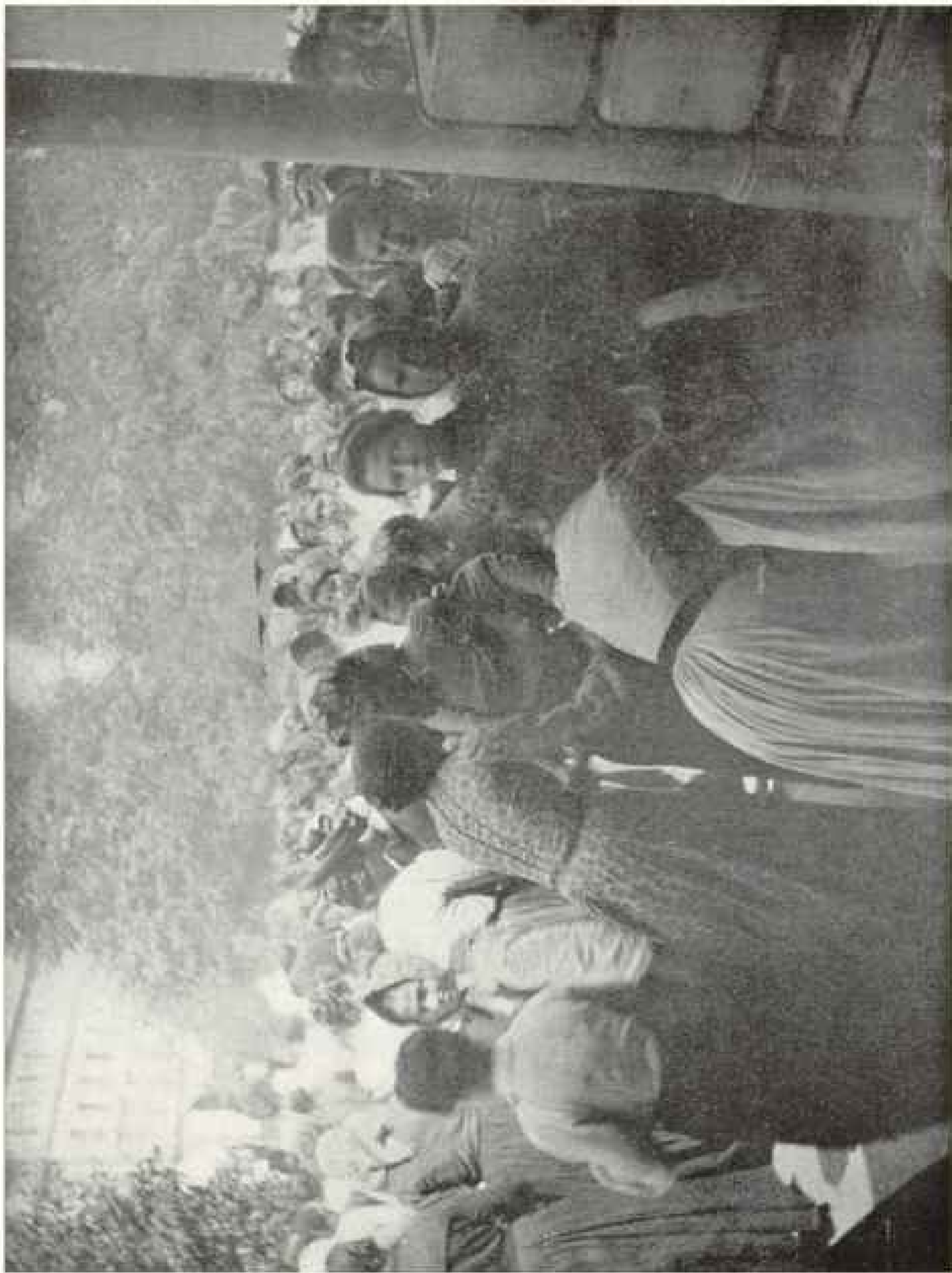


Photo by W. J. Koch  
SEARCHING EMPLOYEES AT A GOVERNMENT TOBACCO FACTORY, SARAJEVO, BOSNIA

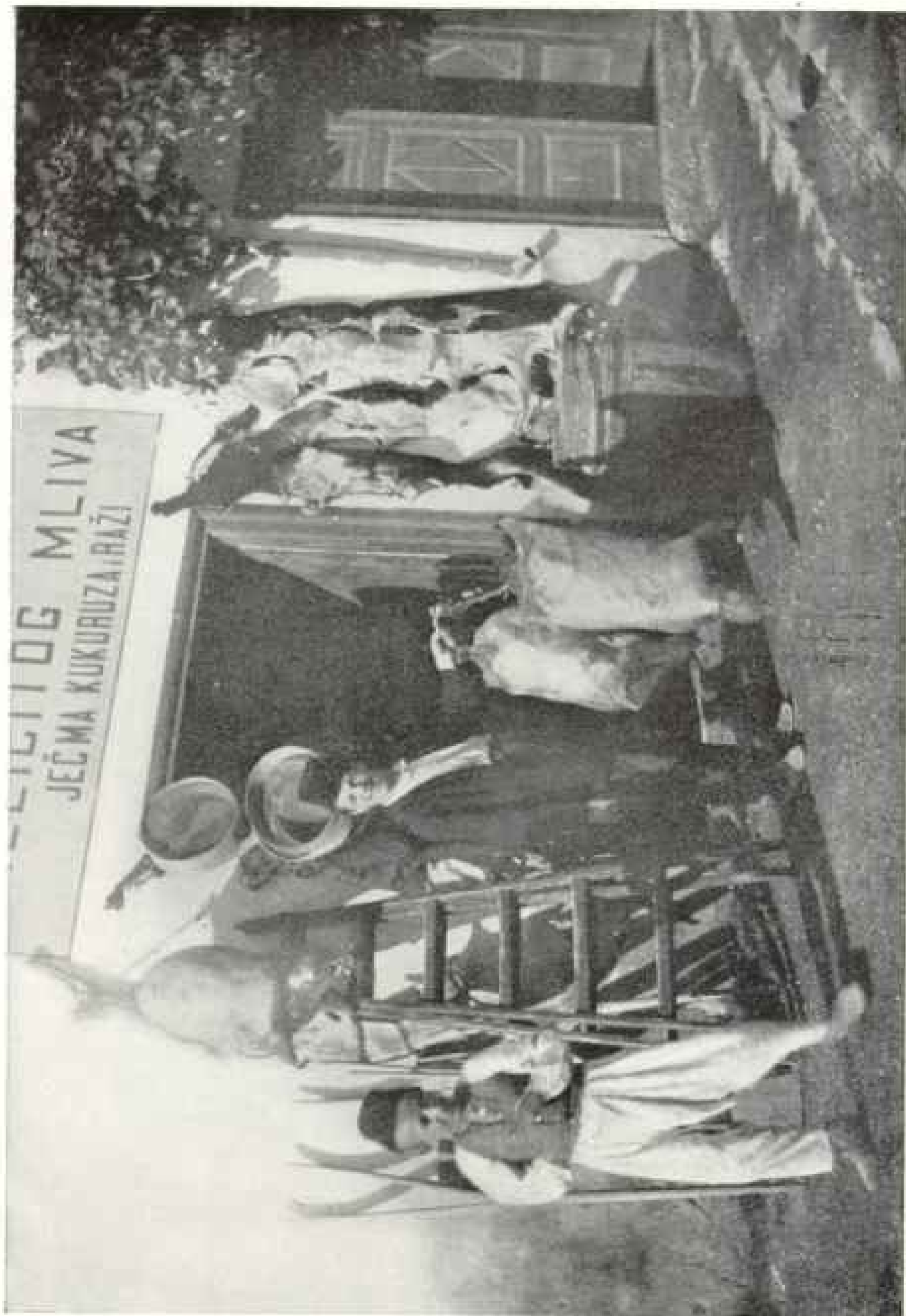


Photo by P. J. Koch

WATER "FLASKS" FOR SALE AT MOSTAR, HERZEGOVINA

Each "flask" is a goatskin



Photo from "Through Savage Europe," by H. De Windt (Lippincott)

VEILED WOMEN OUT WALKING: MOSTAR, BOSNIA



A ROMAN BRIDGE AT MOSTAR, HERZEGOVINA Photos by F. J. Koch

A CORNER IN A MOSLEM CEMETERY: BOSNIA

The turban marks a man's grave; the other post a woman's.

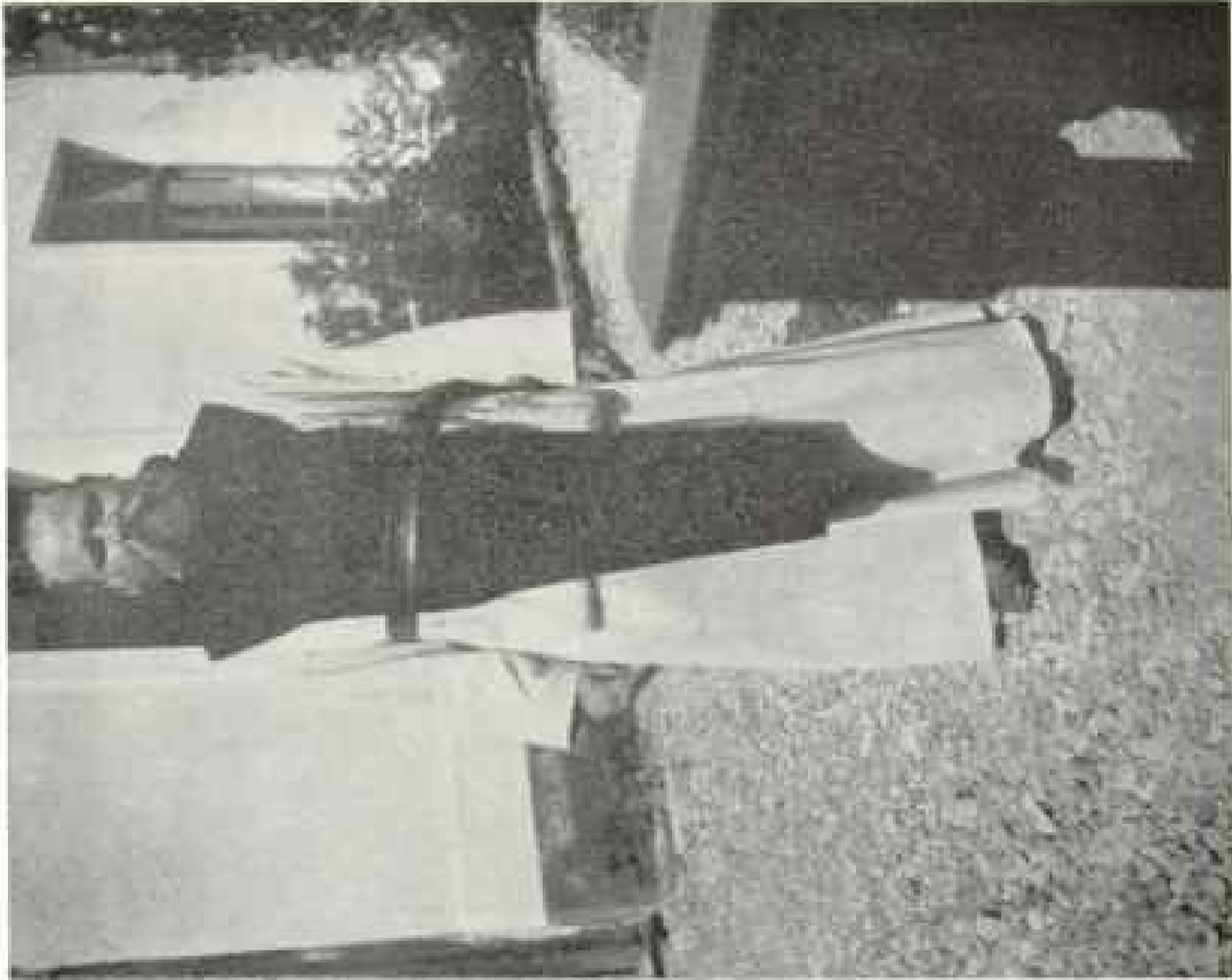


MERRYMAKERS IN BOSNIA

*Photos by T. J. Koch*

TURKS IN BOSNIA





Photos by P. J. Koch

A TRAPPIST MONK: BOSNIA



A CITIZEN OF BOSNIA: A DERVISH, WHO IS A LABORER  
BY DAY AND WHIRLING DERVISH AT NIGHT



Photo by F. J. Koch

A GREEK OF SALONIKI, EUROPEAN TURKEY

## NOTES ON MACEDONIA

**T**HE Christians of Macedonia for many years were called the most unhappy and unfortunate people of Europe. Though ruled by only one-fourth their number of Turks, they never combined against the Sultan, because they hated and despised each other more bitterly than their Mohammedan master. Bulgarians, Greeks, Serbians, and Vlachs make up the principal Christian population. Until last summer the Greeks plotted to have the country annexed to Greece; the Bulgarians wanted Bulgarian domination; the Ser-

vians hoped that through Macedonia Servia might reach the sea, while the Vlachs believed that Rumania should in some way control the country.

The rivalry between the racial parties—they cannot be defined as races—worked death and disaster among the Macedonian peasants. Bulgarian and Greek bands committed upon communities of hostile politics atrocities less only in extent than the atrocities of the Turks, and they all supported the Turk against each other.

Now all has changed. Hatreds and



A WATER SELLER : SALONIKI



SELLING POMEGRANATES : SALONIKI

Photos by P. J. Koeh



AN OLD TOWER OF SALONIKI

Photos by P. J. Kocis

A STREET SCENE IN ADRIANOPLE, EUROPEAN TURKEY



CHRISTIAN WOMEN OF SALONIKI

Photos by F. J. Koels

VILLAGE SCENE IN MACEDONIA



Photo from "The Balkan Trail," by Frederick Moore (Macmillan)

GREEK ORTHODOX PRIESTS OF MONASTIR, MACEDONIA

jealousies, fed by five hundred years of bitter feuds, have been forgotten over night. Greeks and Bulgarians, Armenians and Turks, Jews, Christians and Mohammedans are publicly embracing each other. It seems that the leaders of the different Macedonian parties suddenly realized during the last year that their chance of liberty was hopeless so long as they fought each other. They agreed to try the experiment of uniting with the "Young Turks" of the empire, who had for a long time been plotting against the Sultan. The basis of the union was that all parties, irrespective of race or creed, should share alike in the constitution.

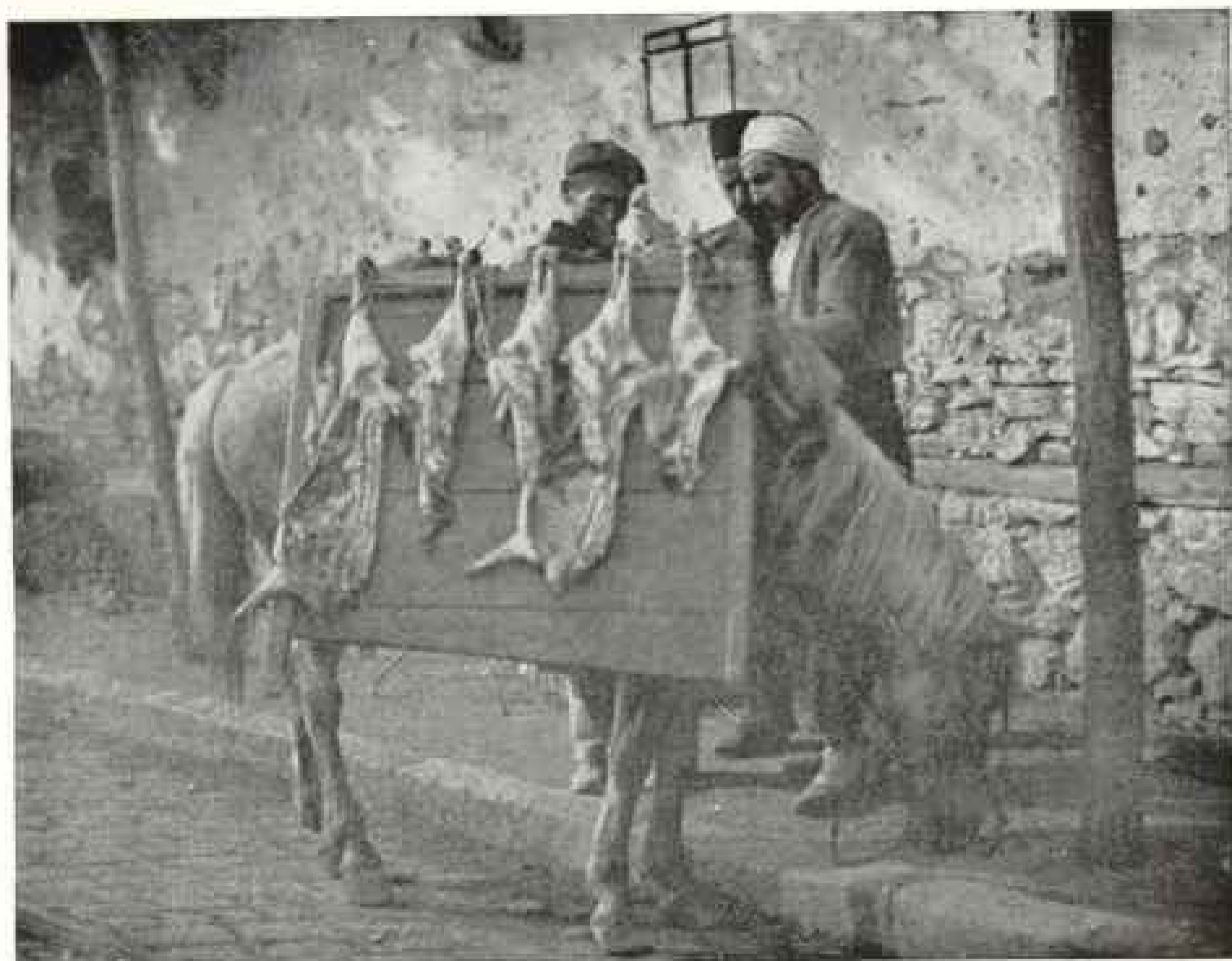
It was the Macedonians who took the lead in the recent revolution, and it is to them principally that the rest of the Ottoman Empire owes the opportunity of self-government now to be enjoyed.\*

\* An article on the Turkish Constitution will be published in the December number.

So great is their delight at having obtained a parliament and constitution that the populace have compelled Greek and Mohammedan priests to kiss each other on the town square.

The propagandas which have been conducted by the different parties for several generations have greatly benefited the people. The Bulgarian, Greek, Servian, and Rumanian schools—tolerated by the government because they divided the Macedonians—gave the peasants an education which they would not have acquired at the hands of the Turkish government. In the large centers the "gymnasiums" offer the inducements of higher education, and in some cases music and art, for which professors are brought from Budapest and Vienna. Children are often supplied with clothes, boarded, and lodged without charge.

Macedonia is noted for the picturesqueness and beauty of its scenery.



THE TURKISH BUTCHER: SALONIKI

"Over the backs of asses and sure-footed mountain ponies the butcher has an arrangement of carving boards, and cuts off a lamb chop or a roast at his customer's door. One has to rise early to see the heads still on the lambs, for they are great delicacies, and go first, and when roasted the unbounded joy of the native cracking the skull and picking out the tasty bits is nauseating in the extreme. The entrails of animals are also relished; they are eaten as the Italian eats his macaroni. The milkman, generally a Trigane, does not drive the cow through the streets, but brings the milk slung over an ass, in a skin, one end of which he milks at order."—FREDERICK MOORE.

Many of its mountains reach 10,000 feet in height, and are clad with magnificent forests.

In ancient times Macedonia was one of the best-known regions of the world, but during many centuries of misrule the records of its early civilization have disappeared. The archeologist is sorely needed to recall the past, and would probably find rich relics of ancient grandeur throughout the province. Saloniki, the seaport of Macedonia, is said to be richer than any city in Greece in ecclesiastical remains, and its ancient structures, for the most part, have borne well the ravages of time. There are many great edifices, built by the Romans

during their occupation and by the Greeks in their time, and a minaret at the corner of each denotes the purpose it serves today.

There is a mosque of Saint Sophia at Saloniki, built, like its great sister at Constantinople, during the reign of Justinian, and with a history also marked by the wars of the Catholic and Orthodox churches. But a fire of four years ago and an earthquake more recently have wrecked the place so that it is no longer used. The Rotunda, now the Eski Metropoli Mosque, was built by Trajan, after the model, though on a smaller scale, of the Pantheon at Rome, and was dedicated by him to the rites of the mys-



Photo from "Through Savage Europe,"  
by H. De Windt (Lippincott)

#### THE MACEDONIAN

terious Cabiri. It is circular, the dome unsupported by columns. The whole of the interior is richly decorated with mosaics which seem to have belonged to the original temple, as nothing about them divulges adjustment at Christian hands.

Between the Rotunda and the sea is the site of the Hippodrome, where Theo-

dosius, the last of the Emperors who were sole masters of the whole Roman Empire, caused to be committed one of the bloodiest of massacres for which Saloniki is famous. Although a zealous follower of Christianity, and commended by ancient writers as a prince blessed with every virtue, his moderation and clemency failed signally on this occasion. In order to chastise the people for a movement in favor of a charioteer very popular among them, and who had been arrested at his order, the inhabitants were assembled at the Hippodrome under the pretext of witnessing the races, and then barbarously massacred, without distinction of age or sex, to the number of seven thousand.

ALBANIA, THOUGH ALMOST IN SIGHT OF ITALY, IS THE LEAST KNOWN REGION OF EUROPE\*

Albania is the most romantic country in Europe, probably in all the world. It is a lawless land where might makes right, and parts of it are as forbidding to the foreigner as darkest Africa. In some sections of the country the homes of men are strongholds built of stone, with no windows on the ground floors, and those above mere loopholes. At the corners of a village or estate are kulers, towers of defense, from which the enemy can be seen far down the road.

The first law of the land is the law of the gun, as it was in the wild west. But the country is more thickly populated than was the American border in the old days, and men have banded together in clans for offensive and defensive purposes.

There is no education in Albania—the Turks have kept the country illiterate—and promises have come to be bonds. It is because the Albanians keep their word that the Sultan at Constantinople has chosen them as his body-guard. But the Albanian has no regard for the man he has not sworn to, and, though the petty thief is despised, it is considered brave work to kill a man for his money.

Albanian customs are dangerous to break, and are handed down the genera-

\* Abstracted from "The Balkan Trail."





Photo from "The Balkan Trail," by Frederick Moore (Macmillan)

#### ALBANIAN RECRUITS FOR THE SULTAN'S BODYGUARD

The Albanians were the only Christian race conquered by the Turks to change their faith and become Mohammedans. It was from their number that the Sultan picked his bodyguard. When they refused to obey his commands he realized it was time to grant the constitution.

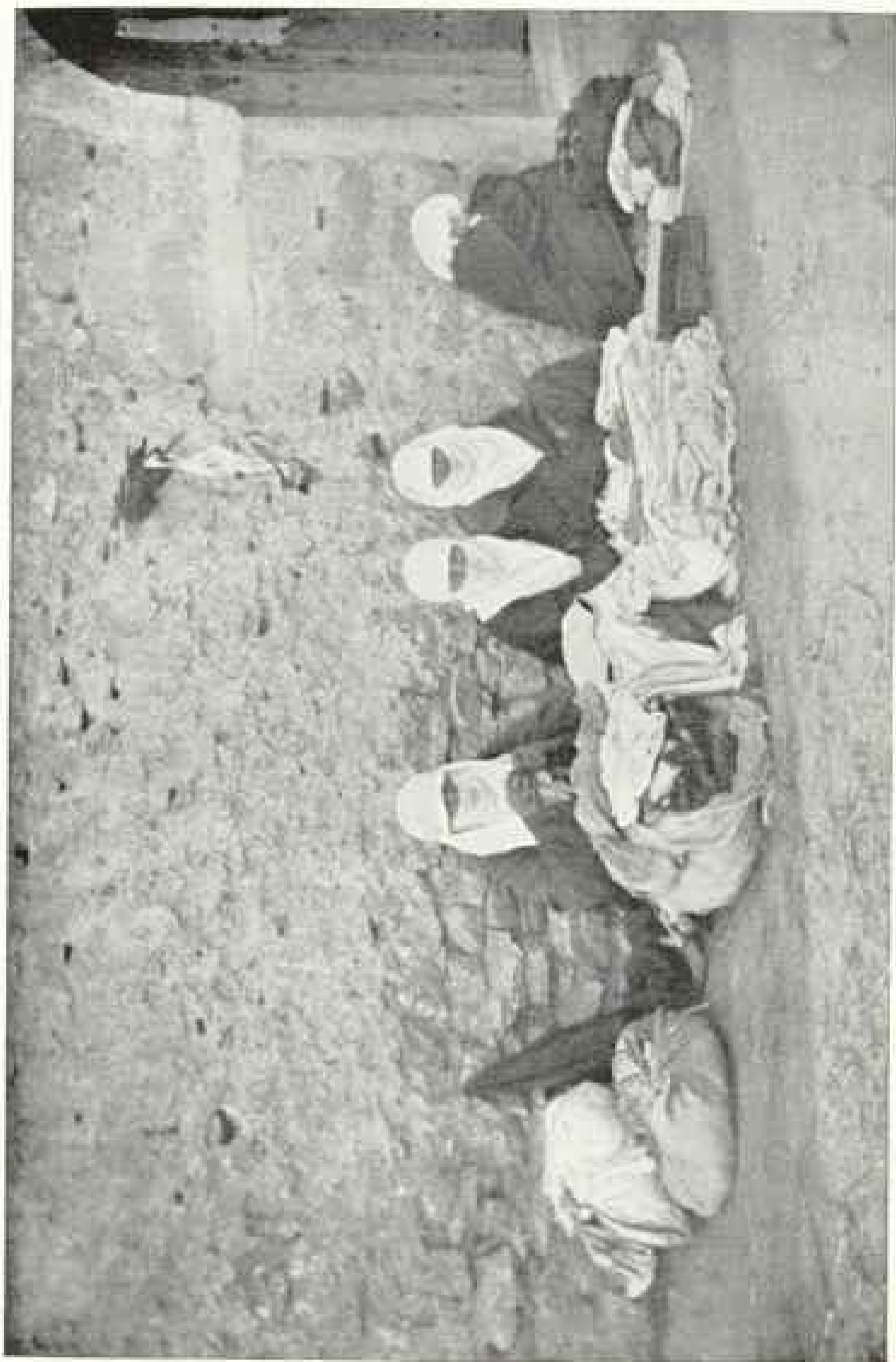


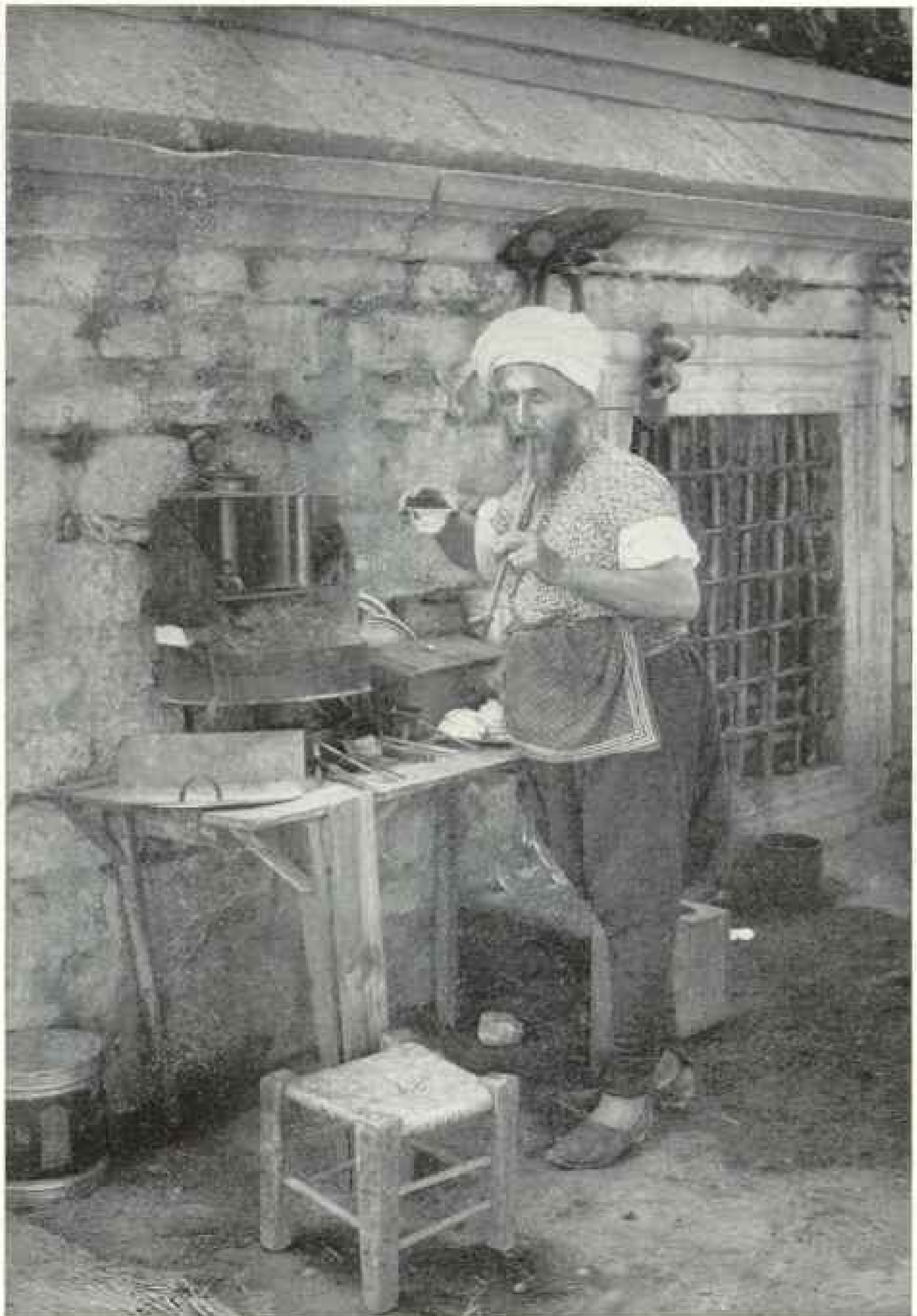
Photo from "The Balkan Trade," by Frederick Moore (Mammilian)

#### MOHAMMEDAN WOMEN OF EUROPEAN TURKEY

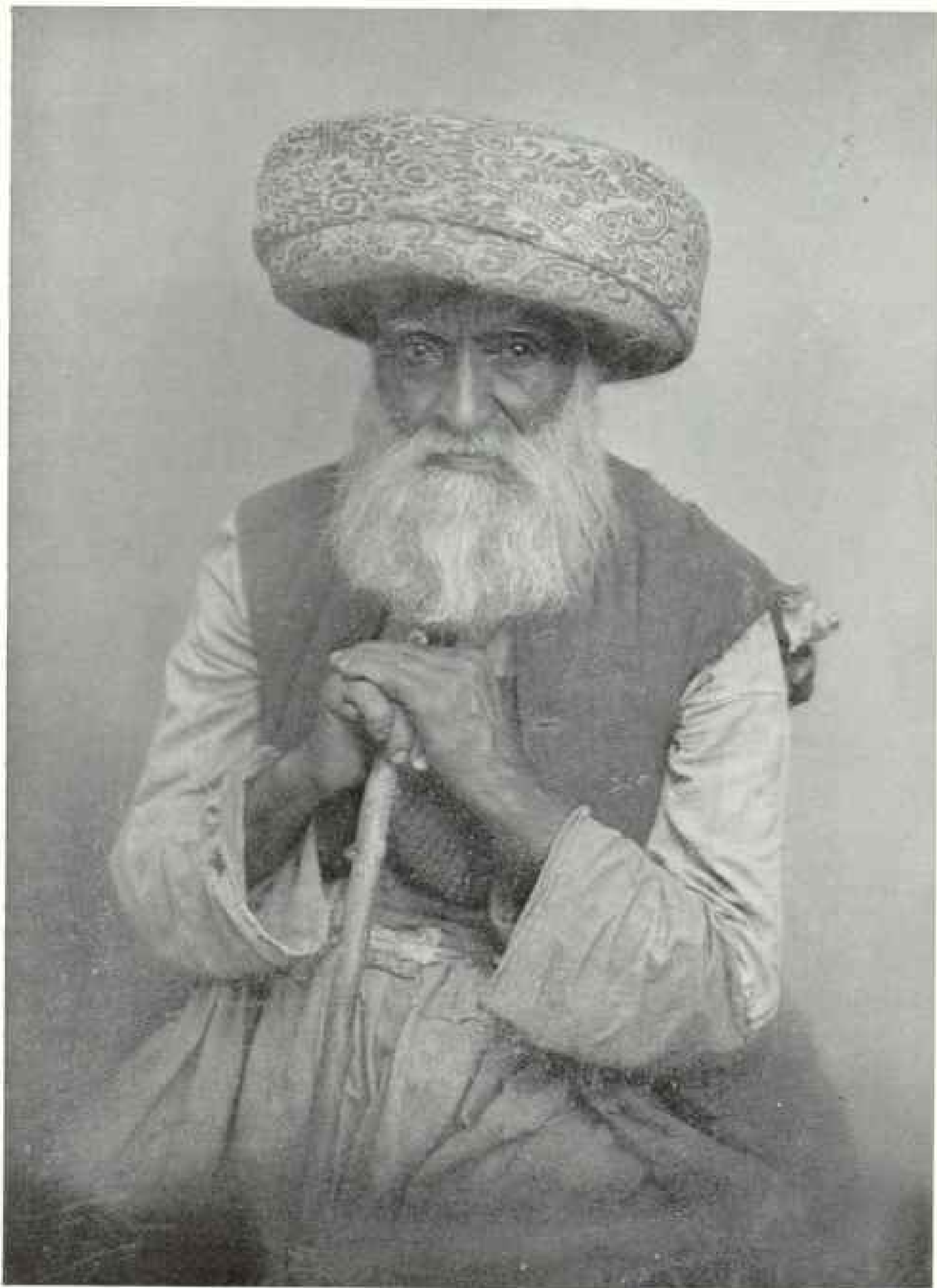
The women of Macedonia, the Mohammedan as well as the Christian, took a leading part in the recent movement which resulted in the granting of a constitution by the Sultan. Many of the Mohammedan women are now refusing to wear the veil which has been so characteristic of their race for many centuries, and it is stated have been cheered by the populace, Turks as well as Christians, when they appeared in public dressed as their Christian sisters.



MAP OF SOUTHEASTERN EUROPE, SHOWING THE BALKAN STATES AND EUROPEAN TURKEY



MAKING TURKISH COFFEE — Photo from Henry C. Corson



A TYPICAL TURK

Photo from Henry C. Corson



ASIATIC SOLDIERS OF THE TURKISH ARMY  
IN MACEDONIA

tions unwritten as sacredly as are feuds. Some strange customs exist. To compliment an unmarried woman, for instance, is provocation for death. A bloody enemy is under amnesty while in the company of a woman. A woman may shoot a fiancé who breaks his betrothal or call upon the young man's father to kill him. If a man commits murder, and, flying for his life, enters the house of another, friend or foe, he is safe. This is the case, even if he takes refuge in the house of a brother of the man he has slain. He may not remain there forever; but for three days he can live on the best that the house provides. When that time is up, he is shown on his way. Twenty-four hours is given him to make his escape; after that the *bessa* is over and the blood feud begins.

In their national dress the Albanians of the north are always distinguishable. The men wear baggy trousers, usually white, tight fitting at the ankle. Down each side of them and over the back is a broad band of rich black silk cording. Very often a design in rich red tapers down each leg to the knee. A broad sash (over a leather belt), between

trousers and shirt, serves as holster for pistol and yataghan. A short, richly worked waistcoat reaches down to the top of the sash, but misses meeting across the chest by six inches. The costumes differ considerably in various parts of Albania. In Southern Albania the men wear pleated ballet skirts like the Northern Greeks.

For headgear the Albanian generally wears a tiny, tight-fitting white skull-cap which looks in the sun like a bald spot. Some wear caps of Ottoman red, from which a rich, full, flowing silk tassel of black or dark blue falls to the shoulders.

The cut of the hair is peculiar. The men of one section will have their heads closely shaven, except in one circular space about an inch across. The single tuft curls down underneath the cap like a Red Indian's scalp-lock. Others will shave the top of the head where the cap rests. There is reason for this; as the Mohammedan seldom removes his fez, the heat over the head is thereby equalized. There are a dozen other cuts, none of which beautify the Albanian; nevertheless, he is always of striking appearance.

The Albanians are of pure European origin. They are tall, broad-shouldered men, with fine faces. They are quite unlike any of the other people of Macedonia, even speaking a totally different language. While nothing definite is known of their origin, it is more than probable that they are the descendants of the ancient Illyrians, who once occupied all the western side of the Balkan Peninsula, and were gradually driven to the mountains of Albania by the successive invasions of Greeks, Romans, Slavs, and Turks.

Albania has never been wholly subdued or civilized. It was partially conquered by Servian princes in the Middle Ages, and under them attained a certain civilization; but at the Turkish conquest it relapsed into a wild state.

The majority of the Albanians have become Mohammedans, chiefly because the religion carried with it the right to bear arms and other privileges.

# THE OIL TREASURE OF MEXICO

BY RUSSELL HASTINGS MILLWARD

AMERICAN VICE-CONSUL AT TAMPICO, MEXICO

ON the Fourth of July last news was flashed to every civilized country that a second great oil gusher had been struck and was on fire at San Geronimo, Mexico; but little interest was taken in the item, beyond passing notice, until several weeks later, when experts reported that probably the largest oil well in existence had been discovered. Then it was that maps were searched in vain for San Geronimo, destined to become the center of the world's newest and greatest oil fields, the discovery of which has awakened the oil monopoly to a realization of the fact that the most dangerous opposition it has yet encountered must be met and seriously considered.

These fields are situated in the state of Vera Cruz and are most conveniently reached by boat from Tampico, a distance of 67 miles. Although no complete geological report has been made of this immediate vicinity, the district may be correctly classified in what is known as the Gulf Coastal Plain,\* which extends from the Mississippi River westward through Louisiana and Texas, and along the coast of the Gulf of Mexico, through the Mexican states of Tamaulipas and Vera Cruz, and inward for a distance of from 50 to 75 miles. Bitumen or asphaltum had been found along the Gulf coast and floating about Lake Tamiahua for a number of years, and the natives, in a primitive manner, gathered the product and conveyed it by dug-out canoes to Tampico, where an excellent market was maintained. Encouraged by the seemingly inexhaustible supply, prospectors began to investigate the surrounding districts, and it is a matter of but a few years since the first important development work was started in the two adjoining states, and little more than a year since ground was

broken at San Geronimo, with the result that the two gigantic wells, which are called Dos Bocas, have been found.

The first was struck at a depth of 2,000 feet and easily capped; but it was nearly a month later, while operating the drill at a depth of 1,800 feet, that the oil was unexpectedly encountered in the second instance in such quantities that it could not be controlled. Realizing the danger, the men ran to the boiler near by and endeavored to put out the fire before the inundation of oil reached the flame, but without avail, for the oil spread over the ground so quickly that it was immediately ignited and extended to the well, where the drilling machinery was destroyed. Within 24 hours several gangs of men were put to work in an effort to extinguish the mammoth pillar of flame which was to continue for nearly two months, fortunately without loss of life. Every effort was made to cap the well without success, and letters were received by the operating company, S. Pearson & Son, Limited, of London, from all quarters of the globe, offering advice and assistance of every conceivable description.

One man offered to extinguish the flame, bearing all the expenses in the operation, for a payment of ten days' flow of the well when under control. It is estimated that from 60,000 to 75,000 barrels of oil were consumed in flame each day from July 4 until August 30, when the fire was finally conquered, which loss, together with cost of development work and necessary expenditures, aggregated more than \$3,000,000. During its fury the flame mounted to heights ranging from 800 to 1,400 feet, measuring 40 to 75 feet in width and presenting the most spectacular fire ever witnessed in the oil industry.

Newspapers could be clearly read at a distance of 17 miles, headlines at 33 miles, and ships' officers reported that

\* See U. S. Geological Survey Bulletin No. 282, by N. M. Fenneman.



Photo from Russell Hastings Millward

MAMMOTH OIL GUSHER ON FIRE AT SAN GERONIMO, MEXICO.

A sheet of flame measuring 1,100 feet high and 55 feet in diameter



the light was visible for more than 100 miles at sea. Many of the superstitious natives, believing that the world had come to an end, fled in mortal terror from the vicinity, and the Mexican authorities were alarmed to such an extent that several companies of troops were sent to assist in the work of extinguishing the fire. By the enormous pressure quantities of bitumen were thrown high into the air, and it was evident that the flow contained a large proportion of dry gas. The casings of 4 and 8-inch pipe were hurled from the well into the flame and rapidly converted into a twisted, molten mass by the terrific heat.

Every method of fighting fire known to the profession was adopted, but it was not until six centrifugal pumps were installed and sufficient mud and gravel forced around the gusher to concentrate a pack, restricting the fire and confining the oil to a limited area, that it was conquered.

After the fire was put out the flow

continued as rapidly as before. Embankments were then heaped up to confine the oil until it could be disposed of. A lake of oil, nearly 1,000 feet in width, has already been formed.

Upon a recent examination it was found that the flow of oil had somewhat decreased, and that the well was making considerable salt water highly charged with sulphur. It is a general rule that such conditions indicate exhaustion, but it was determined later that the unfavorable elements were not present in sufficient quantities to cause any alarm, and that the flow is more uniform and without the intermittent pulsations. The conditions are such, however, that it will be impossible to arrange adequate tank storage of any kind for some time, and the oil continues to flow, spreading itself over a vast area. The company is now attempting to throw up encircling mounds or dikes of earth, forming an enormous reservoir, and in this novel manner hopes to recover a great part of the production.

## NATIONAL GEOGRAPHIC SOCIETY

### ANNUAL BANQUET

The attention of all members of the National Geographic Society is directed to the Annual Banquet of the Society, which will be held on Tuesday evening, December 15, at the New Willard, Washington, D. C. The Board of Managers have decided to make it a Navy evening. The Secretary of the Navy, Hon. Victor H. Metcalf, Admiral Robley D. Evans, who commanded the American fleet on the recent cruise from the Atlantic to the Pacific, and other naval officers and their wives will be among the guests of honor. Members of the Society journeyed from New York, Philadelphia, and other cities to attend the Society's banquet in December, 1907, and it is hoped that this year an even larger number of members living outside of Washington may be able to be present. There will be several brief toasts. As the number of persons who can be accommodated at the banquet is limited, members planning to come from a distance are urged to send in their reservations for plates at once. The price per plate is \$5.00.

### MEMBERS VISITING WASHINGTON

Members of the National Geographic Society visiting Washington are cordially invited to call at the Society's home, Hubbard Memo-

rial Hall, Sixteenth and M streets. The Society maintains a considerable geographic library, and receives all the popular and scientific periodicals. The library is open from 9 a. m. to 4.30 p. m., except on Saturdays, when it closes at 12.

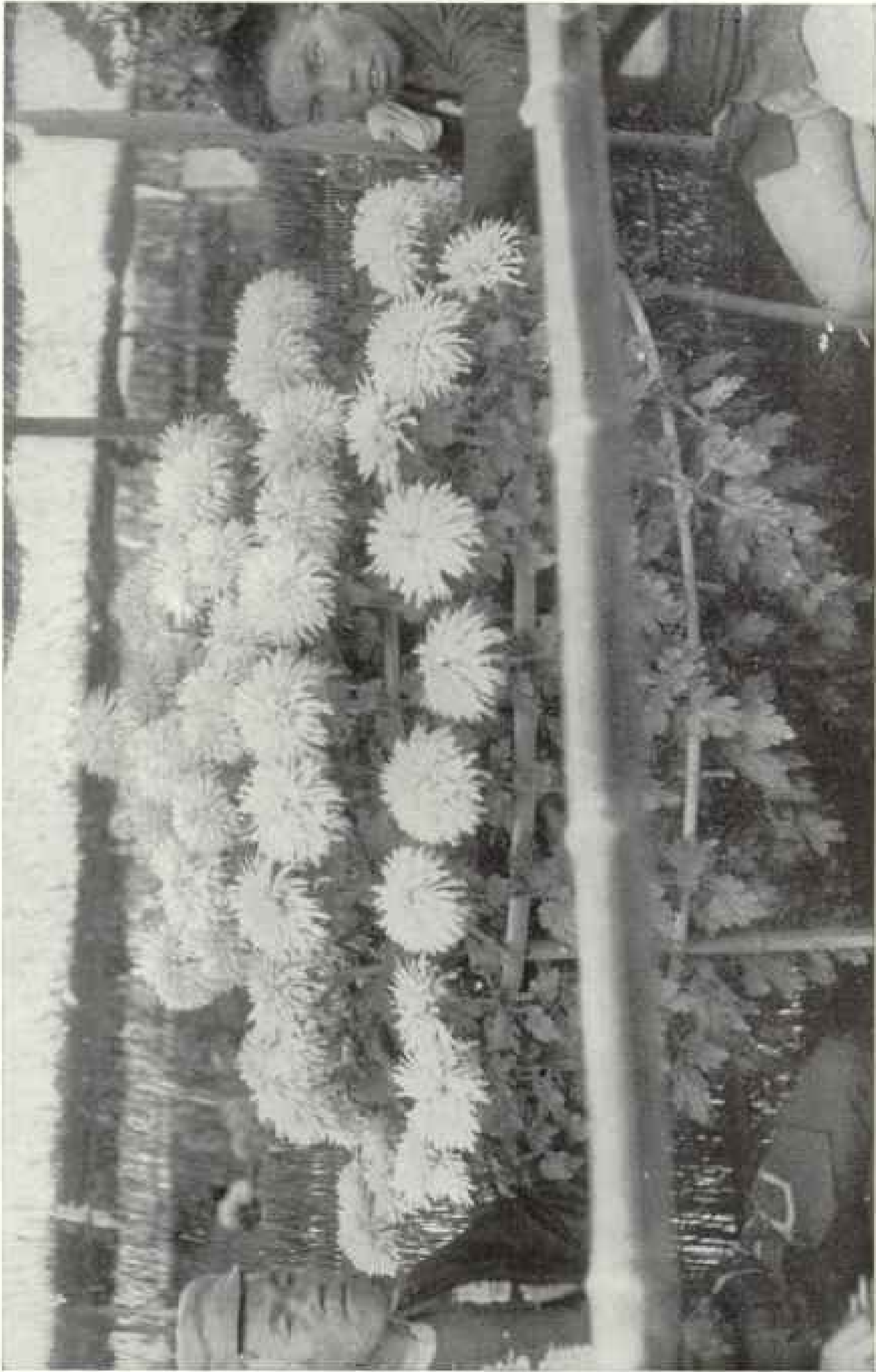
Members of the Society residing at a distance from Washington and who visit the Capital for a few days during the lecture season will be given complimentary cards to any address of the Society during their stay in the city.

### PROGRAM OF MEETINGS

Practically all the addresses to the National Geographic Society during the season of 1908-1909 will be held in the auditorium of the Masonic Temple, Thirteenth street and New York avenue. Commencing with Friday, November 13, there will be an address in the auditorium every Friday evening at 8.15 until April 2, inclusive, excepting December 25, January 1, and March 5. The addresses will be published as far as possible in the Magazine of the Society.

One season ticket, admitting two persons to all the lectures, may be bought by each member for \$3.00.

The completed program of meetings to be held in the Masonic Temple is as follows:



A SINGLE CHRYSANTHEMUM PLANT WITH 96 BLOSSOMS; JAPAN. Photo from Rev. D. S. Spencer

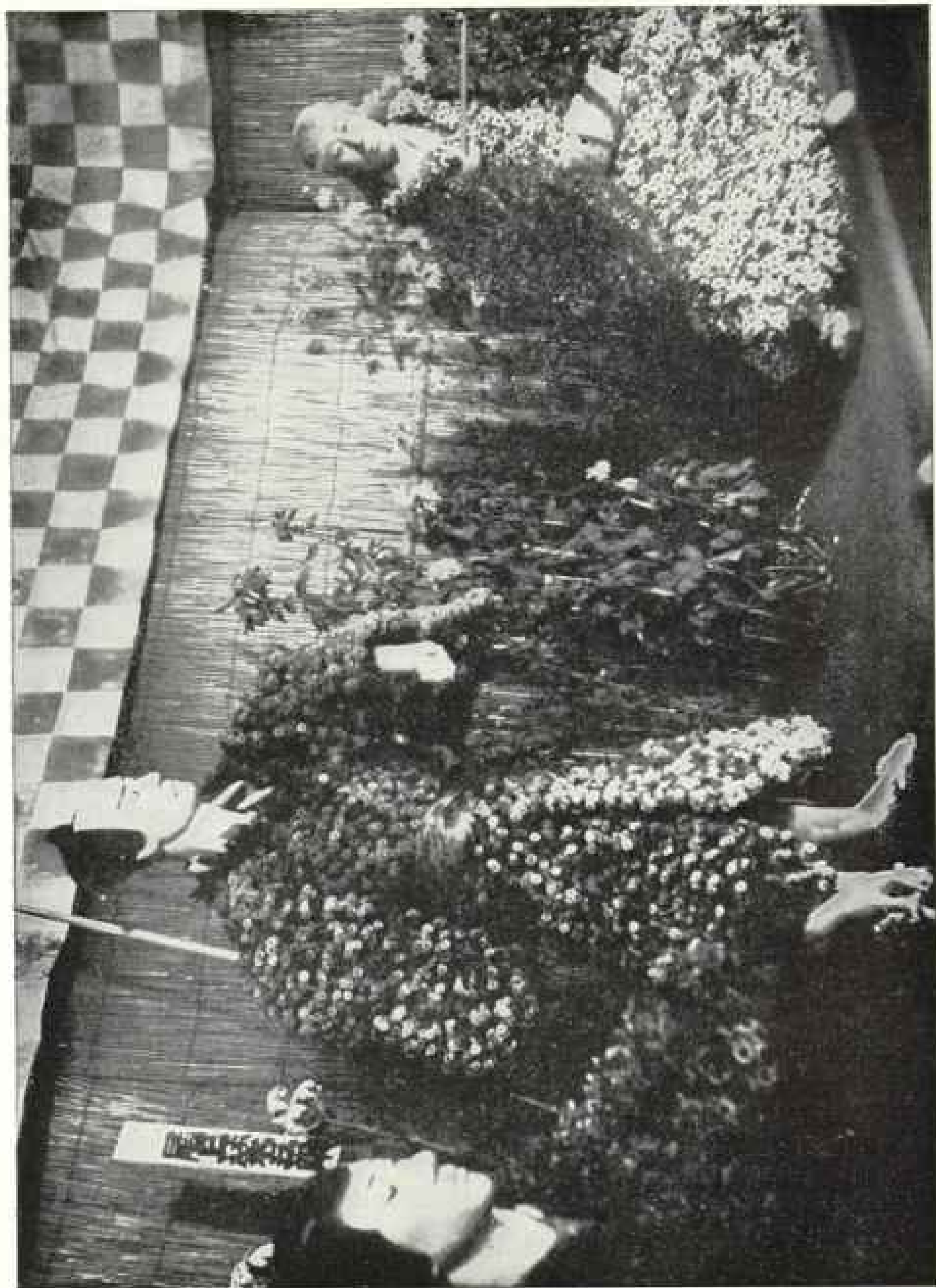


Photo from Rev. D. S. Spencer.

FIGURES OF MEN WITH CHRYSANTHEMUM PLANTS TRAINED TO GROW AS CLOTHING FOR THEIR PERSONS: ALL HISTORICAL CHARACTERS; JAPAN

*November 7*—"The Part of Africa where President Roosevelt will Probably Hunt," by Sir Henry H. Johnston, pioneer African Explorer. Illustrated.

*November 13*—"Fashion Plates from Afar," by Hon. O. P. Austin, Chief of the U. S. Bureau of Statistics. An account of the queer methods of dress and adornment employed by savage and civilized man from the Garden of Eden to the present day. Illustrated with lantern slides and moving pictures.

*November 20*—"Bulgaria and Her Neighbors," by Dr Hermann Schoenfeld, Professor of Germanics and Continental History, George Washington University, and Consul General of the Ottoman Empire in Washington.

*November 27*—"The Savage South Seas," by Mr Oliver Bainbridge, of England. Mr Bainbridge will describe the natives and ocean life in Fiji, the Bismarck Archipelago, Solomon Islands, Papua and Maoriland, a little known and romantic region. Illustrated.

*December 4*—"Through the Canyons of the Euphrates on a Raft of Skins," by Mr Ellsworth Huntington, of Yale University, author of "The Pulse of Asia," etc. The narrative of some interesting experiences and sights in the "Land of the Arabian Nights." Illustrated.

*December 11*—"The Redemption of Ireland," by Mr William E. Curtis. No longer does the Irishman in Ireland live on potatoes and peat. Illustrated.

*December 18*—"The Turkish Revolution," by Dr Howard S. Bliss, President Syrian Protestant College, Beirut. The democratic revolution in Turkey, which has thus far gained its ends without bloodshed, is one of the most remarkable and almost incredible movements of history. Dr Bliss since 1902 has been President of the great American University in Syria, of which his father, Dr Daniel Bliss, had been President for 36 years. Illustrated.

*January 8*—"A Digger's Work in Palestine," by Dr Frederick J. Bliss, author of "A Mound of Many Cities," "Excavations in Palestine," etc. Dr Bliss has been conducting important excavations in Palestine for 20 years. In one mound he found eight cities buried one under another. Illustrated.

*January 15*—"The Non-Christian Tribes of the Philippine Islands," by Dr Frederick Starr, of the University of Chicago. Who they are, how they live, and what the American people and government are doing for them. Illustrated.

*January 22*—"The Panama Canal and the Spanish Main," by Mrs Harriet Chalmers Adams, author of "Wonderful Sights in Andean Highlands," "Land of the Incas," etc., in the NATIONAL GEOGRAPHIC MAGAZINE. How 40,000 men are making the dirt fly at Panama; how they are cared for; their mess halls and amusements. With an excursion to the Spanish Main. Illustrated with lantern slides and moving pictures.

*January 29*—"Abraham Lincoln—Boy and Man," by Mr W. W. Ellsworth, of the Century Co. The year 1909 is the centenary of Lincoln's birth.

*February 5*—Major General A. W. Greely, U. S. Army, will address the National Geographic Society. The subject of this lecture will be announced later. Illustrated.

*February 12*—"The Bird Islands of Our Atlantic Coast," by Mr Frank M. Chapman, of the American Museum of Natural History. Illustrated with lantern slides and moving pictures of the pelicans and fish hawks.

*February 19*—"Java—The Garden of the East," by Mr Henry G. Bryant. Mr Bryant, like the majority of travelers, describes this island as "the most beautiful and fascinating region in the world." Illustrated with lantern slides and moving pictures.

*February 26*—"Aerial Locomotion," by Mr Wilbur Wright or Mr Orville Wright.

*March 12*—"The Hunting Fields of Central Africa," by Mr Gardner F. Williams, author of "The Diamond Mines of South Africa," and for 20 years general manager of the De Beers diamond mines at Kimberley. Illustrated with lantern slides and moving pictures.

*March 19*—"Ruwenzori, the Snow Crowned Mountain of the Equator," by Prof. Edwin A. Fay, of the Tufts College, President American Alpine Club. This is the African peak which the Duke of the Abruzzi ascended two years ago. The magnificent photographs of the natives and scenery along the route taken by the famous Italian photographer, Sella, who accompanied the Italian prince, will be shown on lantern slides.

*March 25*—"Brittany—The Land of the Sardine," by Dr Hugh M. Smith, Deputy Commissioner of the U. S. Bureau of Fisheries. The industries and customs of this picturesque section of France will be interestingly described by one who knows them well. Illustrated.

*April 2*—"Homes for Millions—Reclaiming the Desert," by Mr C. J. Blanchard, of the U. S. Reclamation Service. Illustrated with lantern slides and moving pictures.

#### MEETINGS AT HUBBARD MEMORIAL HALL

In addition to the regular meetings held every Friday evening in the Masonic Temple, there will be occasional meetings of a more technical character in Hubbard Memorial Hall. Notices of these meetings will be published in the Washington newspapers. Postal announcements will also be sent to members asking for them. During December or January addresses are expected from Dr Albrecht Penck, Professor of Geography in the University of Berlin, Germany, and Kaiser Wilhelm Professor in Columbia University for 1909, and Prof. Raymond F. Beazley, author of "The Dawn of Modern Geography," of Oxford University.

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## The Eruption of Pelee

*A Summary and Discussion of the  
Phenomena and Their Sequels*

BY

ANGELO HEILPRIN

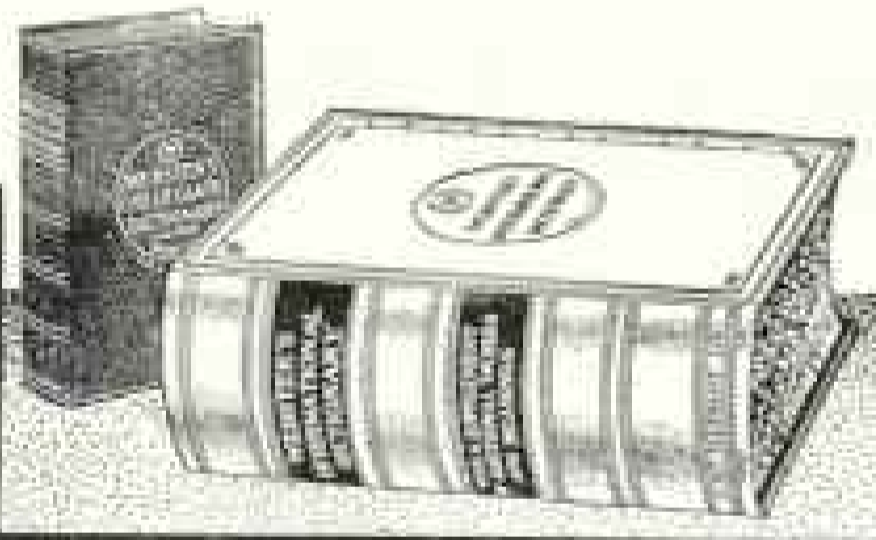
This volume, which was in type at the time of the author's death, in 1907, embodies the main scientific data in his "Mount Pelee and the Tragedy of Martinique" and the "Tower of Pelee," and presents the results of the observations made in his fourth and last visit to Martinique, in February, 1906, when it was found practicable to descend into the crater of Pelee and examine the fragments of the giant obelisk that had been reared up to a height of a thousand feet. The sequels of the great eruption—the remarkable atmospheric phenomena visible in all parts of the globe—are described in the light of the most recent scientific observations.

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☞ The September number contains the following articles:

The Course of the Vegetative Seasons in Southern Arizona. By Dr. D. T. MacDougal.

Methods of Reproduction in Guayule (a Mexican Rubber Plant) and Mariola. By Professor F. E. Lloyd.

The Western Edge of the Colorado Desert. By Prof. V. M. Spalding.

Bower's Origin of a Land Flora. By Dr. W. A. Cannon.

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BARANKIS, EAST CENTRAL AFRICA. PHOTO FROM E. L. SCHRIET.

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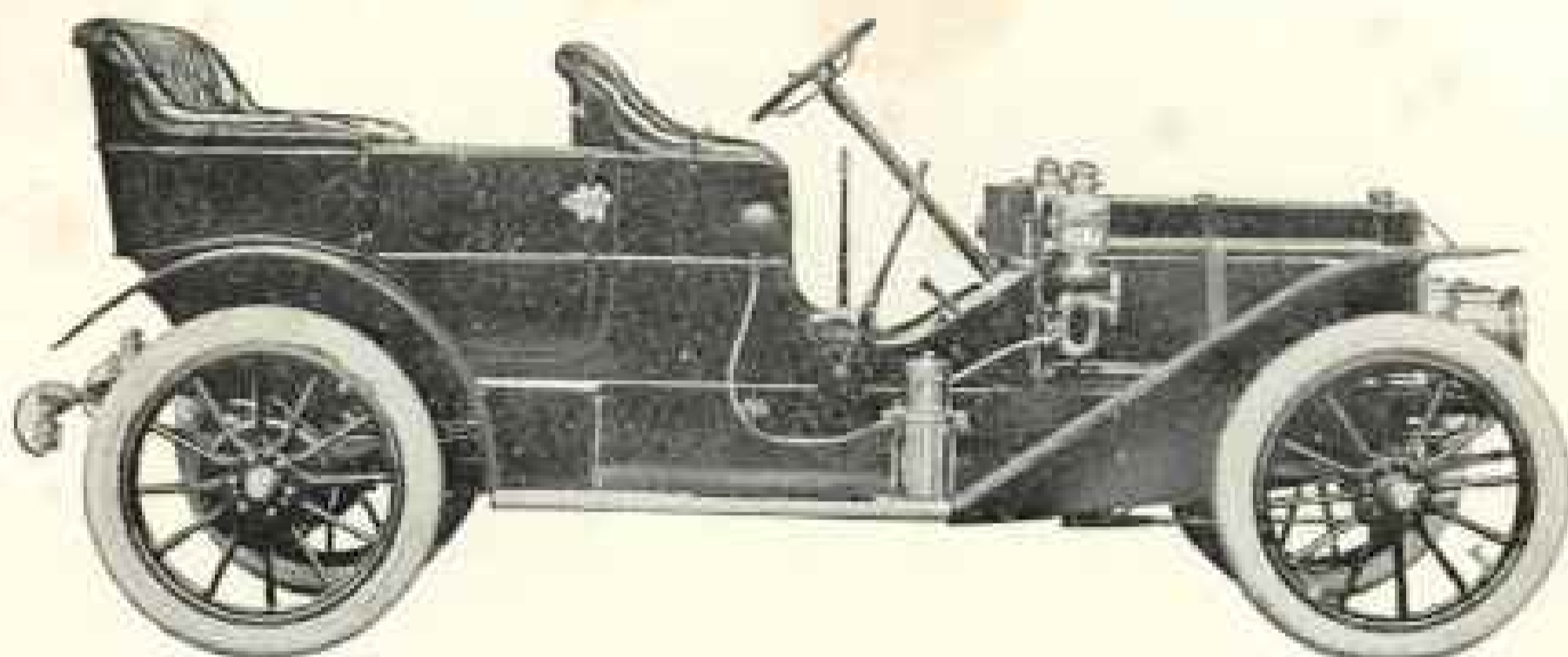
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# Rambler - 1909



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# How a Waltham Watch Set England's Time

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Yours very sincerely,

THOMAS WHEATE.

## The Reply From the Astronomer Royal

ROYAL OBSERVATORY,  
GREENWICH, LONDON, S. E.,  
1894, March 10.

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Yours truly,

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