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ERRATA.

Page 143, Fig. 1, for *Globiosoma* read *Gobiosoma*.
" 147, line 19, for *brevirostris* read *rubrirostris*.
" 293, Fig. 27, for *Diadodexis* read *Diacodexis*.
" 354, line 3, for *Neotoma mexicanofallax* read *Neotoma mexicana fallax*.
" 354, " 5, for *Ocinerea rolestes* read *cinerea orolestes*.
" 507, " 19 from bottom, for *Telconemia belfragei* read *Teleonemia belfragei*.
" 532, lines 17, 19, 22 and 25, for *Dræculacephala* read *Dræculocephala*.
" 588, line 16, for 8500 ft. read 3500 ft.
" 593, lines 18 and 32, for Rio Caura read Rio Cesar.

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VOLUME XXXIII, 1914.

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Article I.— THE ANTS OF HAITI.[1]

BY W. M. WHEELER AND W. M. MANN.

THE following paper is based on a large series of Formicidæ taken in the republic of Haiti by the junior author during the winter of 1912–'13, while he was collecting zoölogical specimens for the Museum of Comparative Zoölogy and Mr. B. Preston Clark of Boston. Although San Domingo was not visited, it seemed desirable to enumerate also the few species known from that country as well as all previous records from Haiti proper. As the naturalist is apt to encounter peculiar obstacles in carrying on work in the island, the junior author wishes to express his appreciation of the kindness of a number of gentlemen who assisted him in obtaining transportation, letters of introduction and living accommodations. M. Tancrède Auguste, the late president of Haiti, gave him general permission to travel throughout the republic, and Archbishop Conan kindly furnished him with letters to the priests of his diocese, the only gentlemen with whom it was possible at times to secure lodgings. Father Plomby of Furcy, Father Braun of Grande Rivière and the Abbé Meliande of Milot befriended and lodged him, not only once but on several occasions. Mr. Willoughby, chief engineer of the American railroad now being built through Haiti, looked after his welfare in the construction camps, as did also Messrs. Wilkinson and Shea in the northern part of the republic. Dr. John B. Terres welcomed him in his home at Diquini, a short distance to the west of Port au Prince. This was an ideal spot for collecting and the genial doctor himself took a personal interest in the work and collected many desirable specimens. The junior

[1] Contributions from the Entomological Laboratory of the Bussey Institution, Harvard University. No. 72.

author also passed several days on the enormous sugar plantation at Momance, as the guest of its owner, Gen. J. F. Jeffrard. In the north, headquarters were made at Charmette, near Cape Haitien, in the home of an American, Mr. W. M. Kirchner, who is engaged in growing cotton. Dr. Henry Furniss, United States minister to Haiti, gave much useful advice and assistance, and Messrs. Moore and Furbush of the American legation, Messrs. Baptiste and Livingston of the Consular service, Mr. J. H. Allen of the National Bank, Mr. Johnson of Jacmel, Capt. Gatchal of Port au Prince, and, in fact, all the members of the American colony greatly facilitated traveling and residence and were of material assistance in many other ways.

The following is a list of some of the localities cited for the various species enumerated in the following paper, with notes on their peculiarities: —

Diquini. The residence of Dr. John B. Terres, United States Consul General, near Bizaton, west of Port au Prince and among low hills. Cultivated ground and open woods along a stream made this a rich field for the collector.

Momance. The sugar-cane plantation of Gen. Jeffrard, on the railroad between Port au Prince and Laogane; flat, cultivated country, a little above sea-level.

Manneville. On the west shore of Lake Assuei; hot and dry, with desert vegetation, such as cacti and thorny bushes; with a few small, sporadic, cultivated tracts. This locality is scarcely above sea level.

Petionville (Le Coup). The summer resort of Port au Prince; about three miles inland and at an altitude of about 500 m. Most of the collecting here was in shady ravines and on the hill slopes back of the town.

Furcy. A small settlement in the high mountains south of Port au Prince, at an altitude of 1730 m.[1] Collecting here was mostly along the mountain ridge or in the cañons on each side. Owing to the altitude the climate is delightful, though the nights are rather too cool for comfort. There is a curious intermingling of tropical and temperate vegetation, pine trees growing with coffee-plants and bananas among patches of Indian corn. Numerous insects seemed to be peculiar to this region, notably *Macromischa sallei* subsp. *haytiana* which was taken only here and as the commonest insect. It is not improbable that each of the mountain ranges of Haiti has its own faunal peculiarities.

Mountains north of Jacmel. A region on the eastern fork of the river

[1] The altitude of Furcy is stated variously by different authors. Léger (Haiti, Her History and Her Detractors. Neale Pub. Co., New York and Washington, 1907, p. 275) gives it as 1,540 meters. A map in the presbytère of the chapel at Furcy had it marked 1,730 m.

which flows southward and enters the sea at Jacmel. The exact location of the collection cannot be given, but, roughly speaking, it was along the river about a ten hours' horse-back journey from Jacmel.

Cape Haitien. Collections mostly from Charmette, the plantation of Mr. Kirchner, some three miles southeast of the town.

Grande Rivière. A few miles beyond the town on the right of way of the railroad now under construction at the camps of Messrs. Wilkinson and Shea.

Milot. On the trail between Milot and the citadel of Christophe.

Up to the present time our knowledge of the ants of Haiti has remained very meager. Latreille, Guérin, Frederick Smith and Roger long ago described a few species from San Domingo, and more recently Emery and Forel have recorded several others from a few specimens taken by various collectors in Haiti. Altogether, however, not more than two dozen forms have been recorded from the whole island. In the present paper 90 forms are recognized, 37 of which are described as new to science. The whole series may be divided into three groups: those known only from the island of Haiti, those common to other West Indian Islands and the adjacent tropical mainland (Central and South America) and those which are tropicopolitan and therefore, in all probability, introduced by commerce. The following 47 or 52.2% of all the forms are known only from the republic of Haiti and San Domingo:

Platythyrea strenua
Emeryella schmitti
Spaniopone haytiana
Trachymesopus rufescens
Lobopelta antillana
Stenomyrmex haytianus
Odontomachus paucidens
Pseudomyrma haytiana
" affinis
" torquata
" subatra
Solenopsis inermiceps
Pheidole terresi
" illota
" haytiana
" creola
Aphænogaster relicta
" epinotalis
Ephebomyrmex schmitti
" sublævigatus
" saucius
Macromischa sallei
" haytiana
" flavidula
Cryptocerus hæmorrhoidalis
" marginatus
Trachymyrmex haytianus
Iridomyrmex keiteli
" flavescens
" subfasciatus
Tapinoma opacum
Rhizomyrma parvidens
" dubitata
Camponotus plombyi
" haytianus
" fraterculus
" soulouquei
" illitus
" imbecillus
" larvigerus
" ulysses
" sublautus
" furnissi
" occultus
" christophei
" augustei
" toussainti

The forms common to other West Indian Islands or to the tropical mainland are 34 in number and constitute 37.7 % of the whole known ant fauna:

Platythyrea punctata
Trachymesopus stigma
Ponera opaciceps
" ergatandria
Leptogenys puncticeps
Anochetus mayri
Odontomachus haematoda
" insularis
Pseudomyrma delicatula
" cubaënsis
Cardiocondyla venustula
Solenopsis geminata
" globularia
" borinquenensis
" pollux
Crematogaster steinheili
Pheidole jelskii
Pheidole antillensis
" vincentensis
" jamaicensis
Wasmannia auropunctata
Strumigenys alberti
" rogeri
" unispinulosa
Trachymyrmex jamaicensis
Mycocepurus smithi
Cyphomyrmex minutus
Dorymyrmex niger
Brachymyrmex heeri
Nylanderia itinerans
" steinheili
" fulva
Camponotus ustus
" sexguttatus

Only 9 forms or 10 % belong to the tropicopolitan group:

Monomorium salomonis
Monomorium floricola
" ebeninum
Pheidole megacephala
Tetramorium guineense
Tetrogmus simillimus
Tapinoma melanocephalum
Nylanderia longicornis
" hagemanni

For the sake of comparing the three groups of forms recorded above with the corresponding groups in the other Great Antilles, Cuba, Jamaica and Porto Rico (including the Virgin Islands), the following table has been compiled from former papers by the senior author:

Greater Antilles	Forms peculiar to each Island.	Forms common to other Antilles or Mainland.	Tropicopolitan (" tramp ") species	Total number of forms
Cuba	34(43.1%)	37(46.8%)	8(10.1%)	79
Haiti	47(52.2%)	34(37.7%)	9(10.%)	90
Jamaica	17(26.9%)	37(58.7%)	9(14.3%)	63
Porto Rico	14(22.2%)	39(61.9%)	10(15.8%)	63

It will be seen from this table that the number of species, subspecies and varieties of ants is less in the two smaller than in the two larger Great Antilles, though greater in Haiti than Cuba, that each of the islands has 8–10

tropicopolitan "tramp" species and that the number of widely distributed neotropical forms is nearly the same in all the islands, varying only from 34–39.[1]

The greatest interest attaches to the forms peculiar to each island. These, which vary considerably, from only 15 and 17 on Porto Rico and Jamaica to 34 and 47 on Cuba and Haiti, comprise species, subspecies and varieties, and most of the subspecies and varieties represent merely local races of species which occur elsewhere in tropical America. An enumeration of the species peculiar to each island gives a different proportion, Cuba having 21, Haiti 19, Jamaica 9 and Porto Rico 7 species, which are known to occur in no other part of the world. These may, therefore, be regarded as truly indigenous forms or relicts of some ancient fauna, whereas the subspecies and varieties peculiar to each island are presumably, in great part at least, of more recent development. The latter may therefore be called "recently indigenous," the former "primitively indigenous" forms, whereas those which are common to two or more of the Antilles or to Central or South America, may be designated as "widely ranging." It is evident, however, that this can be only a rough classification since some of the widely ranging forms may have been quite as long on the islands as some of the recently or even primitively indigenous forms, but may belong to very stable species, which have undergone very little or no modification in response to differences of geographical environment.

It is certain, nevertheless, that what we have called the primitively indigenous forms are the most distinctive and striking component in the ant-fauna of each island. In Haiti this component, as previously stated, comprises 19 species. Two of these, *Emeryella schmitti* and *Spaniopone haytiana*, also represent genera peculiar to the island. The only other Antille known to have a peculiar genus (*Nesomyrmex*) is Grenada. Both *Emeryella* and *Spaniopone* belong to the Ponerinæ, the most primitive of the five subfamilies of Formicidæ, the former allied to the neotropical subgenus *Gnamptogenys* of the genus *Ectatomma*, the latter allied to *Proceratium* and *Sysphincta*, but more primitive and more like the extinct *Bradoponera* of the Baltic amber and *Discothyrea*, a small and evidently very ancient genus, with discontinuous distribution (Central America, New Guinea). Three other Ponerinæ, *Platythyrea strenua*, *Lobopelta antillana* and *Stenomyrmex haytianus* are also confined to Haiti. In addition to these there is a peculiar *Solenopsis* (*S. inermiceps*), two species of *Ephebomyrmex* (*E. schmitti* and

[1] Since the publication of the senior author's paper on the Ants of Cuba, Bull. Mus. Comp. Zoöl., LIV, 1913, pp. 477–505, two additional forms have been found among material from the island, namely *Crematogaster victima* F. Smith subsp. *steinheili* Forel and *Monomorium destructor* Jerdon.

saucius), a subgenus of *Pogonomyrmex*, a peculiar *Aphænogaster* (*A. relicta*), two species of *Macromischa* (*M. sallei* and *flavidula*), an aberrant *Cryptocerus* (*C. hæmorrhoidalis*), a distinct *Iridomyrmex* (*I. keiteli*), a *Tapinoma* (*T. opacum*) and two extraordinary species of *Camponotus* (*C. christophei* and *toussainti*). *Pogonomyrmex*, a genus well-represented in the Western United States, Mexico, Guatemala, Eastern Brazil and western and southern South America, occurs no where else in the West Indies. *Camponotus christophei* and *toussainti* are closely allied to a very peculiar species (*C. saussurei*) known only from St. Thomas. Another striking peculiarity of the Haitian fauna is displayed in the great development of forms belonging to the *C. maculatus* group. This is very poorly represented in Cuba, Jamaica and Porto Rico. Affinities of the Haitian with the Cuban and Porto Rican ant-faunas are indicated by the species of *Macromischa*, a genus best represented in Cuba (with nine species), but not known to occur in Jamaica, though represented by a few species in Mexico, Texas and the Bahamas. On the other hand, special affinities with the Jamaican fauna are indicated only by *Trachymyrmex jamaicensis*, which is also found in the Bahamas, but is not known to occur in Cuba.

Subfamily Ponerinæ.

1. **Platythyrea strenua** sp. nov. (Fig. 1.)

Worker. Length 8–8.5 mm.

Body rather stout. Head subrectangular, excluding the mandibles less than 1½ times as long as broad, with very feebly convex sides and very feebly concave pos-

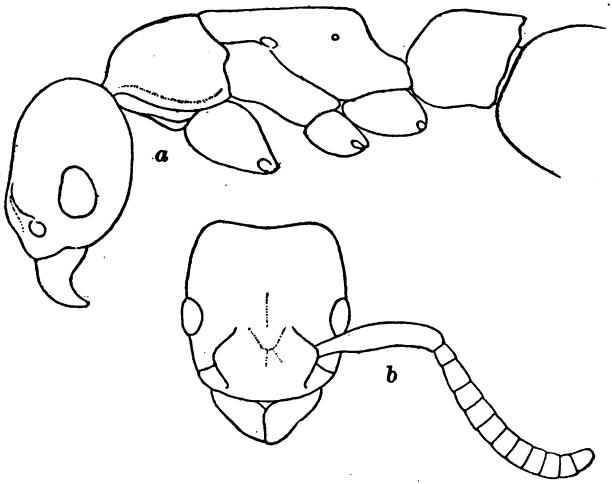

Fig. 1. *Platythyrea strenua* sp. nov. Worker. a, profile of head, thorax and petiole; b, head of same from above.

terior border. Eyes rather large and flat, nearly as long as their distance from the anterior border of the head and a little in front of the middle of its sides. Mandibles edentate, rather flat, their external borders very feebly concave near the tips. Clypeus flat, with broadly rounded anterior border, and indistinct posterior suture. Frontal area and frontal groove distinct, the former elliptical, about twice as long as broad. External borders of the flattened frontal carinæ bluntly angular. Antennal scapes reaching to the posterior corners of the head; second and terminal funicular joints longer than broad, remaining joints as broad as long. Thorax unarmed, narrower than the head, broader in front than behind, with flattened sides and dorsal surface, so that the latter appears submarginate laterally. Epinotal declivity concave, forming a distinct angle in profile with the base and surrounded on the sides and above with a distinct ridge. Petiole subcuboidal, from above but little longer than broad, as broad in front as behind, but narrower than the epinotum, its posterior border above and in the middle but slightly and very bluntly produced backward and very feebly, sinuately excised on each side. Gaster nearly twice as broad as the petiole, its first segment a little broader than long, the second as long as broad. Legs rather stout.

Body and appendages opaque, very finely and densely punctate, gaster slightly shining, sides of first gastric segment, mandibles and cheeks also with slightly larger, but by no means coarse punctures.

Hairs lacking, except on the tips of the mandibles and gaster and on the palpi, where they are very short. Pubescence very fine, yellowish gray, covering the body and its appendages with a uniform bloom.

Black; mandibles, clypeus, frontal carinæ, antennæ, tarsi and articulations of legs tinged with dull red; terminal gastric segments pale red.

Described from several workers taken at Diquini, from a rotten log, in close proximity to a termite colony.

This is clearly distinct from any of the five known neotropical species of *Platythyrea.* It is larger and more robust than *punctata* Smith, *meinerti* Forel and *angusta* Forel, darker in color than *meinerti,* which is brown and differs also in the shape of the petiole. *P. strenua* is also peculiar in lacking the coarse punctuation of *angusta* and *punctata.* From *sinuata* Roger it differs in lacking the mandibular teeth and from *incerta* Emery, which it resembles in size and in its more robust stature, it may be distinguished by the absence of coarse punctures on the head and mandibles, by the smaller frontal carinæ, the more distinct frontal groove, etc.

2. **Platythyrea punctata** F. Smith.

Catalog. Hymen. Brit. Mus. VI, 1858, p. 108 ♀ ♂.

This species was originally described from San Domingo, but has since been found to be widely distributed through the West Indies, Central and northern South America. The junior author has taken it at Cape Haitien, Grande Rivière and Milot, running about on the ground in shady places.

3. **Emeryella schmitti** *Forel.* (Figs. 2 and 3.)

Ann. Soc. Ent. Belg., XLV, 1901, p. 334, ♀.

Worker. Length 7–9 mm.

Head large, subrectangular, broader than long, broader in front than behind, with rather straight sides and feebly excised posterior border. Eyes moderately large, at the middle of the sides of the head. Mandibles longer than the head, inserted far apart at its anterior corners, sublinear and curved, somewhat broader at the base, obliquely truncated at the tip, with a large, blunt, triangular tooth at

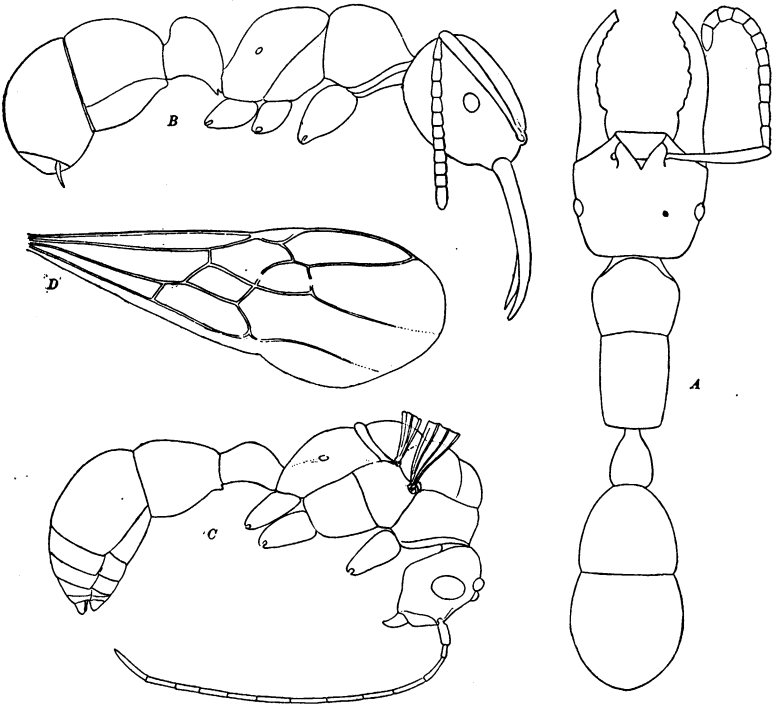

Fig. 2. *Emeryella schmitti* Forel. A, dorsal view of worker; B, profile of worker; C, profile of male; D, wing of male.

the basal third and a few indistinct, widely separated denticles on the most distal portion of the internal border. Clypeus very short, its anterior border in the middle straight, excised on the sides at the insertions of the mandibles, its median surface rather flat. Frontal carinæ very short, about as far apart as each is from the lateral border of the head. Frontal area distinct, triangular. Antennal scapes slightly curved, their tips extending a short distance beyond the posterior corners of the head; funicular joints 1–4 distinctly longer than broad, the second longest; joints 5–10 scarcely longer than broad, terminal joint as long as the two preceding taken together. Thorax short and robust, much narrower than the head, broadest

through the pronotum which has rounded, convex sides and dorsum. Promesonotal suture deep. Meso- and epinotum not separated by a suture, together but little longer than the pronotum including the neck. The base of the epinotum, which is unarmed, straight above in profile and passing into the concave or flattened declivity through a rounded angle. Petiole longer than broad, narrower in front than behind, about as long as high, in profile rounded and convex above, with a more abrupt posterior declivity to the node; ventrally with a small tooth at its anterior border. Gaster more than twice as broad as the petiole, short, its first segment campanulate, as broad as long, with a strong tooth on its anterior ventral border; second segment somewhat longer than broad, very convex dorsally, remaining segments small, telescoped into the second segment and directed forward. Sting small. Legs rather long.

Somewhat shining; mandibles coarsely and sparsely punctate; head and pronotum sharply longitudinally rugose; meso- and epinotum and petiolar node transversely rugose; first gastric segment in front with arcuate rugæ which enclose behind a space that is longitudinally rugose; second segment with much coarser and sharper rugæ converging at the anterior and posterior borders of the segment. Antennal scapes and legs covered with small piligerous punctures.

Hairs short, coarse, grayish, erect on the body, shorter and more reclinate on the appendages.

Black, with a slight reddish tinge, which is more pronounced on the mandibles, antennæ, tarsi and articulations of the legs; terminal segments of gaster paler red or brownish.

Male. Length 6–7 mm.

Head, including the mandibles, a little longer than broad, very convex and rounded behind, with large, convex eyes and ocelli. Clypeus moderately convex, with broadly and feebly excised anterior border. Frontal area distinct, triangular; frontal carinæ very small. Mandibles small, triangular, pointed, with a few distinct teeth on the base of their apical border. Antennæ very long; funicular joints 2–13 slender, cylindrical and subequal, first joint somewhat longer than broad, distinctly shorter than the third joint. Thorax rather short and robust, mesonotum with pronounced Mayrian furrows; epinotum sloping, rounded, unarmed, without distinct base or delivity. Petiole nearly twice as long as broad, scarcely narrower in front than behind, above with a very low, rounded node and below feebly concave in profile, with a minute tooth at its anterior end. Gaster similar to that of the worker, but the first and second segments more slender and the terminal segments more developed and not turned forward. First segment with a median longitudinal ridge on the dorsal side. Genitalia very small. Hypopygium minute, bluntly triangular. Cerci present. Legs long, and slender. Wings rather narrow.

Body shining. Mandibles, head and posterior portion of mesonotum punctate and finely, longitudinally striate. Surface of epinotum, petiole and first gastric segment uneven but scarcely rugose, the epinotum with coarse, scattered punctures. Second and following segments smooth and shining and like the legs, covered with minute piligerous punctures.

Hairs yellow, erect and abundant, both on the body and appendages.

Uniformly red; antennæ beyond the second joint fuscous; wings infuscated, with blackish veins and stigma.

Described from numerous workers and four males collected at Diquini

and Petionville.[1] Although the males were not taken in the nests but at lights, we believe there can be no doubt about their identity. The larvæ and pupæ taken from the nests are peculiar, the former resembling the larvæ of *Stigmatomma pallipes*, described many years ago by the senior author, in being very broad behind and very narrow and curved anteriorly and instead of being tuberculate, have the body covered with dense, soft, erect hairs. The pupae are enclosed in cocoons which are dark brown and singularly short and broad and obtuse at the ends.

This extraordinary ant, which both Forel and Emery believe to be most closely related to *Gnamptogenys*, a subgenus of *Ectatomma*, though the structure of the head bears a strange superficial resemblance to that of the

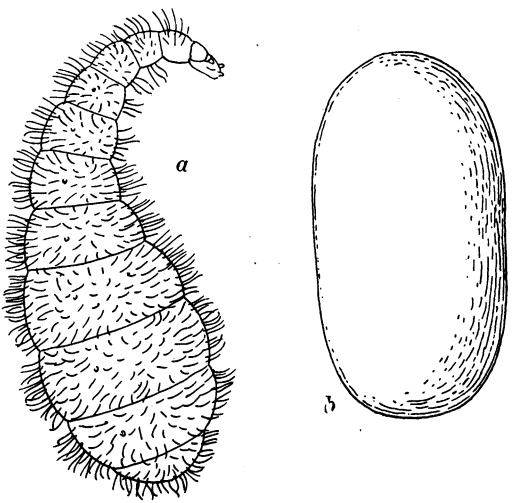

Fig. 3. *Emeryella schmitti* Forel. a, larva; b, pupa.

species of *Amblyopone*, *Stigmatomma* and *Mystrium*, has been known hitherto from only a single worker, which was sent to Forel by Rev. P. J. Schmitt, O. S. B. It is certainly a rare species even in Haiti and was found by the junior author only on three occasions. At Petionville a single worker was captured in a humid spot near a little stream. At Diquini, in a shaded place, also near a stream, two colonies were found, one under a stone and one by following up a worker that was out foraging in the late afternoon. This worker was carrying a Polydesmid Diplopod thrown over its body in such a manner that the ant was entirely concealed beneath its burden. The

[1] We have recently received several more males of *E. schmitti* from Dr. Terres, who took them at light at Diquini.

opening of the nest was circular and about ¼ of an inch in diameter, and led into a tunnel beneath a stone where some of the workers were gathered, though most of them, together with the larvæ and pupæ, were in chambers deeper in the earth, some six or seven inches below the surface. Scattered about in the nest were numerous fragments and several entire examples of a species of Polydesmid and of another Diplopod allied to our northern *Julus*. This fact, together with the behavior of the worker described above, indicates that *E. schmitti* feeds chiefly or entirely on Myriopods. The workers move slowly and deliberately like those of *Ectatomma tuberculatum* and *ruidum*. They seem to be very timid and secrete themselves when the nest is excavated. Probably they are crepuscular. The males are attracted to lights, all the specimens having been taken at night by Mr. J. B. Terres on the verandah of his house at Diquini.

Spaniopone gen. nov.

Worker. Allied to *Proceratium* Roger. Head shaped as in this genus, with minute eyes just behind the middle of its sides. Mandibles triangular, with indistinct denticles on their apical borders. Clypeus much larger than in *Proceratium*, with broadly rounded anterior border and its posterior border separated by a distinct suture from the front and cheeks and not wedged in between the frontal carinæ. These are well-developed but short, not covering the insertions of the antennæ, nearer together than each is from the side of the head, with feeble flattened lobes anteriorly and somewhat diverging posteriorly. Antennæ 12-jointed; scapes slightly enlarged but not incrassated at their tips; funiculi with a distinct 3-jointed club; first funicular joint longer than broad; joints 2–8 transverse but growing longer distally; joints 9 and 10 subequal, as long as broad and broader than the preceding joints; terminal as long as the three preceding joints together. Thorax shaped much as in *Proceratium*, but unarmed and with distinct pro-mesonotal and mesoëpinotal sutures. Petiole decidedly transverse, somewhat less squamiform than in *Proceratium*, the anterior surface being flattened; the upper rounded in profile and the posterior very short. First gastric segment fully as long and as large as the second, which is very convex above. Remaining segments small, forming a cone which is directed downward and forward. Tarsal claws simple; tibiæ with but a single spur.

4. **Spaniopone haytiana** sp. nov. (Fig. 4.)

Worker. Length 2.5 mm.

Head subrectangular, about ⅓ again as long as broad, as broad in front as behind, with feebly convex sides and feebly and broadly excised posterior border. Mandibles with straight external and apical borders, the latter passing into the basal border through a distinct though rounded angle. Clypeus convex. Antennal scapes more than half as long as the funiculi, not reaching the posterior corners of the head. Pronotum with rounded humeri, rather flat above, somewhat broader than long, mesonotum twice as broad as long. Epinotum from above slightly broader than

long, in profile with the base short and passing rather abruptly through a rounded angle into the longer declivity. Petiole from above as broad as the epinotum, fully twice as broad as long, with rounded dorsal surface, subpedunculate in profile; its anterior slope is long and flattened, its summit rounded and its declivity very short. On the ventral side it bears a blunt tooth at its anterior border. First gastric segment as long as broad, with a small transverse swelling on its ventral surface near the anterior edge. Legs rather slender.

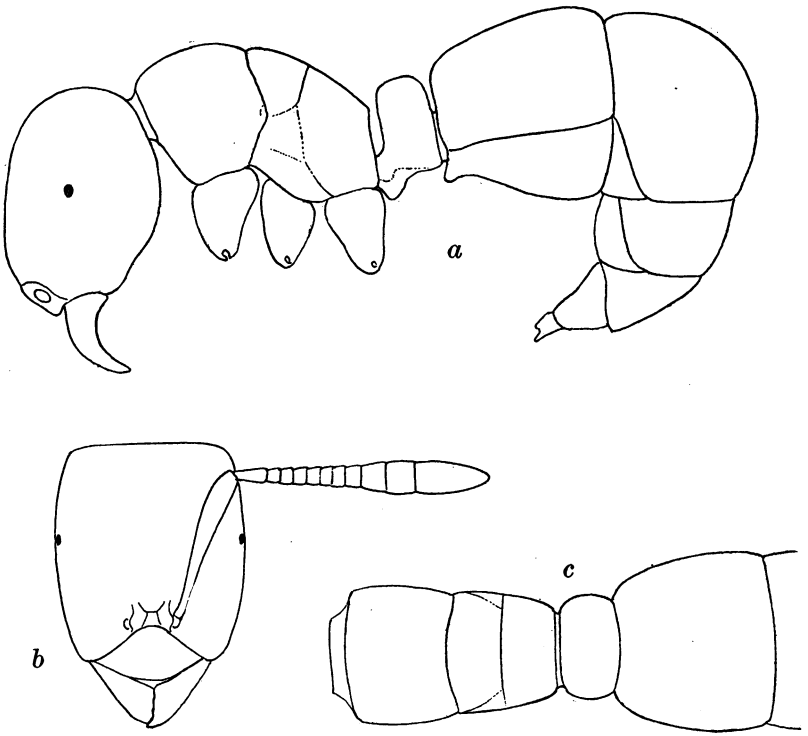

Fig. 4. *Spaniopone haytiana* sp. nov. Worker. a, profile; b, head from above; c, dorsal view of thorax, petiole and first segment of gaster.

Body opaque; mandibles, second and succeeding gastric segments shining; mandibles coarsely striato-punctate. Head delicately longitudinally rugulose; thorax, petiole and first gastric segment very finely punctate and indistinctly rugulose; first and second gastric segment very finely, transversely striated.

Hairs whitish, fine, rather abundant, suberect on the body, shorter and more appressed on the legs.

Color brownish yellow; mandibles slightly reddish, with black apical borders. The second and succeeding gastric segments and the legs slightly paler, the funiculi darker.

Described from a single specimen taken in the mountains north of Jacmel on a moist hill-side beneath a fallen banana stalk. It has been

necessary to erect a new genus for this singular ant, because it is obviously neither a *Proceratium* nor a *Sysphincta*, as shown by the structure of the clypeus, frontal carinæ, petiole and first gastric segment, the clubbed antennæ and the distinct thoracic sutures, though it is undoubtedly closely related to the first of these genera and must be included in the tribe Proceratini, as defined by Emery (Gen. Insect., Ponerinæ, p. 49). That it is a very primitive member of the group is indicated by the persistence of the thoracic sutures and the characters of the head, excepting the eyes. The reduction of these organs proves that it is hypogæic in habit like our northern species of *Proceratium* and *Sysphincta*.

5. **Euponera (Trachymesopus) stigma** *Fabr.*

Formica stigma Fabricius, Syst. Piez., 1804, p. 400. ☿.

Numerous workers and deälated females from Petionville, Manneville and Diquini. This ant is also recorded by Forel (Mitth. Naturh. Mus. Hamb. XXIV, Beiheft, 1907 p. 1) from St. Marc, Haiti.

6. **Euponera (Trachymesopus) stigma** *Fabr.* var. **rufescens** var. nov.

Worker. Differing from the worker of the typical form and the var. *attrita* Forel, in its smaller size and in coloration. It measures only 3.5–4.5 mm., and is red instead of black, with the top of the head in some specimens darker and more brownish.

Female (deälated). Indistinguishable in color, sculpture and size from the typical *stigma*.

Described from nine workers and a single female taken on the shore of Lake Assuei at Manneville. These were all from the same colony, which was nesting in the moist sand beneath a log. The workers cannot be immature as such individuals have a drab color in the typical *stigma*.

7. **Ponera opaciceps** *Mayr.*

Verh. zool. bot. Ges. Wien, XXXVIII, 1887, p. 536, ☿ ♀.

Numerous workers from Diquini, Grande Rivière and the mountains north of Jacmel.

8. **Ponera ergatandria** *Forel.*

Trans. Ent. Soc. London, 1893, p. 365, ☿ ♀ ♂.

Numerous workers from Ennery, Manneville, Grande Rivière and Diquini.

9. **Leptogenys puncticeps** *Emery.*

Ann. Soc. Ent. France (6), X, 1890, p. 62, *nota*, ♀ .

Six workers and a male taken at Diquini and Grande Rivière agree closely with Emery's description of the types from Costa Rica and some workers taken by Prof. C. T. Brues in the island of Grenada. Forel described from St. Vincent a variety *vincentensis* which Emery (Gen. Insect. Ponerinæ, p. 100) refers to this species, but which Forel referred to *pubiceps* Emery (Rev. Suisse Zool., IX, 1901, p. 328). The nest of *L. puncticeps* at Diquini was in the ground, beneath débris, in an unused tobacco shed.

10. **Leptogenys (Lobopelta) antillana** sp. nov. (Fig. 5.)

Worker. Length 4.5–5.5 mm.

Body slender. Head about 1⅓ times as long as broad, a little broader in front than behind, with rather straight sides and posterior border. Eyes small, shorter

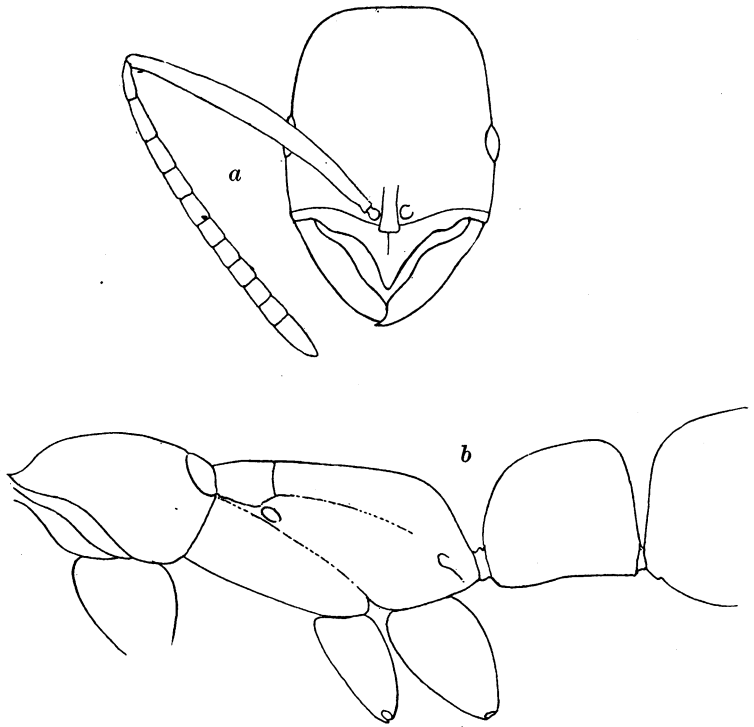

Fig. 5. *Leptogenys (Lobopelta) antillana* sp. nov. a, head of worker from above; b, thorax and petiole of worker in profile.

than their distance from the anterior corners of the head. Mandibles narrow but with distinct apical and basal borders. Clypeus very strongly carinate, with an anterior, median, beak-like point, filling the space between the mandibles when they are closed. Antennæ slender; scapes extending a little more than their greatest diameter beyond the posterior border of the head; funicular joints 1–5 decidedly longer than broad, the second longest, joints 6–10 only slightly longer than broad. Thorax in front as broad as the head, pronotum as broad as long, meso- and epinotum together longer than the pronotum, in profile with straight dorsal surface about twice as long as the declivity which is feebly convex. Petiole from above $1\frac{1}{2}$ times as long as broad, twice as broad behind as in front, the node laterally compressed, in profile as high as long, as high in front as behind, evenly rounded above, with short, abrupt, rounded anterior and posterior declivities. Gaster and legs slender.

Smooth and shining. Mandibles with a few coarse punctures along their internal borders.

Hairs whitish, short, suberect or reclinate, not very abundant on the body, more abundant and shorter on the scapes and legs.

Black; mandibles, funiculi, bases and tips of scapes, tarsi, knees, tips of tibiæ and tip of gaster red or reddish brown.

Described from seven specimens taken at Milot, Diquini and Petionville.

This species closely resembles *L. consanguinea* Wheeler of Mexico, but the mandibles are broader, with a distinct apical border, the petiole is of a very different shape, the antennal scapes are shorter and the pilosity is longer and more abundant.

11. **Anochetus mayri** *Emery.*

Emery, Ann. Mus. Civ. Genova, XXI, 1884, p. 378, ☿ ; Ann. Soc. Ent. France (6), X, 1890, p. 65, ☿ ♀.

Numerous workers and females from Manneville, Grande Rivière, Diquini, Milot and the mountains north of Jacmel.

12. **Anochetus (Stenomyrmex) haytianus** sp. nov. (Fig. 6 *d*, *e* and *f*.)

Worker. Length 6.5–7.5 mm.

Differing from *emarginatus* Fabr. in the following structural characters: The head is much broader behind, the mandibles shorter, with fewer (4 to 5) denticles on their inner borders and slightly shorter apical teeth. The antennal scapes and all the funicular joints are distinctly shorter, the former extending less than $\frac{1}{4}$ their length beyond the posterior corners of the head. The epinotum is quite unarmed, low and rounded in profile. The petiole is more erect, with subequal anterior and posterior declivities and at the summit with two teeth which are longer, more acute and more diverging than in *emarginatus*.

Body smooth and shining; pronotum finely and longitudinally, meso- and epinotum more coarsely and transversely rugose; front of head also finely longitudinally rugose, the rugæ diverging posteriorly.

Hairs very sparse as in *emarginatus* and confined to the mouth and gaster.

Color brownish yellow, legs, mandibles and antennæ paler, the tint throughout being lighter than in *emarginatus* subsp. *testaceus* Forel.

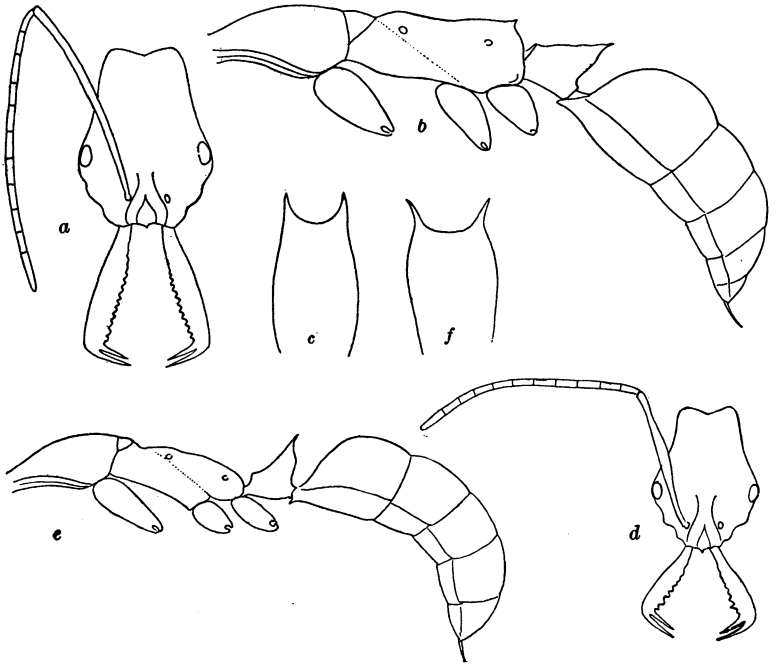

Fig. 6. a, head of *Anochetus* (*Stenomyrmex*) *emarginatus* (Fabr.) subsp. from Brazil, from above; b, body of same in profile; c, petiole of same from behind; d, head of *A.* (*S.*) *haytianus* sp. nov.; e, body of same in profile; f, petiole of same from behind.

Described from a number of specimens taken at Manneville and in the mountains north of Jacmel from small colonies nesting under stones in shady places.

This form is more than a mere subspecies of *emarginatus,* as all the various described subspecies of that form agree very closely with one another in their morphological characters.

13. **Odontomachus hæmatoda** *L.*

Formica hæmatoda LINNÉ, Syst. Nat. Ed. X, 1758, p. 582, ☿.

This typical, large, dark form of the species is recorded by Forel from Port au Prince (Mitth. Naturh. Mus. Hamb., XXIV, 1907, Beiheft, p. 1 ☿ ♀).

A male and two small workers taken by the junior author at St. Marc and three workers from Manneville are referable to this form, which has 15–18 subequal denticles on the inner mandibular border.

14. **Odontomachus hæmatoda** *L.* var. **paucidens** *Emery.*

Ann. Soc. Ent. France, LXII, 1893, p. 91, *nota*, ☿.

The types of this variety came from Haiti, and it has also been recorded by Forel from St. Marc and Cape Haitien (Mitth. Naturh. Mus. Hamb., XXIV, 1907, Beiheft, p. 1, ☿). It has the same sculpture and color as the typical form but the mandibles are shorter and have only 10–12 denticles on the inner mandibular border and the subapical teeth are large. We refer to this form a large number of specimens taken at Grand Rivière, Manneville, Furcy, Ennery, Diquini, Port au Prince, Petionville, and the mountains north of Jacmel.

15. **Odontomachus hæmatoda** *L.* subsp. **insularis** *Guérin.*

O. insularis GUÉRIN, Icon. Règne Animal. Ins., VII, 1845, p. 423, ☿.

This subspecies, which is common in Cuba, Florida and Georgia, has been recorded from Haiti by Emery, but is not represented among the specimens taken by the junior author.

SUBFAMILY MYRMICINÆ.

16. **Pseudomyrma flavidula** *F. Smith* var. **delicatula** *Forel.*

Ps. delicatula FOREL, Biol. Centr. Amer., 1899–1900, p. 93, ☿ ♀.

Several workers from Cape Haitien and Port au Prince. In the latter locality a nest was found in a twig in the courtyard of the American Legation.

17. **Pseudomyrma championi** *Forel* subsp. **haytiana** *Forel.*

Ann. Soc. Ent. Belg., XLV, 1901, p. 342, ☿; Mitth. Naturh. Mus. Hamb., XXIV, 1907, Beiheft, p. 7.

The color of the worker of this variety is described by Forel as the same as that of the typical form, "but the antennæ are rather bright yellow and the legs blackish brown, with the tarsi and articulations yellowish. The second node of the pedicel has reddish spots. Another reddish spot is found

on each side behind the eye. The red of the thorax and first joint of the pedicel is quite as bright, though more opaque; there is a brown spot on the mesonotum and another on the declivity of the metanotum." The type specimens were received by Forel from Father Jerome Schmitt with the locality "Haiti." Other specimens were later received from Keitel who took them at Port au Prince. None of the specimens before us agrees closely with Forel's description of *haytiana.* They all seem to belong to two varieties which may be described as follows:

18. **Pseudomyrma championi** *Forel* subsp. **haytiana** *Forel* var. **affinis** var. nov.

The worker has the entire head, except its anterior border, black. The mesonotum has a black spot as described by Forel for the typical *haytiana,* but the epinotum has a narrow black streak down its middle and is somewhat infuscated on the sides. The petiole and postpetiole are black or dark brown, the former yellow at the base. The fore tibiæ are often entirely reddish yellow.

The female (deälated) measures 8 mm. and has the thorax, petiole and postpetiole reddish yellow, with a large black spot on the mesonotum, a smaller one on the scutellum, a black streak on the middle of the epinotum, two minute dusky spots on each side of the post-petiole and two small spots on the petiolar node.

Specimens of this variety were taken from several colonies in twigs at Diquini and Petionville. The female is from the former locality.

19. **Pseudomyrma championi** *Forel* subsp. **haytiana** *Forel* var. **torquata** var. nov.

The worker differs from that of the preceding form in having the petiole, postpetiole and thorax black, except the pronotum, which is yellowish red.

Numerous workers from Grande Rivière and Cape Haitien.

20. **Pseudomyrma elongata** *Mayr* var. **cubaënsis** *Forel.*

Mitth. Naturh. Mus. Hamb., XXIV, 1907, Beiheft, p. 7, ♀.

Several workers taken from hollow twigs at Grande Rivière and the mountains north of Jacmel closely resemble this common Cuban variety in their small size and the structure of the antennæ, head, petiole and thorax. This same variety is recorded by Forel from Cape Haitien (C. Gagzo).

21. **Pseudomyrma elongata** *Mayr* subsp. **subatra** subsp. nov.

Worker. Length 4–4.5 mm.

Differing from the typical *elongata* and the preceding variety in having the head somewhat shorter, the base of the epinotum shorter, more convex, and more rounded, so that it passes into the declivity with a much less distinct angle. The petiole and postpetiole are somewhat more slender, the former narrower behind, the latter slightly longer than broad. The surface of the body, behind the anterior portion of the head, much more shining, the punctures distinct but finer than in the other forms of *elongata* and the color much darker, being black, with the anterior portion of the head dark brown and the mandibles, clypeus and antennæ paler brown. The legs, including the tarsi, are black throughout.

Described from several workers taken at Diquini in the stems of bamboo. These specimens may represent a distinct species, but for the present we deem it best to regard them as having merely subspecific rank.

22. **Monomorium salomonis** *L.*

Formica salomonis LINNÉ, Syst. Nat. ed 10, I, 1758, p. 580, ☿ .

Several workers and a deälated female of this well-known north African species were taken at Manneville from a large colony nesting beneath a stone in a very dry locality. The senior author has recorded it also from Nassau, New Providence Island, Bahamas. It has evidently been introduced into the West Indies by commerce, but seems to be spreading very slowly.

23. **Monomorium floricola** *Jerdon.*

Atta floricola JERDON, Madras Journ. Lit. and Sci., XVII, 1851, p. 107, ☿ .

Several workers and females from Petionville.

24. **Monomorium carbonarium** *F. Smith* subsp. **ebeninum** *Forel.*

Monomorium carbonarium FOREL, Mitth. Münch Ent. Ver., V, 1881, p. 8, ☿ .

Numerous workers and a female from Diquini, Manneville and Petionville.

25. **Cardiocondyla venustula** *Wheeler.*

Bull. Amer. Mus. Nat. Hist., XXIV, 1908, p. 128, ☿ ♀.

A single deälated female from the mountains north of Jacmel agrees very closely with the type female taken at San Juan, Porto Rico.

26. **Solenopsis geminata** *Fabr.*

Atta geminata FABRICIUS, Syst. Piez., 1804, p. 423, ♀.

Numerous workers of all sizes, together with males and females taken at Furcy, Cape Haitien, Manneville, and Diquini by the junior author and three workers taken in the San Francisco Mountains, San Domingo by Mr. Aug. Busck are all paler and more reddish than the common form in Cuba, Porto Rico and Jamaica and may represent a distinct variety. The species is also recorded from Port au Prince by Forel.

27. **Solenopsis globularia** *F. Smith.*

Myrmica (Monomorium) globularia F. SMITH, Catalog. Hymen. Brit. Mus., VI, 1858, p. 131, ☿ ♀ ♂.

Recorded by Forel from Port au Prince.

28. **Solenopsis globularia** *F. Smith* var. **borinquenensis** *Wheeler.*

Bull. Amer. Mus. Nat. Hist., XXIV, 1908, p. 131, ☿.

Six workers from Manneville agree very closely with the types of this variety from Culebra Island.

29. **Solenopsis pollux** *Forel.*

Trans. Ent. Soc. London, 1893, p. 393, ☿ ♀ ♂.

Several workers from Cape Haitien and Manneville.

30. **Solenopsis inermiceps** sp. nov. (Fig. 7.)

Worker. Length nearly 2 mm.

Allied to *S. sulfurea* Roger. Head about 1⅓ times as long as broad, subrectangular, with feebly convex sides and feebly and broadly excised posterior border. Eyes minute, at the anterior third of the head. Clypeus moderately convex, with broadly rounded anterior border, without longitudinal carinae or traces of teeth. Antennal scapes fully ⅔ as long as the head; club large, as long as the remainder of the funiculus, its last joint 3 times as long as the penultimate; joints 3–7 slightly broader than long, first joint nearly as long as the four succeeding joints together. Mandibles oblique, with short teeth. Pro- and mesonotum robust, twice as long as the epinotum and 1½ times as long as broad, moderately convex above and on the sides, separated from the epinotum by a strong suture and feeble impression. Epinotum small, a little longer than broad, its surface in profile sloping and feebly convex, without distinct base and declivity. Petiole with a slightly transverse, rounded node, which is a little narrower and higher than the postpetiole, with a small acute anteroventral tooth on the

peduncle. Postpetiole slightly broader than long, rounded. Gaster elongate elliptical, slightly narrowed in front. Legs rather slender.

Smooth and shining; the piligerous punctures scattered and extremely minute.

Hairs yellowish, erect, very sparse on the body; on the appendages shorter, denser and appressed.

Reddish yellow; head and thorax a little darker than the pedicel, gaster and appendages.

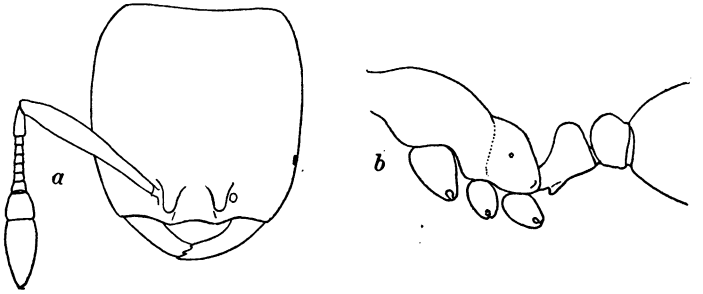

Fig. 7. *Solenopsis inermiceps* sp. nov. a, head of worker from above; b, profile of thorax and pedicel of worker.

Described from three workers taken at Petionville. A single specimen from Grande Rivière evidently belongs to the same species but is somewhat smaller (1.5 mm.). *S. inermiceps* is apparently very close to Roger's *S. sulfurea*, which was inadequately described. Emery has examined a cotype, however, and has figured the head (Bull. Soc. Ent. Ital., XXXVII, 1905, p. 136, fig. 17), which differs from that of *inermiceps* in having carinæ and very small teeth on the clypeus, in the outline of the head and the somewhat longer antennal scapes.

31. **Crematogaster victima** *F. Smith* var. **steinheili** *Forel.*

Cremastogaster steinheili Mitth. Münch. Ent. Ver., V, 1881, p. 15, ♀.

Several workers and a deälated female from Manneville and Port au Prince agree very closely with specimens of this variety from Kingston Jamaica, except in having the gaster somewhat darker brown.

32. **Pheidole fallax** *Mayr* subsp. **jelskii** *Mayr.*

Pheldole jelskii, Horæ Soc. Ent. Ross., XVIII, 1884, p. 34, ♀♀.

Recorded from Port au Prince by Forel.

33. **Pheidole fallax** *Mayr* subsp. **jelskii** Mayr var. **antillensis** *Forel.*

Ph. jelskii var. *antillensis* FOREL, Ann. Soc. Ent. Belg., XLV, 1901, p. 365, ♀ ♀

All the specimens, comprising soldiers, workers and males, taken at Diquini, St. Marc, Grande Rivière, Manneville, Port au Prince and in the

mountains north of Jacmel, are properly referable to this variety, which is very common, nesting in the ground, usually in open, dry localities. Several large colonies were nesting in the courtyard of the American Legation at Port au Prince.

34. **Pheidole megacephala** *Fabricius.*

Formica megacephala FABRICIUS, Ent. Syst., II, 1793, p. 361, ♀.

Soldiers, workers and deälated females from Furcy, Milot and Diquini.

35. **Pheidole terresi** sp. nov.

Soldier: Length 2.3–2.6 mm.

Allied to *Ph. floridana* Emery. Head a little longer than broad, as broad in front as behind, with feebly convex sides, rather angular posterior corners and rather deeply and angularly excised posterior border. Occipital groove rather deep behind but disappearing anteriorly in the middle of the head, which is convex. Antennal sulci very feebly developed. Eyes rather small, at the anterior third of the head. Mandibles convex, with two apical teeth. Mentum with two prominent, acute teeth at its anterior border. Clypeus short, rather depressed, its anterior border feebly bidentate in the middle. Antennæ slender, scapes as long as half the distance from their insertions to the posterior corners of the head, joints 2–8 of the funiculus subequal, as long as broad, club as long as the remainder of the funiculus. Thorax robust, the pronotum nearly half as broad as the head, with prominent, angular humeri, separated by a distinct suture from the mesonotum which is small, abruptly sloping and with a transverse swelling. Mesoëpinotal constriction deep. Epinotum small and short, not longer than broad, in profile with the base a little shorter than the declivity, bearing two small, acute, erect teeth, which are decidedly shorter than their distance apart at the base. Petiole about 1½ times as long as broad, with small but prominent anterior angles when seen from above broadest behind through the node, which is compressed anteroposteriorly, rather acute at the summit in profile and with its upper margin rather deeply notched when seen from behind. Postpetiole broader than long, somewhat broader than the petiole, with a very short, acute conule on each side a little in front of the middle. Gaster about as large as the head. Legs rather long, the femora and tibiæ not conspicuously swollen.

Shining throughout. Mandibles with coarse, scattered punctures. Clypeus smooth in the middle, longitudinally rugose on the sides. Head sharply longitudinally rugose on its anterior half, the interrugal spaces neither reticulate nor punctate and the rugæ absent behind on the antennal sulci, which are smooth and shining and not sharply defined laterally. Anteriorly these sulci are crossed by concentric rugæ running from the sides of the head to the frontal carinæ. The frontal rugæ diverge posteriorly and extend somewhat further back than those on the cheeks. The posterior portion of the head is glabrous, except for small, scattered, piligerous punctures. Thorax smooth, except the epinotum, which is subopaque, finely and rather superficially punctate-rugulose; pedicel, gaster, and legs smooth and shining, with fine, very sparse, piligerous punctures.

Hairs yellow, rather delicate, sparse, erect or suberect on the body, and anterior surfaces of the antennal scapes, a little shorter and more reclinate on the legs.

Mandibles, head, thorax and pedicel reddish yellow, remainder of body paler; borders of mandibles and clypeus broadly blackish or deep red.

Worker. Length 1–1.3 mm.

Closely resembling the soldier except in the head, which is small, smooth and shining and without rugæ, even on its anterior portion and cheeks. Antennal scapes extending a little beyond the posterior corners of the head. Pronotum longer and narrower and with rounded sides, not produced in the humeral region. Petiolar node with entire, rounded superior border, postpetiole as long as broad, rounded above and on the sides. Pilosity like that of the soldier but shorter and sparser. Color pale yellow throughout, except the borders of the mandibles and clypeus which are brownish.

Female (deälated). Length 4–4.5 mm.

Resembling the soldier. The head is broader and more nearly square, with rather straight sides and much less deeply excised posterior border. The rugæ are stronger and carried back nearly to the posterior corners. In other respects like the soldier, except for the usual morphological differences. The gaster is reddish yellow like the remainder of the body and the pilosity is somewhat more conspicuous. The wing insertions and thoracic sutures are blackish or dark brown.

Described from several soldiers and workers and two females taken from small colonies nesting in the ground in clay soil at Diquini and Milot.

This species belongs to the perplexing group of small neotropical forms including *Ph. floridana* Emery, *flavens* Roger, *anastasii* Emery, *punctatissima* Mayr, *goeldii* Forel and *mœrens* Wheeler, but differs from all of these at first sight in having the worker smooth and shining and not opaque and finely punctate. In this respect it resembles *Ph. dimidiata* Emery and *orbica* Forel, but differs from the former in the shape of the postpetiole, sculpture of the head, color, etc., from the latter in the longer antennal scapes, very different sculpture and color and very different pronotum, which is much broader and has much more prominent, angular humeri. The teeth on the epinotum are also much smaller and more acute than in *orbica*.

36. **Pheidole terresi** var. **illota** var. nov.

Soldier. Differing from the soldier of the typical *terresi* merely in having the dorsal surface more or less infuscated, the deeper color on the head being confined to the front, vertex and posterior corners.

Worker. Much darker than the soldier, the body being piceous or even blackish, with the mandibles, antennæ and legs yellow, the clypeus light brown.

Described from several soldiers and workers taken in the mountains north of Jacmel and at Furcy.

37. **Pheidole flavens** *Roger* var. **haytiana** *Forel.*

Mitth. Naturh. Mus. Hamb., XXIV, 1907, Beiheft, p. 6, ☿.

Soldier. Length 2.4–2.6 mm.

Differing from the soldier of the typical *flavens* Rog. of Cuba and the vars. *thomensis* Emery of St. Thomas and *vincentensis* Forel of St. Vincent in its sculpture, much darker color and in the shape of the epinotum. The latter has the base distinctly shorter than the declivity in profile. The head is more opaque and the longitudinal rugæ run back till they leave only the posterior fourth of the head smooth and shining, and the punctures and reticulation between the rugæ, especially on the antennal sulci, are more distinct. The head and pronotum are dull ferruginous, the remainder of the body dark brown or blackish, the antennal scapes and the femora more or less infuscated.

Worker. Length 1.5 mm.

Head and thorax dark brown or black; pedicel and gaster a little paler; antennæ, mandibles and legs yellow, the femora more or less infuscated in the middle. The base of the epinotum in profile is distinctly shorter than the declivity.

Female. Length 3.3–3.7 mm.

Thorax, pedicel and gaster black; head, including the mandibles, deep ferruginous, sometimes blackish behind. Antennæ and legs colored as in the soldier. Wings grayish hyaline, with pale brown veins and stigma.

Male. Length 3 mm.

Head blackish; thorax brown; remainder of body, including the sutures of the thorax, the antennæ, clypeus, mandibles and legs sordid yellow. Wings as in the female.

Described from numerous specimens taken from several colonies in the following localities: Petionville, Manneville, Diquini, and Grande Rivière. The nests are usually under bark. Forel has described only the worker of this variety from Port au Prince.

38. **Pheidole flavens** *Roger* var. **vincentensis** *Forel.*

Trans. Ent. Soc. London, 1893, pp. 411, ♀ ☿ ♂.

Several soldiers, workers and a single deälated female from Port au Prince, St. Marc, Grande Rivière and Petionville represent either this or a very closely allied variety of *flavens*. The soldiers and workers agree rather closely with cotypes of *vincentensis* Forel in the senior author's collection, except that the gaster in both phases is darker and in the female quite black. The Haitian specimens may, perhaps, be more properly regarded as representing a transition between the vars. *haytiana* and *vincentensis*.

39. **Pheidole punctatissima** *Mayr* var. **jamaicensis** *Wheeler.*

Several soldiers and workers and a single deälated female from Petionville. The female measures nearly 4.5 mm. and is black, with the antennæ,

mandibles, clypeus, front and cheeks ferruginous and the legs yellow, except the middle portions of the femora, which are black. The mesonotum is opaque and finely longitudinally rugose, with a median line and the parapsidal sutures smooth and shining.

40. **Pheidole mœrens** *Wheeler* subsp. **creola** subsp. nov.

Soldier. Length 2.3–2.5 mm.

Differing from the typical *mœrens* in the following particulars: the sculpture of the head is more extensive, leaving only the posterior corners shining. The longitudinal rugæ cover about ⅔ of the head and behind them the surface is densely punctate, except the posterior corners which have only a few elongate, coarse punctures. The thorax is opaque and densely punctate throughout, the petiole and postpetiole punctate on the sides, with smooth and shining nodes. The color of the body is much darker, being black, with the antennæ, mandibles and clypeus, except their borders, red, the legs yellow, with the middle portions of the femora blackened, as are also the scapes.

Worker. Length 1–1.3 mm.

Closely resembling the worker of the typical *mœrens*, except in color, the pedicel and gaster being black, like the head and thorax, and the femora infuscated.

Described from several specimens taken at Diquini and in the mountains north of Jacmel. In the typical *mœrens* and in the var. *dominicensis* Wheeler from Dominica, the sculpture of the pronotum in the soldier is transversely rugulose above and the punctuation is more superficial and less regular. *Ph. mœrens* is undoubtedly very closely related to *flavens*, and when this and the allied species have been more closely studied may prove to have only subspecific rank.

41. **Aphænogaster relicta** sp. nov. (Fig. 8*c*.)

Worker. Length 4–5 mm.

Head about 1½ times as long as broad, a little broader in front than behind, where it is rounded and without distinct posterior corners, but with a distinct occipital margin which is somewhat elevated on each side at the posterior end of the gula. Eyes moderately large and convex, just in front of the middle of the sides of the head. Mandibles rather large, with the external borders straight at the base, more convex at the tips; their apical borders with 6 or 7 teeth, those near the base being short and broad. Clypeus moderately convex in the middle, depressed on the sides, its anterior border somewhat projecting, with a narrow but distinct notch in the middle. Frontal carinæ elevated and rounded in front, lower, more approximated and subparallel behind. Antennæ rather stout, the scapes reaching fully twice their greatest diameter beyond the posterior border of the head, at the base with a compressed, rounded lobe, not unlike that on the scapes of *Myrmica scabrinodis;* funicular joints, except the last, subequal, about 1½ times as long as broad. Thorax long and robust, pro- and mesonotum narrower than the head, in profile hemispherical; seen from above

the pronotum is rather angular in front just behind the neck and more convex on the sides, behind. Mesoëpinotal constriction deep and rather narrow Epinotum longer than high, its base in profile rather convex in front, more flattened behind, twice as long as the rather sloping declivity, armed with two powerful, acute spines, which are nearly as long as the base of the epinotum, directed backward, upward and outward and slightly curved downward. Petiole from above about twice as long as broad, broadest behind, with slightly concave sides; node in profile with a longer, slightly concave anterior and a shorter, convex posterior declivity and a rather acute summit; seen from behind its border is rounded and entire. Postpetiole as long as broad, broadest behind, where it is half again as broad as the petiolar node, rounded in profile above and swollen ventrally at its anterior end. Gaster broadly elliptical. Legs long and rather stout.

Mandibles subopaque, densely and coarsely striated. Clypeus, head and thorax subopaque, very coarsely, reticulately rugose, the rugæ on the head somewhat finer than those on the thorax and with a more longitudinal trend. Epinotal spines

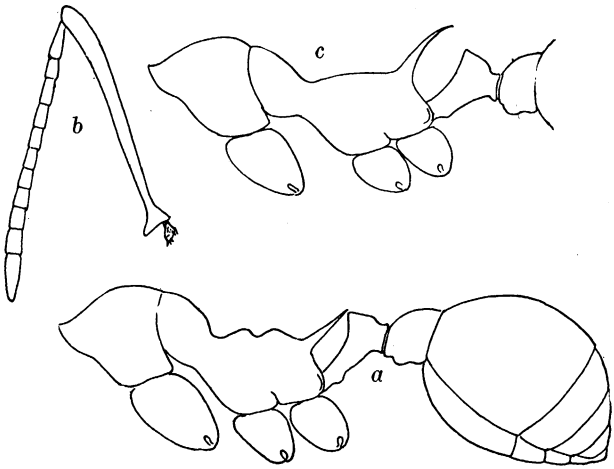

Fig. 8. *Aphænogaster relicta* sp. nov. and *A. relicta* subsp. *epinotalis* subsp. nov. Worker. a, profile of body of subsp. *epinotalis;* b, antenna of subsp. *epinotalis;* c, profile of thorax and pedicel of *A. relicta.*

shining at their tips, finely longitudinally striated at the base; epinotal declivity transversely rugulose. Neck of pronotum, petiole, postpetiole, basal and middorsal portion of first gastric segment, scapes and legs, opaque, densely and evenly punctate, with much sparser, evenly distributed and coarser piligerous punctures. Sides of first segment and the whole of the remaining gastric segments smoother, more sparsely punctate and more or less shining. Antennal funiculi rather shining.

Hairs glistening white; coarse, pointed, erect, rather long, moderately abundant, covering the body and appendages, shorter and more reclinate on the scapes and tibiæ.

Deep black; mandibles, except their bases and borders, tarsi, articulations of legs, two large spots on the base of the gaster and the upper surface of the postpetiole, dull red. In some specimens the two gastric spots are fused into one and in others the entire gaster and postpetiole are black.

Female (deälated). Length nearly 6 mm.

Differing from the worker in the shape of the thorax. The mesonotum is only moderately, the scutellum very convex and protuberant, the base of the epinotum long, slightly sloping and straight in profile, with the spines much stouter, less divergent and shorter than in the worker, being shorter than the distance between their bases. The rugosity of the thorax is somewhat finer than in the worker and the mesopleuræ are densely punctate. The sculpture of the remainder of the body, the pilosity and color are like those of the worker.

Male. Length 4 mm.

Head through the eyes about as long as broad, produced backward and somewhat conical behind. Cheeks moderately short. Mandibles feeble, but distinctly denticulate. Anterior border of clypeus broadly rounded and entire. Antennæ slender; scapes about 5 times as long as broad, first funicular joint slightly swollen, about twice as long as broad, increasing in length towards the tip. Thorax robust, the anterior portion of the pronotum projecting forward, convex, flattened behind; epinotum unarmed, sloping, without distinct base and declivity. Petiole, postpetiole and gaster similar to those of the worker.

Head, thorax, pedicel and basal half of first gastric segment opaque, densely punctate, remainder of gaster and legs shining and more superficially punctate. Mesonotum with a smooth, shining median longitudinal line.

Pilosity very similar to that of the worker.

Black; mandibles and genitalia yellow; clypeus and antennæ brown; legs piceous; wings faintly infuscated, with pale veins and stigma.

This beautiful species, the first *Aphænogaster* to be found in the West Indies, is described from numerous workers, a single female and a single male taken from several colonies at Diquini, Petionville, Port au Prince and in the mountains north of Jacmel. It nests in the earth in holes beneath stones in moist localities, usually on hill-sides. The workers are timid and very rapid in their movements. They are quite unlike the workers of any of our other North American species of *Aphænogaster* in the shape of the antennal scapes, in sculpture and coloration. The species is probably an ancient insular relict, confined to the island of Haiti.

42. **Aphænogaster relicta** subsp. **epinotalis** subsp. nov. (Fig. 8*a* and *b*.)

Worker. Differs from the typical form in having the base of the epinotum shorter and with a median transverse impression in the middle, very distinct in profile; the epinotal spines are shorter, straight and distinctly less erect and the red on the postpetiole and gaster is duller.

Described from a series of specimens taken at Manneville.

43. **Pogonomyrmex (Ephebomyrmex) schmitti** *Forel.* (Fig. 9.)

Pogonomyrmex schmitti Forel, Ann. Soc. Ent. Belg., XLV, 1901, p. 339, ♀.
Pogonomyrmex (Ephebomyrmex) schmitti Wheeler, Psyche, 1902, p. 390, ♀.
Worker. Length 3.5–4 mm.

Head subrectangular, a little longer than broad, as broad in front as behind, with rather straight sides and feebly excised posterior border. Mandibles convex, with 6 subequal teeth. Clypeus short, convex; its anterior border entire and broadly rounded. Frontal area elongate, triangular. Antennæ rather stout, their scapes not reaching to the posterior border of the head; joints 2–7 of the funiculi somewhat broader than long. Thorax short and broad, but little longer than the head, with the mandibles, including the neck nearly twice as long as broad, evenly convex above in profile, without promesonotal and mesoëpinotal sutures. Epinotum sloping, its base and declivity subequal, bearing two short, stout spines, which are directed backward, upward and outward and are longer than broad at their bases and shorter than their distance apart. Metasterna prolonged upward and backward into a pair of similar but somewhat shorter spines, which are slightly curved forward. Petiole from above fully twice as long as broad, with a slender peduncle occupying half its length and provided with a stout, triangular tooth on its ventral surface. The node, which is as broad as half the length of the whole segment, when seen in profile has a straight anterior surface rising at a right angle from the peduncle and half as long as the sloping posterior surface. The two surfaces meet at a sharp ridge, which, seen from above, forms the broadly rounded anterior margin of the node; its sides are straight and converge posteriorly to the postpetiole, which is broader than the petiole, a little broader than long, campanulate and provided with a large swelling on its anteroventral surface. Gaster slender, elongate-elliptical, with a powerful sting. Legs long and stout.

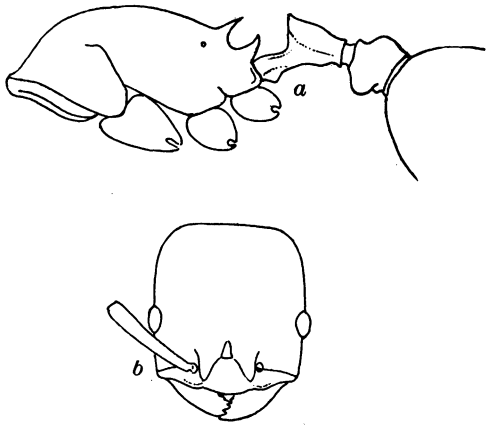

Fig. 9. *Pogonomyrmex (Ephebomyrmex) schmitti* Forel. Worker, a, profile of thorax and pedicel; b, head from above.

Mandibles and head opaque, the former and the clypeus rather finely and regularly longitudinally rugose, the head somewhat more coarsely, the rugæ with reticulate-punctate spaces between them and diverging somewhat from the median line on the posterior portion of the head. Thorax still more coarsely and somewhat more irregularly and reticulately, longitudinally rugose. Petiole, postpetiole and basal third or half of first gastric segment opaque and densely punctate the posterior surface of the petiolar node also longitudinally rugulose. Posterior portion of first gastric segment and the remaining segments shining, very superficially shagreened or reticulate, with small, sparse, piligerous punctures. Legs and scapes densely punctate, the former feebly shining, the latter opaque.

Hairs short, stiff, pointed, dark brown or blackish, moderately abundant, erect on the body, somewhat more reclinate on the legs and scapes. Gula without ammochætæ.

Black; mandibles, tip of gaster, tarsi beyond the first joint and sometimes also the peduncle of the petiole, the legs and clypeus (in immature specimens?), deep red.

Female (deälated). Length 5.5 mm.

Closely resembling the worker, but differing in the following characters. The rugæ on the mesonotum, scutellum and pleuræ are more regularly longitudinal and the epinotum and posterior surface of the petiolar node are coarsely reticulate-rugose. The epinotal spines are stouter and proportionally longer than the metasternal spines, and the gaster, though small, is proportionally broader than in the worker.

Described from numerous workers and a single female from Cape Haitien, Furcy, Petionville, Diquini, Port au Prince and the mountains north of Jacmel. These specimens all agree closely with Forel's description and with a cotype received by the senior author many years ago from Rev. P. J. Schmitt, O. S. B., to whom the species was dedicated. *P. schmitti* nests in the ground in crater nests, but sometimes also under stones. It is a harvesting ant like the other species of the genus, and like these is also fond of eating insects, for the junior author often saw workers carrying whole insects or fragments of them into the nest.

44. **Pogonomyrmex (Ephebomyrmex) schmitti** *Forel* var. **sublævigatus** var. nov.

The worker and female differ from those of the preceding form in having the postpetiole and base of the gaster smooth and shining like the remainder of the abdomen or with only traces of the fine punctures at the extreme base of the first segment.

This variety was taken at Manneville and Ennery.

45. **Pogonomyrmex (Ephebomyrmex) saucius** sp. nov. (Figs. 10 and 11.)

Worker. Length: 5–5.5 mm.

Head subrectangular, a little longer than broad, with straight sides and feebly excised posterior border and the eyes just in front of the middle of its sides. Mandibles with 6 subequal teeth and rather convex external borders. Clypeus with straight, entire anterior border and a blunt, tooth-like projection on its upper surface on each side near the lateral border. Frontal area small, elongate-triangular. Antennal scapes not reaching to the posterior corners of the head; joints 2–7 of the funiculi as broad as long. Thorax shaped as in *P. schmitti* and with similar spines on the epinotum and metasterna. Postpetiole, petiole and gaster also similar in structure, but the anterior surface of the petiolar node rises a little less abruptly from the peduncle and the posterior surface is more convex and, when seen from above, its anterior border is more pointed or acuminate in the middle.

Mandibles, head and thorax opaque. Mandibles striated; clypeus, head and thorax regularly longitudinally rugose, the interrugal spaces being finely and densely

punctate. On the cheeks the rugæ are rather far apart but are denser and diverge posteriorly on the posterodorsal portion of the head. The space enclosed by the four thoracic spines, is concave, smooth and shining. Petiole, postpetiole and gaster also smooth and shining, with small, sparse piligerous punctures, except the dorsal surface of the petiolar node, which is densely punctate and longitudinally rugose, the rugæ converging anteriorly to the apex of the node. Antennal scapes and legs finely shagreened, the former opaque, the latter somewhat shining.

Hairs dark brown, short, stiff, moderately abundant, erect on the body, somewhat more oblique on the scapes and legs. Gula without ammochætæ.

Brownish black; mandibles, except their teeth and borders, sides of clypeus, cheeks, antennæ, legs, thoracic spines, peduncle of petiole, anterior border and sides of postpetiole and a band across the anterior border of the first gastric segment, red. Tip of gaster and margins of posterior gastric segments narrowly yellowish.

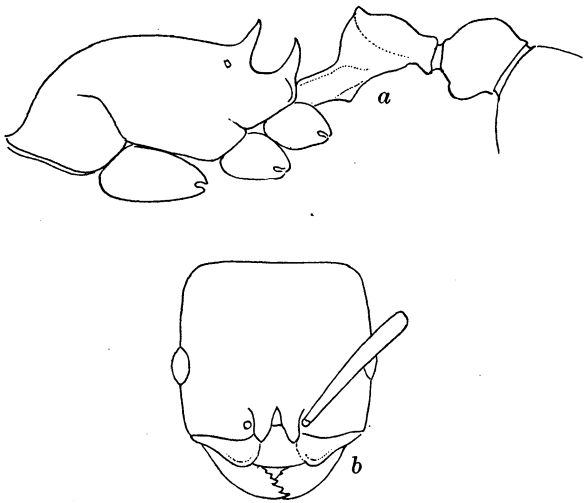

Fig. 10. *Pogonomyrmex* (*Ephebomyrmex*) *saucius* sp. nov. Worker. a, profile of thorax and pedicel; b, head from above.

Male. Length 4–4.5 mm.

Head slightly longer than broad, with large eyes and ocelli, narrowest through the cheeks, which are straight, rounded and broader behind the eyes. Mandibles like those of the worker but smaller. Clypeus convex, without lateral tooth-like projections. Antennal scapes scarcely four times as long as broad, somewhat curved and dilated at the base; first funicular joint a little longer than broad, second as long as the scape, joints 3–9 subequal, a little more than twice as long as broad; joints 10 and 11 shorter, terminal joint nearly as long as the two preceding together. Thorax robust, through the wing insertions as broad as the head. Mesonotum with well-marked Mayrian furrows, convex in front, flattened behind; epinotum and metasterna unarmed, the former rounded without distinct base and declivity. Petiole long; its node rounded in profile, constricted behind; its peduncle with a distinct ventral tooth. Postpetiole similar to that of the worker. Fore wing with a discal and two cubital cells.

. Head, thorax and petiole opaque, finely and densely punctate, head and thorax also longitudinally rugulose above and on the sides of the epinotum. Mandibles, postpetiole and gaster shining, the mandibles coarsely and sparsely punctate and at the base finely striate. Legs rather shining, finely shagreened.

Pilosity similar to that of the worker.

Black; tips of mandibles, funiculi tibiæ, tarsi, bases and tips of femora, red; genitalia brown. Wings grayish hyaline, with brown veins and stigma.

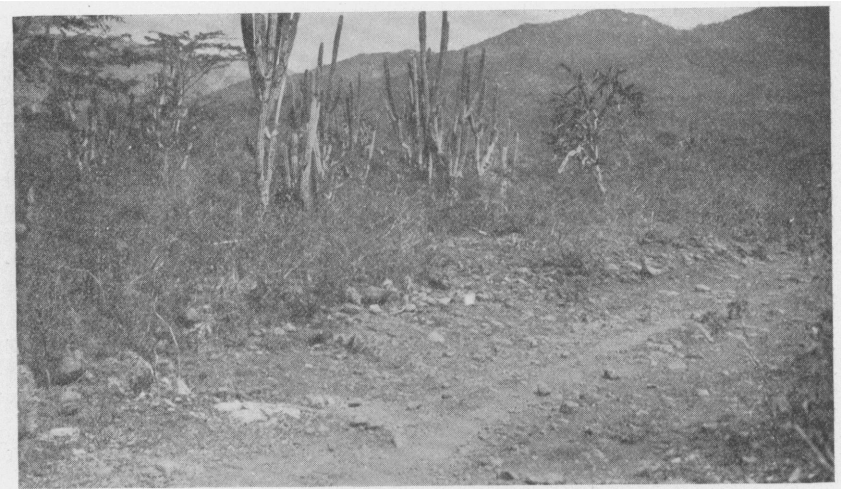

Fig. 11. Desert at Manneville showing nesting site of *Pogonomyrmex (Ephebomyrmex) saucius* sp. nov. beneath stones in left foreground.

Described from numerous workers and two males taken from a couple of colonies nesting in the ground beneath stones along the very arid trail leading from Manneville to the Dominican border, about half a mile from the former place. Each of the nests contained a little heap of stored grain. The species is apparently restricted to this arid region, and no doubt ranges over the territory about Lake Assuei. It is a more timid ant than *P. schmitti*, from which species it is readily distinguished in the worker phase by its larger size, the different and more regular sculpture of the thorax, the tooth-like projections on the clypeus and the peculiar coloration.

46. **Macromischa sallei** (*Guérin.*)

Myrmica sallei Guérin, Rev. Mag. Zool. Pure et Appliq. (2), IV, 1852, p. 76, pl. iii, figs. 2–4, ☿ ♀ ♂.

Macromischa sallei Forel, Biol. Central. Amer., 1899–1900, p. 57, *nota*, ☿ ; Bull. Soc. Ent. Suisse, X, 1, p. 272.

Worker. Length about 5 mm.

Head subrectangular, a little longer than broad, with feebly convex sides, nearly straight posterior border, rounded posterior corners and convex eyes at the middle of the sides. Mandibles rather convex, with 4 or 5 subequal teeth. Antennæ slender, their scapes reaching somewhat beyond the posterior corners of the head; funicular joints all longer than broad, the three terminal ones largest and forming a club. Thorax longer than the head, including the mandibles, and narrower, broadest through the pronotum, which is somewhat flattened above and on the sides and separated from the mesonotum by a distinct suture and shallow constriction both dorsally and laterally Meso- and epinotum not separated by a constriction or suture, nearly as broad as the pronotum, longer than broad, with feebly convex lateral and dorsal surfaces. Epinotum bearing two straight spines, which are nearly as long as the dorsal surface of the meso- and epinotum, stout and close together at the base but rapidly tapering to acute tips, directed backward, rather strongly outward and slightly upward. Petiole nearly three times as long as broad, with a slender peduncle making up the anterior $\frac{2}{3}$ of its length and at the posterior third with an abrupt, rounded, slightly transverse node, which is much higher than the postpetiole. This is about half again as broad as the petiolar node, campanulate and somewhat narrower in front than behind. Gaster small, elliptical with a well-developed sting. Legs long; femora slender at the base, strongly incrassated just beyond the middle; tibiæ clavate, without spurs.

Head and thorax opaque; petiole, postpetiole and gaster shining. Head finely longitudinally rugose and punctate; thorax also longitudinally rugose, more coarsely and irregularly on its dorsal than on its pleural surface. Legs shining, sparsely punctate.

Hairs pale, whitish, coarse, long and suberect, covering the body and appendages, including the antennal funiculi.

Color ferruginous red; legs paler; gaster black, except in some specimens which have the base of the first segment ferruginous. Antennal funiculi infuscated.

Female. Length 7 mm.

Resembling the worker in color and sculpture, except that the borders of the ocelli, the scutellum and mesonotum are black and at least the basal third of the first gastric segment is ferruginous. The head is more elongate and elliptical and more rounded behind. Wings pale yellowish, with yellow veins and stigma. There is no discal and only one cubital cell.

Male. Somewhat less than 5 mm.

Head small, rounded behind. Eyes large and prominent. Mandibles small, pointed, less convex than in the worker, with finely dentate apical borders Antennæ slender, scapes half as long as the funiculi. Mesonotum with distinct Mayrian furrows. Epinotum unarmed. Petiole and postpetiole similar to those of the female, but the node of the former much lower, subconical and not transverse. Gaster small. Legs long and slender, scarcely incrassated. Venation of wings like that of female.

Color brown, passing into ferruginous on some parts of the body. Antennæ yellowish brown. Wings whitish, with yellow veins and stigma.

All three phases were taken by Auguste Sallé in April 1850 from arboreal nests in a large morass known as the Cienaga del Timbladero, near Rancho Arriba, on the River Nisae, in the heart of San Domingo.

The foregoing rather incomplete description is drawn from Guérin and from a single poorly preserved worker cotype (*ex* Coll. Saussure) presented

by Prof. Forel to the senior author. Guérin gives an excellent figure of the peculiar carton nest (pl. iii, fig. 1), which is very much like that of the following subspecies taken in Haiti.

47. **Macromischa sallei** (*Guérin*) subsp. **haytiana** subsp. nov. (Figs. 12, 13 and 14.)

Worker. Length 3.5–4.5 mm.

Closely resembling *M. sallei* in form, but somewhat smaller and more slender, and with the long epinotal spines less thickened at the base. Mandibles, clypeus

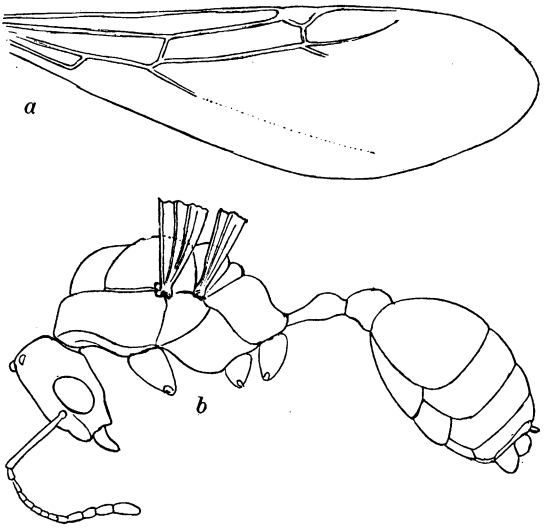

Fig. 12. *Macromischa sallei* (Guérin) subsp. *haytiana* subsp. nov. Male. a, wing; b, body in profile.

and frontal area slightly shining, longitudinally rugose; head opaque, densely and finely longitudinally rugulose-punctate. Thorax coarsely and somewhat vermiculately longitudinally rugose and somewhat shining; epinotal declivity irregularly and transversely rugulose. Petiole and postpetiole rugose on the sides and below, their nodes smooth and shining. Petiolar node fully as long as broad, not transverse. Gaster and legs shining, with sparse piligerous punctures; antennal scapes opaque.

Hairs white, coarse, moderately long and abundant, suberect, covering the body and appendages; pubescence absent.

Mandibles and head yellowish red; cheeks, sides and border of clypeus and borders of mandibles reddish brown. Thorax blackish red or dark purplish brown, pronotum often paler. Petiole, post-petiole, gaster, legs and antennæ black; tarsi beyond the first joint reddish.

Female (deälated). Length 6.5 mm.

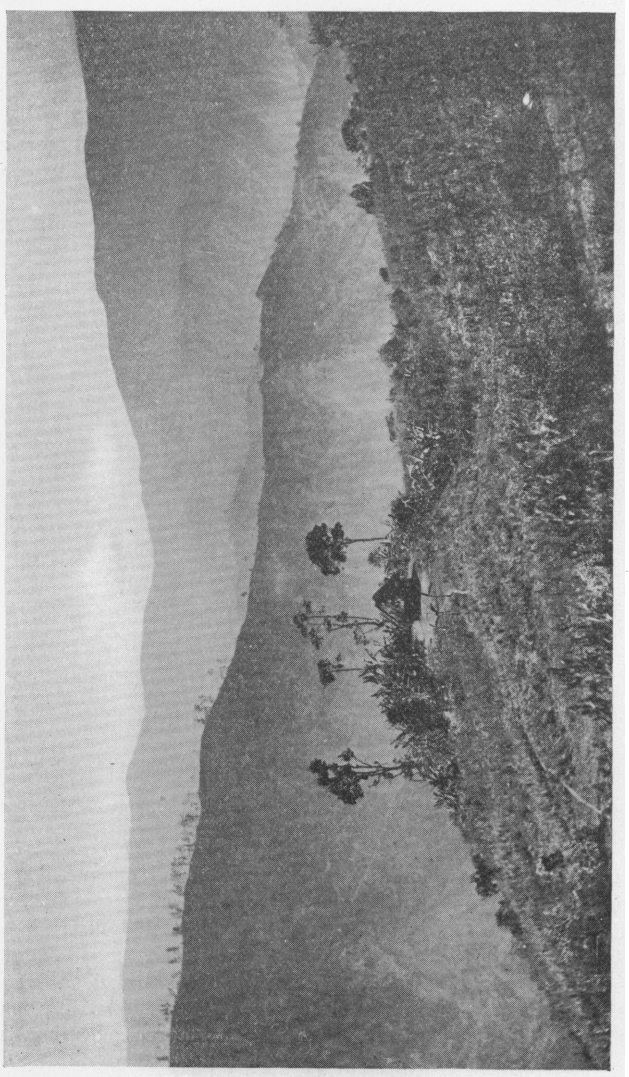

Fig. 13. View at Furcy. Home of *Macromischa sallei* Guérin subsp. *haytiana* subsp. nov.

Closely resembling the worker in form and color. The rugæ on the head are sharper, those on the thorax much finer and more regular, and those on the sides of the petiole and postpetiole more distinct.

Male. Length: 4–4.3 mm.

Mandibles smooth, scarcely shining; head opaque, finely punctate; the clypeus and dorsal surface also longitudinally rugulose. Thorax, petiole and postpetiole subopaque, the surface of the thorax irregularly, that of the epinotum transversely rugose. This portion of the thorax is unarmed, convex and sloping, without distinct base and declivity. Petiole with a very low node. Postpetiole and gaster similar to those of the worker. Legs long and slender, without incrassated femora and tibiæ.

Pilosity similar to that of the worker.

Black; mandibles, antennae and tarsi yellow; clypeus, frontal area and three large spots on the mesonotum red. Femora and tibiæ piceous or black. Wings whitish hyaline, with pale yellow veins and stigma.

Described from numerous workers and males and a single female taken from several carton nests at Furcy in a locality represented in the accompanying figure (Fig. 13). The typical *M. sallei* is described by Guérin as nesting in trees in marshy places, but the subsp. *haytiana* lives on bushes in the mountains in regions which are never flooded. Both forms are extremely abundant in the restricted localities in which they occur and form very populous colonies, unlike most species of *Macromischa.* Along the ridge at Furcy the junior author observed hundreds of nests of *haytiana,* usually built in a peculiar shrub which is the most abundant and typical plant of the region. This shrub, which has very dense, short leaves and extra-nuptial nectaries, has been kindly identified for us by Prof. Robinson of the Gray Herbarium as *Baccharis myrsinites* (Lam.) Pers. The matted foliage produced by the numerous stems and densely leaved branches of this shrub afford the ants shade and concealment. Occasionally nests were also observed in other trees, especially in the smaller pines and among the plants of the small coffee plantations. The nest varies in diameter from about 1 to 6 or 7 inches, and also in shape, though it is always more or less oval or elliptical, at least when fully developed. The smaller nests are built around the stem of the plant, in such a manner as to embrace in their substance the insertions of the branches. At first sight the carton of which these structures consist, resembles that of certain species of *Azteca* and *Crematogaster,* but it seems to consist of finely shredded grass, which is afterwards cemented together and covered with true carton. Additions are made to the nest in this manner and some are often found consisting of carton throughout, excepting an envelope of the fine fibres, which may or may not cover the whole surface. Occasionally one may find a nest consisting of the fibrous material throughout. As none of the latter variety contained larvæ or pupæ, they are probably to be regarded as tents or pavilions erected as shelters over the extrafloral nectaries of the plants.

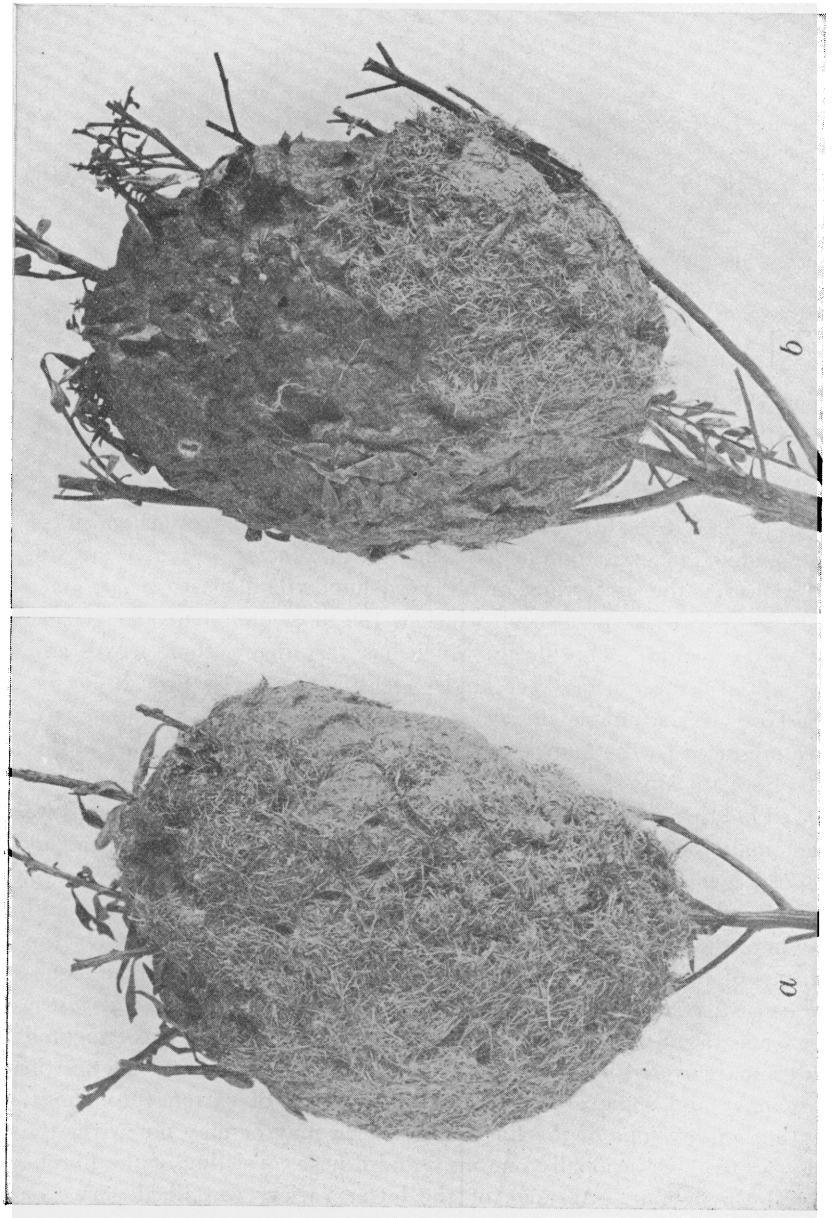

Fig. 14. Nests of *Macromischa sallei* (Guérin) subsp. *haytiana* subsp. nov.

M. haytiana is diurnal in habit. It is evidently omnivorous, as it was seen attending Aphids and Membracids and the nectaries of the plants, and as its nests contained pieces of insects, mostly Orthoptera, and some objects which seemed to be plant seeds. In one nest a living Membracid nymph was found. The workers are pugnacious and sting severely. When the nest is disturbed they rush forth and scatter over all parts of the bush, and while moving about carry the gaster bent down beneath the thorax with the sting directed forward, a habit which is permitted by the great length of the petiole. This same habit has also been observed by the senior author in some of the other species of the genus (*M. splendens* Wheeler of the Bahamas and *M. isabellæ* Wheeler of Porto Rico).

48. **Macromischa flavidula** sp. nov. (Fig. 15.)

Worker. Length 1.5–1.7 mm.

Head somewhat longer than broad, as broad in front as behind, with evenly convex sides, nearly straight posterior border, rounded posterior corners and the moderately convex eyes at the middle of the sides. Mandibles with rather straight external and finely denticulate apical borders. Clypeus convex, with broadly rounded anterior border. Frontal carinæ subparallel; frontal area indistinct. Antennal scapes reaching to the posterior border of the head; club of funiculus large, 3-jointed; remaining joints, except the first, small, broader than long. Thorax short, about as long as the head with the mandibles, a little broader in front than behind, in profile with evenly rounded, convex dorsum, without any traces of promesonotal or mesoëpinotal sutures; humeri rounded, epinotum sloping, without distinct base and declivity, bearing two spines which are longer than the declivity and much longer than their distance apart, curved downward and directed backward and outward. Petiole with a short, slender peduncle, bearing a small, acute tooth on its ventral surface, and a node which is longer than broad, with its anterior declivity in profile sloping and slightly concave, its summit slightly flattened and its posterior declivity very short and convex. Postpetiole large, broader than long, three times as broad as the petiole behind, in profile rounded and convex above. Gaster small, at the base only a little broader than the postpetiole. Legs rather short; femora slightly incrassated.

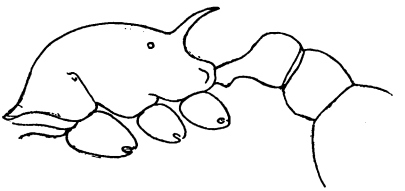

Fig. 15. *Macromischa flavidula* sp. nov. Profile of thorax and pedicel of worker.

Whole surface of body very smooth and shining.

Hairs white, blunt, short, scattered and erect on the body, very minute and appressed on the scapes and legs.

Yellow; mandibles, antennæ, epinotal spines, legs and venter paler and more whitish.

Female (deälated). Length: 3.3 mm.

Differing from the worker in the following characters: The head is subcircular, not longer than broad, with more convex sides. The epinotal spines are shorter and stouter and not curved, the upper surface of the mesonotum is flattened and the gaster is large and elongate elliptical, the postpetiole even broader in proportion to its length. The wing insertions, a spot on the scutellum, a broad band across the first gastric segment and a much narrower band near the posterior border of each of the following segments are brown.

Described from three workers and a female taken from a single nest in the ground under a stone at Manneville. This is the smallest known species of *Macromischa* and differs also from the other members of the genus in color and sculpture, though it is morphologically closely related to a group of small species embracing *M. subditiva* Wheeler of Texas, *albispina* Wheeler of Culebra Island and *lævissima* Wheeler of Mexico.

49. **Tetramorium guineense** *Fabricius.*

Formica guineensis FABRICIUS, Ent. Syst., II, 1793, p. 357, ☿ .

Several workers and females from Diquini, Grande Rivière, Manneville, Momance and Ennery. This tropicopolitan ant must have been introduced into the island more than 60 years ago, as it is cited from San Domingo by Guérin (Rev. Mag. Zool. (2) 1852, p. 79).

50. **Tetramorium (Tetrogmus) simillimum** *F. Smith.*

Myrmica simillima F. SMITH, List Brit. Anim. Brit. Mus., VI, 1851, p. 118, ☿ .

Numerous workers and females from Diquini, the mountains north of Jacmel, Manneville and Grande Rivière. Like the preceding this is a well-known tramp species which originated in the Old World tropics.

51. **Wasmannia auropunctata** *Roger.*

Tetramorium ? *auropunctatum* ROGER, Berl. Ent. Zeitschr., VII, 1863, p. 182, ☿ ♀ ♂.

Numerous workers and deälated females from Diquini, Milot, Ennery, Grande Rivière, Petionville, and the mountains north of Jacmel. This species is widely distributed through the West Indies, Mexico and Central America.

52. **Cryptocerus hæmorrhoidalis** *Latreille.* (Fig. 16.)

LATREILLE, Hist. nat. Fourm., 1802, p. 276, ☿ .

Cryptocerus hamulus ROGER, Berl. Ent. Zeitschr., VII, 1863, p. 209, ☿ .

Cryptocerus hamulus ROGER var. *haytianus* FOREL, Ann. Soc., Ent. Belg., XLV, 1901, p. 337, ☿ .

Comparison of the descriptions of Latreille, Roger and Forel and a cotype of the var. *haytianus* received from Rev. P. J. Schmitt with a large series of workers taken by the junior author from several colonies at Port au Prince, Manneville, Diquini, Ennery and in the mountains north of Jacmel, shows that Roger's and Forel's forms are in all probability merely synonymous with Latreille's. Latreille's specimen came from San Domingo and had the anal region red like the sides of the head, but this is true also to some extent of our specimens and of the cotype *haytianus*, and, we believe, represents merely a sporadic variation the occurrence of which is rendered probable by the peculiar color of the male (*vide infra*). Roger's specimens also came from San Domingo. Forel believes that his variety certainly differs from *hamulus* in the shape of the spines on the petiole and the rugæ of the occiput, but our series shows that the small spines on the petiole are variable and may be either present or absent in individuals from the same colony, and Roger describes the occiput as coarsely longitudinally rugose ("die Hinterseite des Kopfes gröber längsrunzelig").

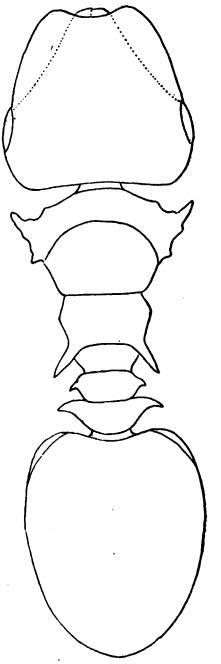

Fig. 16. *Cryptocerus hæmorrhoidalis* Latreille. Worker from above.

A single male specimen from Port au Prince is peculiar in coloration. It has the head, thorax, petiole and postpetiole black; the tips of the mandibles, palpi, legs, antennal scapes and gaster fulvous, the funiculi brown. The wings are blackish, with dark brown veins and stigma. The body is subopaque, except the gaster, which is feebly shining. The hairs are fulvous and erect, abundant and conspicuous on the head and thorax, much sparser and appressed on the gaster and legs.

Although many colonies of this ant were seen in Haiti, only one type of worker was found in them. This fact and the singular conformation of the body of the worker show a marked resemblance to the species of the genus *Procryptocerus*. The nests are usually in hollow twigs, but at Port au Prince several colonies were found nesting in fence-posts.

53. **Cryptocerus varians** *F. Smith* subsp. **marginatus** subsp. nov. (Fig. 17.)

Soldier. Differing from the typical form from Florida, Cuba and the Bahamas

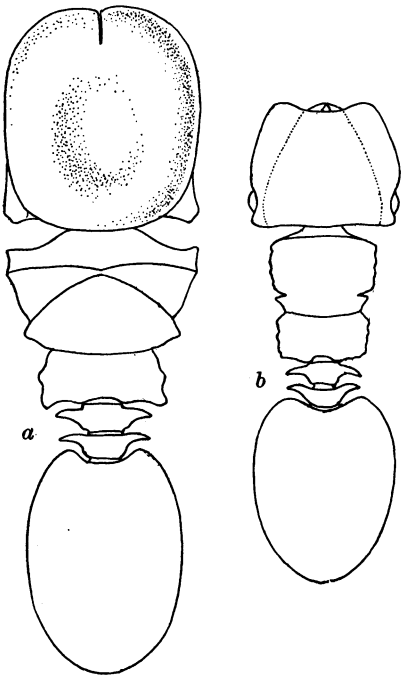

Fig. 17. *Cryptocerus varians* F. Smith subsp. *marginatus* subsp. nov. a, soldier, dorsal view; b, worker, dorsal view.

in having the spines on the petiole and postpetiole distinctly longer, the large spines on the epinotum stouter, blunter and less compressed, and the color of the body and legs darker and more blackish.

Worker. Differing from the typical *varians* in having the thorax broader, with flatter and more regular border on each side, the spines of the petiole and postpetiole much longer and flatter and the color darker as in the soldier.

Female (deälated). Color darker than in the female of the typical form, the whole body being black, with only a faint reddish tinge to the legs, thorax and pedicel.

Described from numerous soldiers and workers and a single female from Diquini, St. Marc, Petionville and Manneville. The colonies were nesting in hollow twigs on the estate at Diquini, frequently also in bamboo.

54. **Strumigenys alberti** *Forel.*

Trans. Ent. Soc. London, 1893, p. 380, ☿ ♀.

Several workers and a deälated female from Manneville, Ennery, Grande Rivière, Petionville, Diquini and the mountains north of Jacmel, agree very closely with the typical form of this species from St. Vincent.

55. **Strumigenys rogeri** *Emery.*

Pyramica gundlachi Roger, Berl. Ent. Zeitschr., 1862, VI, p. 253, ♀ (*nec* ☿).
Strumigenys rogeri Emery, Bull. Soc. Ent. Ital., 1890, XXII, p. 31, pl. 7, fig. 6, ☿.

Six workers and a deälated female from the mountains north of Jacmel. This species occurs also in St. Thomas, Cuba and Porto Rico.

56. **Strumigenys unispinulosa** *Emery.*

Bull. Soc. Ent. Ital., XXII, 1890, p. 31, pl. 7, fig. 5, ☿ ♀.

Several workers and deälated females from Cape Haitien, Grande Rivière and Diquini. This species was originally described from Alajuela, Costa Rica.

57. **Atta (Trachymyrmex) jamaicensis** *Ern. André.*

Rev. d'Entomol., 1893, p. 149, ♀.

Numerous workers, three males and a single female from St. Marc, Diquini, Manneville and Port au Prince agreeing in all respects with specimens from Jamaica, the Bahamas and Culebra Island. This ant forms rather large colonies. At Manneville it was found nesting in dry, sandy soil on the plain near Lake Assuei. Here the insects had thrown up broad, low craters about the nest entrances. In other localities the nests were in more humid situations. In all cases, however, they were in the shade. The ants collect small pieces of leaves, buds and other vegetable substances as a substratum for the fungus which they cultivate, as has been shown by the senior author in a former paper (The Fungus Growing Ants of North America. Bull. Amer. Mus. Nat. Hist., XXII, 1907, p. 760). The workers are diurnal but seem to prefer the late afternoon for foraging.

58. **Atta (Trachymyrmex) jamaicensis** *Ern. André* subsp. **haytiana** subsp. nov. (Fig. 18.)

Worker. Length: 3.5–4 mm.

Differing from the typical form in having the anterior spines or tubercles on the posterior corners of the head shorter, in having a well-developed, pointed median

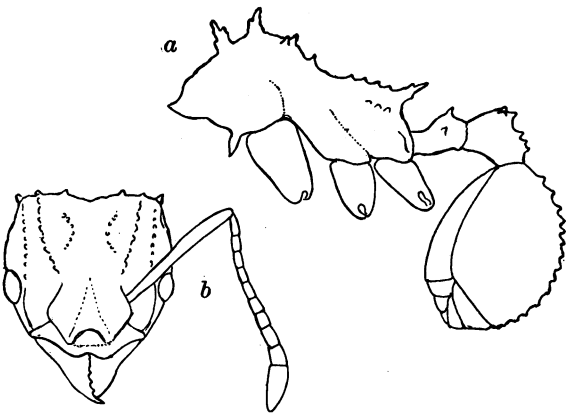

Fig. 18. *Atta (Trachymyrmex) jamaicensis* Ern. André subsp. *haytiana* subsp. nov. Worker. a, profile of body; b, head from above.

tubercle on the pronotum and in coloration, the body being entirely black, with the exception of the mandibles, funiculi, articulations of the legs and tarsi beyond the first joint, which are red.

Described from several workers taken from a single colony in a canyon near Petionville. The nest entrance opened directly on the surface of the ground and was not surrounded by a crater.

59. **Mycocepurus smithi** *Forel.*

Forel, Trans. Ent. Soc. London, 1893, pp. 370–372, ☿ .

Several workers of the typical form of this species, first described from St. Vincent, were taken at Cape Haitien and Diquini. The nests in the latter locality were in the form of small craters and were located in clay soil in a moist spot in a gully formed by a small stream. Several colonies were nesting in an area about 25 ft. square, but in no other place in the neighborhood. At Cape Haitien only a single colony was found and this was nesting in a road leading across the mountains and nearly at the summit.

60. **Cyphomyrmex rimosus** *Spinola* var. **minutus** *Mayr.*

Cyphomyrmex minutus MAYR, Verh. Zool. bot. Gesell. Wien, XII, 1862, p. 691, ☿ .

A large number of specimens of all three phases of this widely distributed form were taken at Momance, Diquini, Petionville, Ennery, Grande Rivière, Manneville, St. Marc and in the mountains north of Jacmel. These specimens vary considerably in color but this is probably due, in part at least, to age.

SUBFAMILY DOLICHODERINÆ.

61. **Dorymyrmex pyramicus** *Roger* var. **niger** *Pergande.*

Proc. Cala. Acad. Sci., 1895, ser. 2, V, p. 871, ☿ .

Several workers and females from Diquini and Manneville. This dark variety seems to be the most abundant form of the widely distributed *pyramicus* occurring in the West Indies.

62. **Iridomyrmex keiteli** *Forel.*

Mitth. Naturh. Mus. Hamb., XXIV, 1907, 2. Beiheft, p. 8, ☿ ♀.

The worker of this species, which was described from specimens collected in Haiti by G. Keitel, is readily distinguished from *I. melleus* Wheeler of Porto Rico, *I. humilis* Mayr and the allied *iniquus* Mayr by its much broader and more cordate head, shorter antennal scapes, stouter thorax, shorter and less constricted mesoëpinotal region, and more erect petiolar node. The female is described as having a vertical and much broader petiolar node. The typical form of this species was not seen by the junior author in Haiti, but he encountered the two following undescribed varieties instead:

63. **Iridomyrmex keiteli** *Forel.* var. **flavescens** var. nov.

Worker. Length 2–2.3 mm.

Differing from the typical *keiteli* in its slightly larger size and in coloration, the whole body being clear yellow, except the mandibular teeth, which are black, and the occipital impression of the head, which is very feebly infuscated.

Described from several specimens taken from a nest under a stone on a dry hill-side at Cape Haitien. This variety must closely resemble *I. melleus* Wheeler subsp. *succineus* Forel from Brazil, but the latter form is decidedly larger (2.6–2.9 mm.). Judging from Forel's description it, too, would seem to belong to *keiteli* rather than to *melleus*.

64. **Iridomyrmex keiteli** *Forel* var. **subfasciatus** var. nov.

Worker. Length 2–2.3 mm.

Differing from the two preceding forms in coloration. The head, thorax, petiole and middle portions of the femora are dark brown, with the mandibles, sides of clypeus, scapes, tibiæ and tarsi yellow; the gaster yellow, with a broad, brown, transverse band on the dorsal surface of each segment. The funiculi are also brownish.

Described from several workers taken at Diquini, Petionville and in the mountains north of Jacmel.

65. **Tapinoma melanocephalum** (*Fabricius.*)

Formica melanocephala Fabr., Ent. Syst., II, 1793, p. 353, ☿ .

Three workers from Manneville.

66. **Tapinoma opacum** sp. nov.

Worker. Length 2–2.5 mm.

Head distinctly longer than broad, a little broader behind than in front, rounded behind, with feebly convex sides and rather large, flattened eyes, placed just in front of the median transverse diameter of the head. Mandibles with numerous minute teeth, the apical ones longer and acute. Clypeus moderately large and convex, with rounded, entire anterior border. Frontal area indistinct, triangular. Frontal groove obsolete. Antennæ rather long; scapes reaching fully twice their greatest diameter beyond the posterior margin of the head; second funicular joint broader than long, succeeding joints as long as broad, terminal joint longer. Thorax rather stout; pro- and mesonotum each somewhat broader than long, the meso-epinotal suture slightly but distinctly impressed in profile. Epinotum as long as broad, in profile sloping and rather flat, without distinct base and declivity. Petiole 1½ times as long as broad, broader behind than in front, with a distinct though low scale, which is much inclined forward, narrowed and somewhat pointed anteriorly when seen from above. Gaster and legs as usual, the first segment of the former overlapping the petiole with its base.

Mandibles shining, finely punctate; remainder of body, including the antennæ and legs, opaque, very densely, finely and evenly punctate.

Hairs sparse, whitish, erect, present only on the clypeus, mandibles, prosterna and tip of gaster; pubescence whitish, very short and delicate, covering the whole body and giving it a faint bloom.

Black; legs and antennal funiculi piceous; tips of mandibles, tarsi and mouth-parts, including the palpi, yellow.

Male. Length 2.5 mm.

Resembling the male of *T. sessile* Say, except in its smaller size, sculpture and coloration. Head a little longer than broad; clypeus with straight, entire anterior border. Antennal scapes more slender than in the worker and reaching further beyond the posterior border of the head; funicular joints all distinctly longer than broad. Epinotum similar to that of the worker, but with more distinct base and declivity, the former fully twice as long as the latter. Petiole with a thick, low, erect, rounded node. Genitalia large, the external valves convex, rounded, as broad as long, internal valves much narrower, pointed and more claw-like than in *T. sessile.* Wings without a discoidal cell.

Sculpture like that of the worker, except the gaster, which is shining

Erect hairs even less developed than in the worker, absent on the head and gaster.

Color as in the worker; wings distinctly grayish, with darker gray veins and stigma.

Described from several workers and two males taken at Furcy beneath the bark of a fallen pine. This species is clearly distinct from any of the other described American members of the genus and can be readily recognized in the worker and male phases by its peculiar sculpture. The male is fully as large as the worker, so that it is excluded from the group of species comprising *T. melanocephalum,* Fabr., *litorale* Wheeler, *ramulorum* Emery, etc. and belongs in the group containing *T. erraticum* Latr. and *sessile* Say. The genitalia are also more massive as in these latter species.

Subfamily Camponotinæ.

67. **Brachymyrmex heeri** *Forel.*

Denkschr. schweiz. Ges. Naturw., XXVI, 1874, p. 91, ♀, taf. 1, fig. 17.

Three females, a male and several workers from Manneville belong to the typical yellow form of this well-known species. It was also found to be very common beneath stones, boards etc. on the shores of the salty Lake Assuei.

68. **Prenolepis (Nylanderia) vividula** *Nylander* subsp. **guatemalensis** *Forel* var. **itinerans** *Forel.*

Mitth. Naturh. Mus. Hamb., XVIII, 2. Beiheft, 1901, p. 81, ♀.

Several workers, females and males from Petionville, Manneville and Diquini. The workers agree perfectly with cotypes received from Prof.

Forel. These had been imported into Hamburg with orchids from Brazil. Both the male and female are pale yellow, the latter with a broad, deep brown band across the dorsal surface of each gastric segment and with the surface of the body more opaque and pubescent than that of the worker, as usual in the genus. The wings in both sexes are yellowish hyaline, with pale yellow veins and stigma and not infuscated as described by Forel for the typical *guatemalensis* and its var. *antillana* Forel.

69. **Prenolepis (Nylanderia) steinheili** *Forel.*

Trans. Ent. Soc. London, 1893, p. 342, ☿ .

A few workers from Furcy and Manneville and a winged female from the former locality. This sex, which was not described by Forel, measures 4 mm. and does not, therefore, reach the size (4.4 mm.) which he records for the female of his var. *minuta.* It is dark brown, with yellow appendages, the gaster being darker than the head and thorax and with each of its segments bordered posteriorly with yellow. The wings are grayish hyaline, with pale brownish veins and stigma.

70. **Prenolepis (Nylanderia) fulva** *Mayr.*

Verh. Zool. bot. Gesell. Wien, XII, 1862, p. 698, ☿ ♀ .

Recorded by Forel from Haiti (Mitth. Naturh. Mus. Hamb., XVIII, 1901, 2 Beiheft, p. 65).

71. **Prenolepis (Nylanderia) longicornis** (*Latreille*).

Formica longicornis LATREILLE, Hist. nat. Fourmis, 1802, p. 113, ☿ .

Numerous workers and two deälated females from Diquini, St. Marc, Manneville and Petionville. This introduced species is very widely distributed in Haiti and is especially common on the western shore of Lake Assuei.

72. **Prenolepis (Nylanderia) longicornis** (*Latreille*) var. **hagemanni** *Forel.*

Mitth. Naturh. Mus. Hamb., XVIII, 2 Heft, 1901, p. 65, o; *ibid.*, XXIV, 2 Beiheft, 1907, p. 10, ☿ .

This variety, originally described from the Congo, is recorded by Forel from Port au Prince. It is paler than the typical *longicornis,* the worker being "yellowish red, with the antennæ, palpi and legs whitish, excepting the coxae."

73. **Rhizomyrma parvidens** sp. nov.

Worker. Length 1.8–2 mm.

Head subrectangular, a little broader than long, as broad in front as behind, with straight sides and a slight angular excision in the middle of the posterior border. Eyes minute, consisting of about 4 small ommatidia, situated at the anterior third of the head. Mandibles oblique but with distinct basal and apical borders, the latter with 4 small subequal teeth, much smaller than in any of the known species of the genus. Clypeus short and convex, with the anterior border entire, straight and transverse in the middle. Frontal area distinct, triangular; frontal and occipital grooves distinct. Antennæ 10-jointed; scapes reaching to the posterior corners of the head; first funicular joint longer than broad, second joint small, as long as broad; joints 3–5 much broader than long, joints 7–8 as long as broad, terminal joint as long as the 3 preceding joints together. Thorax shaped much as in *Rh. goeldii* Forel, but shorter and stouter, at least behind, where it is as broad as in front; seen from above the sides are rather concave in the middle; pronotum much broader than long, with less convex humeri than in *goeldii*, mesonotum not longer than broad, as it is in *goeldii*, fitting into the semicircular excavation of the posterior portion of the pronotum, convex and rising above the latter in profile, abruptly sloping behind to the mesoëpinotal constriction which is pronounced but very short Epinotum distinctly broader than long, in profile lower than the mesonotum, with rather straight base and declivity meeting at a rounded, obtuse angle, the base distinctly longer than the declivity. Petiole with an erect, well-developed scale, which is a little more than half as broad as the epinotum, but not as high, compressed anteroposteriorly, with flattened anterior and posterior surfaces and rather blunt, entire, broadly rounded superior border. Gaster rather large, elliptical. Legs stout.

Body shining, finely shagreened and sparsely punctate. Mandibles and clypeus somewhat more opaque.

Hairs and pubsecence whitish or pale yellow, the former rather long, unequal, erect and confined to the body, the latter rather dense and short, covering both body and appendages, but not obscuring the shining surface.

Pale brownish yellow throughout; legs and antennæ a little paler, head in some specimens a little darker, only the eyes and mandibular teeth brown.

Described from three workers, two taken at Petionville and one at Diquini. This species may be the worker of *Rh. smithi* Forel, which is known only from the female taken in St. Vincent. The worker is certainly very different from *Rh. goeldii* Forel of Brazil and *exsanguis* Wheeler of Mexico in the structure of the mandibles and thorax. Moreover the integument is not thin and collapsible as in *exsanguis*, the eyes are somewhat larger and the second funicular joint is longer. The worker *goeldii* has 11-jointed antennæ (at least this is the number in a cotype received from Prof. Forel) and the second funicular joint is decidedly transverse. The mandibles of *Rh. parvidens* are much like those of *Rh. decedens* Mayr of South America but the median funicular joints are much shorter and broader. *Rh. pachycerus* Emery of Alto Paraná has 9-jointed antennæ, the scapes do not reach

the posterior corners of the head and the apical borders of the mandibles are very oblique. The worker of this species measures 2.2 mm. and is therefore larger than *parvidens*.

74. **Rhizomyrma dubitata** sp. nov.

Male. Length 2 mm.

Very similar to the male of *Acropyga*. Head a little broader than long, subrectangular. Eyes rather small, less than half as long as the sides of the head. Mandibles slender, distinctly tridentate. Clypeus convex and almost carinate in the middle, with entire, rounded anterior border. Antennæ with long scapes, which reach well beyond the posterior corners of the head; first funicular joint globular, as broad as long, joints 2–7 a little broader than long, remaining joints longer. Thorax robust but not much broader than the head through the eyes. Mesonotum convex in front, slightly overarching the pronotum; scutellum not convex; epinotum rounded, sloping, without distinct base and declivity. Petiole with erect node, which is rather thick though compressed anteroposteriorly, with a blunt, rounded, entire border. Its anterior face in profile is slightly convex, its posterior face more flattened. Gaster rather short and stout; external genital valves large, with broad, bluntly bidentate tips; inner valves shorter, unciform. Wings rather large, like those of *Acropyga* with one cubital cell, no discoidal cell and the radial cell closed.

Body shining throughout and very finely shagreened.

Hairs pale, erect, absent on the thorax and anterodorsal portion of the gaster, conspicuous on the petiole, venter and genitalia. Pubescence whitish, fine and rather dense, but not concealing the shining surface.

Yellow throughout; appendages scarcely paler; only the ocellar triangle blackish or fuscous. In some specimens the body is very slightly tinged with brown. Wings yellowish gray, with colorless veins and stlgma.

Described from numerous specimens taken by Mr. Aug. Busck in the San Francisco Mts. of San Domingo. This may be the male of the preceding species or of *Rh. smithi* Forel, but as it was not taken with workers and as it is the first male of the genus to be recorded, we deem it advisable to describe it under a new name. Specimens of *Rhizomyrma* are rare in collections. The species, as shown by their pale yellow color and the vestigial eyes of the workers, are evidently hypogæic and attend root-coccids like the species of *Brachymyrmex* and *Acanthomyops*. At least these are the habits observed in one of the South American species (*Rh. goeldii*).

75. **Camponotus maculatus** *Fabricius* subsp. **plombyi** subsp. nov. (Fig. 19.)

Worker major. Length 10–11.5 mm.

Head moderately large, longer than broad, somewhat broader behind than in front (3.5 mm. long, 3 mm. broad), with slightly excavated posterior border, rather angular posterior corners and feebly and uniformly convex sides. Mandibles long, 7-

toothed. Lobe of clypeus short, slightly projecting on the middle, angular on the sides. Antennal scapes extending fully one third their length beyond the posterior corners of the head. Thorax long, slender and low; pronotum more than half as broad as the head; base of the epinotum about twice as long as the declivity, the angle between the two rounded and indistinct. Petiole small, its anterior surface convex, its posterior surface flattened, its border rather sharp. Hind femora not compressed, without a row of graduated bristles on the flexor surfaces of the tibiæ.

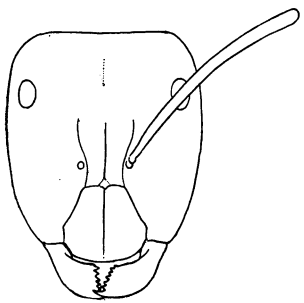

Fig. 19. *Camponotus maculatus* Fabricius subsp. *plombyi* subsp. nov. Head of worker major from above.

Shining and finely shagreened; mandibles, clypeus and head coarsely and rather sparsely punctate, the punctures becoming smaller and more scattered on the posterior portion of the head. Scapes opaque. Thorax and gaster with scattered piligerous punctures; scapes and legs with more numerous punctures.

Hairs fulvous, rather coarse, erect, not only on the body, but also on the scapes, short on the latter, the mandibles, cheeks, clypeus and upper surface of the head, long and more abundant on the thorax, petiolar border and gaster, very short and suboblique on the legs.

Black; mandibles, except their teeth, anterior half of clypeus, funiculi, tibiæ, knees and tarsi, dark red; gastric segments narrowly margined behind with sordid yellow.

Worker minor. Length 8–9 mm.

Head somewhat less than twice as long as broad, a little broader in front than behind, with straight sides, rounded posteriorly, the occipital border being short and feebly concave. Mandibles and clypeus similar to those of the worker major. Antennæ slender; scapes extending one half their length beyond the posterior border of the head. Thorax and gaster slender; base of epinotum very feebly concave in profile. Petiolar node thicker and blunter than in the worker major. Sculpture, pilosity and color much as in that phase, but the punctuation of the head much feebler. Legs somewhat paler in some specimens, the femora and coxæ being dark brown or reddish.

Described from a number of specimens taken in the mountains at Furcy, living in crater nests in the ground. This subspecies which is dedicated to the genial Abbé Plomby, closely resembles the subsp. *dominicensis* Wheeler from the island of Dominica in sculpture, pilosity and form, but the color is very different, the head of the major worker is decidedly shorter and the anterior border of the clypeus projects somewhat in the middle, where it is very feebly and sinuately notched.

76. **Camponotus maculatus** *Fabr.* subsp. **haytianus** subsp. nov. (Fig. 20.)

Worker major. Length: 11–12 mm.

Head large, subtriangular, a little longer than broad (4.3 mm. long, 4 mm. broad), much narrower in front than behind, with broadly and rather deeply excised posterior

border, prominent posterior corners, and rather straight sides. Mandibles long, convex at their tips, 8-toothed. Clypeal lobe rather long, its median border transverse, straight or very feebly sinuate its corners blunt and rounded. Antennæ slender, their scapes curved and extending less than one third their length beyond the posterior corners of the head. Thorax rather slender, and low, through the pronotum about one half as broad as the head. Epinotum long, base in profile straight or very feebly convex, about twice as long as the declivity into which it passes through a rounded, obtuse angle. Petiolar node in profile cuneate, thick at the base, rather pointed at the summit, with very feebly convex anterior and posterior surfaces; seen from behind its margin is rounded and bluntly pointed in the middle. Posterior tibiæ not compressed and not bearing a row of graduated bristles on their flexor surfaces.

Shining and very finely shagreened; mandibles opaque and finely granular at the base, with only a few scattered, coarse punctures along the dental border. Cheeks, clypeus and front without coarse punctures and the piligerous punctures

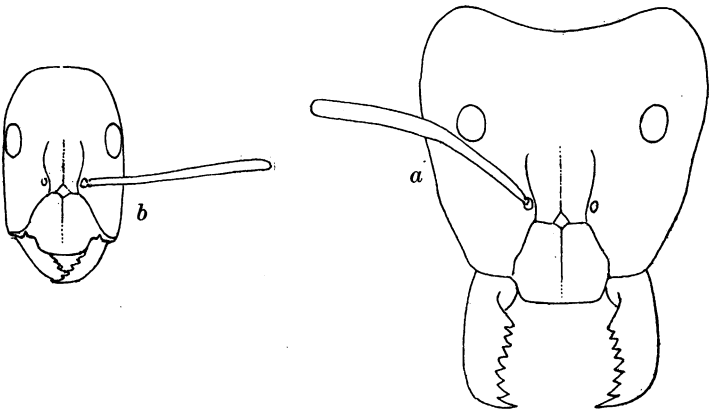

Fig. 20. *Camponotus maculatus* Fabr. subsp. *haytianus* subsp. nov. a, head of worker major from above; b, head of worker minor from above.

covering these and other portions of the body very small and sparse. Meso- and epinotum subopaque.

Hairs yellow, erect, sparse; long on the body, shorter but very conspicuous on the scapes and tibiæ; those on the mandibles very short; cheeks altogether without hairs.

Head dark blackish brown; mandibles, antennæ, clypeus and front dark red; thorax and gaster yellow, the mesonotum and in some specimens also the pronotum and epinotum, but to a less extent, infuscated. Each gastric segment with a broad, not very sharply defined, brown band across its posterior half; tibiæ and tarsi slightly reddish.

Worker minor. Length 7–9 mm.

Head a little more than 1½ times as long as broad, very slightly broader in front than behind, with straight sides and the postocular portion rather short and semicircular behind, with short, concave occipital border. Antennæ very slender, their scapes reaching about one half their length beyond the posterior corners of the head. Thorax and petiole similar to those of the worker major.

In sculpture, pilosity and color similar to the worker major, but the mandibles, clypeus, cheeks and front more yellowish.

Described from numerous specimens taken from nests in the soil at Diquini and Port au Prince. This is a very interesting subspecies, easily distinguished from our other North American forms of *maculatus* by the large, triangular head of the worker major. In this character it closely resembles many of the Old World subspecies.

77. **Camponotus maculatus** *Fabr.* subsp. **fraterculus** subsp. nov. (Fig. 21.)

Worker major. Length 8–9 mm.

Differing from the preceding subspecies in its smaller size, more coarsely shagreened surface, in having the short hairs covering the dorsal surface of the head and the cheeks more numerous and the surface more punctate. The antennal scapes bear very few erect hairs and those on the tibiæ are shorter, less abundant and much more appressed. The head is brown, with the posterior corners, posterior border and clypeus, except its borders, brownish yellow; cheeks and vertex darker brown or blackish. Pro-, meso-, and epinotum each with a large brown or blackish patch above, that on the pronotum enclosing two elliptical yellow spots. The transverse bands on the gaster are darker and more sharply defined than in *haytianus*. The antennal scapes are dark brown, the funiculi brownish yellow.

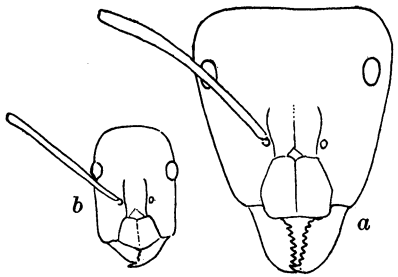

Fig. 21. *Camponotus maculatus* Fabr. subsp. *fraterculus* subsp. nov. a, head of worker major from above; b, head of worker minor from above.

Worker minor. Length 5–6.5 mm.

Yellow nearly throughout, the vertex of the head in some specimens slightly infuscated. Legs and scapes with very fine, dense, appressed pubescence; scapes also with a few scattered, erect hairs.

Described from numerous specimens taken at Furcy where they were nesting in the same stations and in the same manner as the specimens of the subspecies *plombyi* described above.

78. **Camponotus maculatus** *Fabr.* subsp. **soulouquei** *Forel.*

Forel, Mitth. Naturh. Mus. Hamb., XVIII, 1901, 2. Beih. p. 68, ♀.

Worker major (after Forel). Length 6.8 mm.

Similar to *C. ustus* Forel in external appearance, but the head much shorter, more triangular, broader behind, narrower in front, less shining. On the other hand,

very close to the subsp. *toltecus* Forel, but somewhat smaller, with somewhat more vivid coloration and with distinct, more abundant, short, yellowish, suberect hairs on the antennal scapes, and on the flexor surfaces of the tibiæ with oblique hairs, which are lacking in the subsp. *toltecus*. Scapes brownish red (brownish black in *toltecus*). The cheeks are hairy in both subspecies. In *C. soulouquei* the epinotal declivity is more distinctly marked off from the base. The clypeal lobe is also less distinct, more trapezoidal The head is yellowish behind and below, above and in front brownish or reddish, the mandibles slightly shining, very finely reticulate and sparsely punctate (rather shining in the subsp. *toltecus*).

Female. Length 11.2 mm. The gaster has a dark brown transverse band on each segment. In other respects like the major worker. Legs yellow, tarsi, especially on the posterior legs, darker. Wings yellowish, with pale veins and stigma.

Gonaives, Haiti, May 10, 1894 (H. Nepperschmidt).

We are unable to recognize this subspecies among the material collected by the junior author.

79. **Camponotus fumidus** *Roger* var. **illitus** var. nov. (Fig. 22.)

C. fumidus var. EMERY, Zool. Jahrb. Abth. f. Syst., VII, 1893, p. 670, ♀.

C. fumidus DALLA TORRE, Catalog. Hymen., VII, 1893, p. 232.

Worker major. Length 8–9 mm.

Closely resembling *C. fumidus* var. *festinatus* Buckley of Texas, except in the following particulars: The antennal scapes are somewhat shorter and are covered with abundant, short, suberect hairs and the hairs covering the upper surface of the head, thorax and gaster are also more abundant. The scapes are red instead of

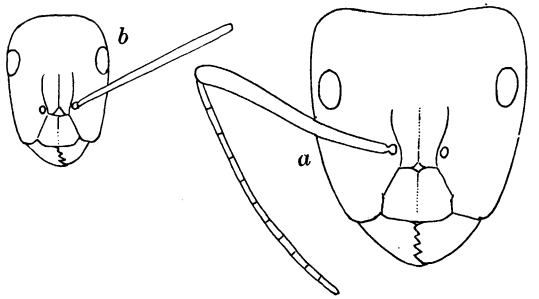

Fig. 22. *Camponotus fumidus* Roger var. *illitus* var. nov. a, head of worker major from above; b, head of worker minor from above.

black, and the tibiæ and tarsi are darker. The head is brownish yellow, the vertex with an elongate, well-defined, dark brown spot, which sends off a dark line to each eye. In some specimens the cheeks, too, are brown or reddish.

Worker minor. Length 6–7 mm.

Head distinctly shorter than in *festinatus* and distinctly narrowed in front, whereas in the Texan form the head is as broad in front as behind. Antennal scapes pilose as in the worker major and the hairs on the body somewhat more abundant than in *festinatus*. Whole body yellow, except the mandibles and edge of clypeus, which are red.

Described from several specimens taken from nests in the ground at Port au Prince, Diquini and Grande Rivière. There seems to be little doubt that this is the form regarded by Emery as a variety of *fumidus*. The true *fumidus*, originally described from Venezuela, has not since been observed, so that the Texan and Haitian forms have, perhaps, only a provisional status as varieties.

80. **Camponotus fumidus** *Roger* var. **imbecillus** var. nov.

Worker major.

Allied to *C. fumidus* var. *fragilis* Pergande, but differing in the following characters: The head is shaped as in the vars. *illitus* and *festinatus* and is distinctly broader than in *fragilis* and bears on the vertex a dark brown spot which is absent in this variety. The yellow color of the body and especially of the head is darker and more reddish, and the brown bands on the gaster are darker and more sharply defined. The suberect hairs on the antennal scapes are about equally abundant in both varieties, the hairs on the body are more abundant in *imbecillus*.

Worker minor. Indistinguishable from the corresponding phase of *fragilis*.

Described from four major and four minor workers taken at Grande Rivière. These have been compared with cotypes of *fragilis* received from Mr. Pergande by the senior author several years ago.

81. **Camponotus larvigerus** sp. nov. (Fig. 23.)

Worker major. Length 7.5–8.5 mm.

Belonging to the *maculatus* group and related to *C. ramulorum* Wheeler. Head moderately large, as broad as long, considerably broader behind than in front, with broadly excised posterior border and convex sides. Eyes flattened. Mandibles rather short, convex, with 7 subequal teeth. Clypeus sharply carinate, its border

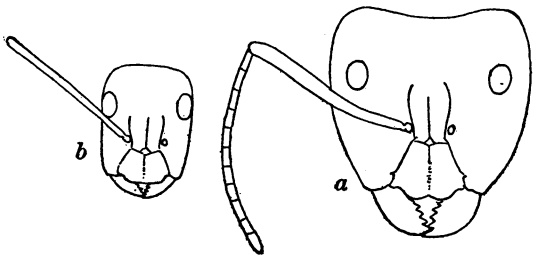

Fig. 23. *Camponotus larvigerus* sp. nov. a, head of worker major from above; b, head of worker minor from above.

very slightly projecting, divided into two short, equal, rounded lobes by a distinct but narrow median notch. Frontal area small, distinct. Frontal carinæ sigmoidal, as closely approximated behind as in front. Vertex with three distinct, pit-like impressions simulating ocelli. Antennal scapes curved, somewhat flattened towards

their tips, extending about one third their length beyond the median posterior border of the head. Thorax through the pronotum nearly two thirds as broad as the head, laterally compressed in the meso- and epinotal regions, in profile evenly arched above; epinotum with distinct base, and declivity, the latter distinctly concave, more than half as long as the base. Petiolar node compressed anteroposteriorly, not thick at the base, as high as the epinotal angle, its anterior surface slightly convex, its posterior surface flattened, its border moderately rounded and entire when seen from behind. Fore femora incrassated; hind tibiæ not compressed, without a row of graduated bristles on their flexor surfaces.

Shining throughout and very finely shagreened. Mandibles, clypeus and dorsal surface of head with small, uniform, shallow punctures.

Hairs yellow, sparse, present on the upper surface of the head, clypeus, thorax, petiole and gaster, absent on the cheeks and sides of the head. Scapes on their anterior surface and at their tips with a few short, erect hairs. Legs without hairs except at the tips of the femora. Pubescence very short and sparse, visible only on the gaster.

Mandibles, clypeus, gula and head dark brown or black; posterior corners and posterior border of head light yellow. Antennal scapes dark red, infuscated distally; funiculi brownish yellow. Thorax, petiole, gaster and femora yellow; mesonotum, upper portion of epinotum and pronotum dark brown, the latter in its dark area with two large, elliptical yellow spots, which are sometimes confluent with the yellow on the pleuræ. Gaster with a well-defined, broad, transverse, dark brown band on each segment. Tibiæ and tarsi reddish.

Worker minor. Length: 5.5–6.5 mm.

Head somewhat more than $1\frac{1}{2}$ times as long as broad, as broad in front as behind, with straight sides and short, rounded postocular region. Clypeus with entire, broadly rounded and rather projecting anterior border. Antennæ slender, scapes not enlarged distally, extending about one half their length beyond the posterior border of the head. Thorax slender, base of epinotum twice as long as the declivity. Petiolar scale less compressed anteroposteriorly than in the major worker, broader at the base and more cuneate in profile.

Sculpture and pilosity much as in the major worker but head impunctate and antennal scapes without erect hairs.

Color yellow, except the mandibles and tarsi, which are red.

Female. Length 9.5–10.5 mm.

Resembling the major worker but the head much narrower, longer than broad, with straight sides and the clypeus with its median border straight and transverse in the middle and angulate at the sides. Thorax narrow, the epinotum with convex base, which is about half as long as the abrupt, feebly concave declivity. Petiole as in the major worker.

Sculpture and pilosity much as in the major worker. Head with the yellow of the posterior corners extending forward and enclosing the eyes and front, and the anterior portion of the clypeus also yellowish. The brown of the remaining portions paler than in the worker major. The thorax is pale yellow, with restricted clouds of dark brown on the mesonotum, scutellum and epinotum. Wings yellowish, with pale yellow veins and stigma.

Described from numerous specimens taken from two colonies at Grande Rivière. At first sight this species would seem to be merely a small sub-

species of *maculatus*, but if it were reduced to this rank, *C. ramulorum* Wheeler and *ustus* Forel would also have to be regarded as subspecies of *maculatus*. From *ramulorum*, *larvigerus* differs in its larger size, the shape of the clypeus in the major worker and the peculiar coloration and more pronounced punctuation of the head in this phase.

82. **Camponotus ustus** *Forel.*

Bull. Soc. Vaud. Sc. Nat., XVI, 1879, p. 75, ☿ ♀ ♂; Mitth. Naturh. Mus. Hamb., XXIV, 1902, 2. Beiheft, p. 11, ☿ ♀.

The types of this species came from St. Thomas. It is also recorded by Forel from Port au Prince, Haiti, and we have before us a major worker received from Forel and taken in that locality by Mr. G. Keitel. It agrees very closely with Forel's description but the erect hairs on the scapes are more abundant. The whole upper surface of the head, including the cheeks, is hairy and the tibiæ have short but distinct hairs. The brown on the head is not very deep nor sharply defined, and the same is true of the transverse bands on the gaster. The specimen measures about 6 mm. All of the specimens collected by the junior author differ from this specimen, and represent the three following varieties.

83. **Camponotus ustus** *Forel* var. **ulysses** *Forel.*

Mitth. Naturh. Mus. Hamb., XXIV, 2. Beiheft, 1907, p. 11, ☿ ♀ ♂.

Worker major (after Forel). Length 7 mm.

Somewhat larger than the type of the species. Head broader and shorter. Epinotum forming a single arc, whereas in *ustus* (typical) it is higher and has a distinct basal and declivous surface. The sculpture is more sharply reticulate, especially on the head, so that the surface is less shining. The gaster has brown bands which are sharply marked off from the yellow ground color (in the typical *ustus* the bands are more diffuse).

Female. Length 10.5 mm.

Differing from the type in the same characters as the worker major. Head feebly shining or only lustrous (strongly shining in the type of the species), with distinct, scattered, coarse punctures. Epinotum less cuboidal. The wings are yellowish (in the type of the species nearly colorless). The brown bands on the gaster are very sharply defined.

Male. Length 7 mm.

Unusually large, gaster without transverse bands. Less shining than the type of the species. In other respects scarcely distinguishable except by the more yellowish tint of the wings. It belongs, at least very probably, to this variety.

Isla de Cabrilos in Lake Assuei and Port au Prince (G. Keitel); the male from Port au Prince.

It seems to us very probable that the male does not belong to this variety but to some one of the subspecies of *maculatus* described above. We refer to this variety several series of workers from Grande Rivière, Cape Haitien, Petionville, Ennery, Manneville and Port au Prince. All the specimens agree well with Forel's description except that the head and mandibles of the worker major are more shining and the thorax is slightly clouded with fuscous. The cheeks and scapes bear short, erect hairs but fewer than in the true *ustus*, apparently. In the minor workers the cheeks are naked and the scapes bear only a very few, scattered, suberect hairs.

84. **Camponotus ustus** *Forel* var. **sublautus** var. nov.

Worker major. Length: 6.5–7.5 mm.

Differing from the typical *ustus* and the var. *ulysses* in having no erect hairs on the cheeks and sides of the head, or even oblique hairs on the tibiæ, and the hairs on the body are much less abundant. The scapes are either naked or have only 3 or 4 erect hairs on their anterior surfaces. The coloration of the head is much like that of *C. fumidus* var. *illitus*, the cheeks, a large rectangular spot on the vertex, connected with each eye by a transverse line, being light or dark brown, while the remainder of the head, clypeus and front are brownish yellow. The punctures on the cheeks are small and superficial, the head and mandibles are more shining than in *ustus* and its var. *ulysses*. The epinotum is distinctly angular, with subequal base and declivity, the former feebly convex, the latter feebly concave. The brown bands on the gaster are faint and poorly defined as in the true *ustus*.

Worker minor. Length 5–6 mm.

Head subrectangular, only 1½ times as long as broad, as broad in front as behind, with straight sides, straight posterior border and rounded posterior angles. Antennal scapes reaching about half their length beyond the posterior corners of the head. Thorax shaped much as in the major worker. Pilosity and sculpture very much as in the latter phase, but the scapes are always without erect hairs. Pale yellow throughout, except the mandibles, which are reddish.

Described from several specimens taken at Diquini.

85. **Camponotus ustus** *Forel* var. **furnissi** var. nov.

Worker major.

Differing from the preceding variety in the color of the head, which is yellow throughout, except for an elongate, subquadrate brown blotch on the vertex extending forward somewhat between the frontal carinæ. The mandibles are red and somewhat paler than in the var. *sublautus*. In other respects like that variety.

Worker minor.

Distinguishable from the worker minor of *sublautus* only by the mandibles, which are pale yellow like the remainder of the body.

Female (deälated). Length 9.5 mm.

Colored like the worker major, except that the brown transverse bands on the gaster are darker and more sharply defined.

Described from several workers and a single female taken from two colonies, one at Petionville, the other at Manneville. The two new varieties described above, which are clearly intermediate between the typical *ustus* and *C. ramulorum* Wheeler of the Bahamas and Cuba, show that the latter form can hardly be maintained as a distinct species, but should more properly be regarded as a subspecies of *ustus*. The worker major of the typical *ramulorum* is distinguished from the *ustus* forms by its smoother and more shining surface, impunctate head and the brighter, deeper and more sharply outlined brown markings, which extend also to the thorax. The pilosity is even sparser than in the vars. *sublautus* and *furnissi*, and the legs and body are without traces of pubescence and the scapes are quite naked.

The whole series of forms described in the preceding paragraphs, including *larvigerus, fumidus, ustus* and *ramulorum* and their varieties form a compact group of closely allied forms which, were it not for unduly complicating matters, one might be tempted to attach to *maculatus* as so many subspecies or varieties, since they all differ from one another merely in minor morphological characters and in pilosity and coloration. The coloration, especially of the head and gaster, shows curious similarities in all the forms.

86. **Camponotus sexguttatus** (*Fabricius*).

Formica sexguttata FABRICIUS, Ent. Syst., II, 1793, p. 354, ♀.

A female, a worker minor and three males belonging to the typical dark form of this species, taken in the San Francisco Mts. of San Domingo by Mr. Aug. Busck.

87. **Camponotus claviscapus** *Forel* subsp. **occultus** subsp. nov. (Fig. 24.)

Worker major. Length 5.5–6.5 mm.

Differing from the typical *claviscapus* of Trinidad and its var. *subcarinatus* Forel of Central America in its somewhat smaller size, in having the sides of the clypeus more nearly straight and parallel and the punctures on the mandibles, clypeus, cheeks and front denser and larger, so that these portions of the head are nearly subopaque. The base and declivity of the epinotum meet at nearly a right angle, which is blunt but distinct, the declivity being concave. The thorax is uniformly yellow throughout, as is also the posterior border of the head, and the brown bands on the posterior borders of the gastric segments are nery narrow.

Worker minor. Length 4–5.5 mm.

Differing from the worker of the typical form in having the clypeus distinctly carinate and in the paler color of the body, which is yellow throughout, with the head a little darker and more reddish and without brown bands on the gaster.

Female (deälated). Length 7 mm.

Closely resembling the major worker but the head proportionally shorter and smaller. The thorax is elongate elliptical, its upper surface very smooth and shining. The body is pale yellow, the head slightly but uniformly reddish, much paler than in the worker major, the mandibles dark red, the gaster with a distinct transverse brown stripe near the posterior border of each segment. The female of the var. *subcarinatus* has the head and gaster much darker and even the thorax tinged with brown.

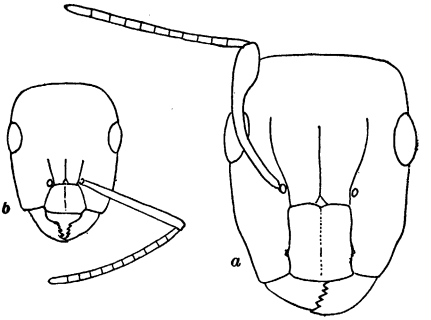

Fig. 24. *Camponotus claviscapus* Forel subsp. *occultus* subsp. nov. a, head of worker major from above; b, head of worker minor.

Male. Length 3.5–4 mm.

Differing from the male of the typical *claviscapus* and its var. *subcarinatus* in its smaller size and pale color. The whole body is pale yellow and there are no brown bands on the gaster. The wings are nearly colorless, with very pale yellow veins and stigma.

Described from several workers, two males and one female taken from hollow twigs and bamboo at Petionville, Diquini, St. Marc and Port au Prince. This form should, perhaps, rank as a distinct species. We have not seen typical specimens from Trinidad although we have compared the Haitian form with large series of all four phases of the var. *subcarinatus* taken by the senior author in Costa Rica and Guatemala and with a number of workers of a form which if not identical with, is nevertheless very close to, the typical *claviscapus*, collected by the junior author in Brazil.

88. **Camponotus christophei** sp. nov. (Figs. 25 and 26.)

Major worker. Length 5–6 mm.

Head rather large, subtrapezoidal, seen from above as broad as long, broadest behind, with rather straight posterior border and rectangular posterior corners, each with a sharp ridge running to the eye, the sides flattened behind and below this ridge, the cheeks rather convex. In profile the head is convex above and below, with elliptical, rather large, flattened eyes situated behind its median transverse diameter. Mandibles small, very convex, 5–6-toothed. Clypeus flat, indistinctly carinate, its anterior border sinuately excised in the middle. Frontal area obsolete. Frontal carinæ curved, but rapidly diverging behind where they are fully twice as far apart as in front. Frontal groove absent. Antennæ slender, scapes curved, but slightly enlarged towards their tips, which extend a little beyond the posterior corners of the head. Thorax short, flattened above and on the sides, the pronotum less than twice as broad as long, broader in front where it is a little narrower than the head, rounded and produced in the middle anteriorly over the neck, with each side expanded into a sharp, aliform plate, which is slightly reflected. Its outline

seen from above is slightly rounded and produced at the anterior corner as a distinct triangular tooth. Promesonotal suture very distinct, meso- and epinotum fused to form a single mass which is about as long as, but much narrower than the pronotum; the mesonotum trapezoidal, less than twice as broad as long, strongly marginate on the sides which are straight and separated from the base of the epinotum by a straight, transverse ridge, instead of the suture, which is absent. Epinotum very short, high in profile, with very abrupt, slightly concave declivity and extremely short, feebly convex base, the two surfaces forming a distinct angle with each other. Petiole nearly as broad as the epinotum behind, but its scale much lower than the base of the epinotum, much compressed anteroposteriorly, with rather sharp, broadly rounded superior border. Gaster oval, broader in front than behind, distinctly flat-

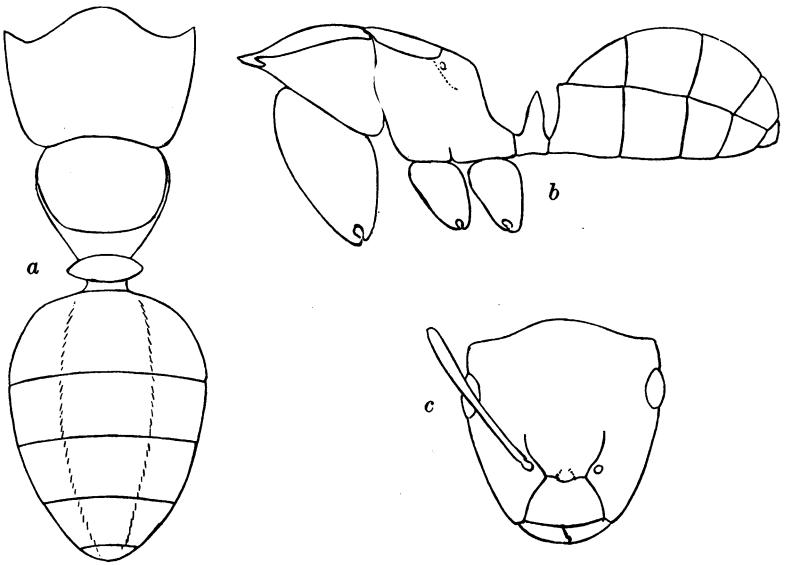

Fig. 25. *Camponotus cristophei* sp. nov. Worker. a, dorsal view of body; b, profile of body; c, head from above.

tened dorsoventrally, the first segment sharply marginate anteriorly. Legs rather stout.

Opaque; head and thorax very densely and uniformly punctate; sides and posterior portion of head and the pleuræ also finely and regularly longitudinally rugulose. Gaster with a velvety texture produced by extremely fine and dense shagreening. Posterior margin of head, mandibles and anterior surfaces of fore legs shining.

Hairs white, coarse, blunt, suberect, most abundant on the upper surface of the head, pro- and mesonotum, base of epinotum and border of petiole; sparser on the gaster, appressed on the pleuræ. Flexor borders of femora with a fringe of similar hairs. Pubescence white, appressed, short and coarse on the body and the legs, except on the upper surface of the gaster, where it is long and aggregated on each side to form a broad yellowish white band, which tapers anteriorly and posteriorly. On the venter there are two patches of similar appressed pubescence, but shorter

and less dense. The pubescence on the remainder of the gaster is even shorter and sparser than on the head.

Black; antennae light red; mandibles and last tarsal joints dark red; angles of pronotum brownish, somewhat translucent.

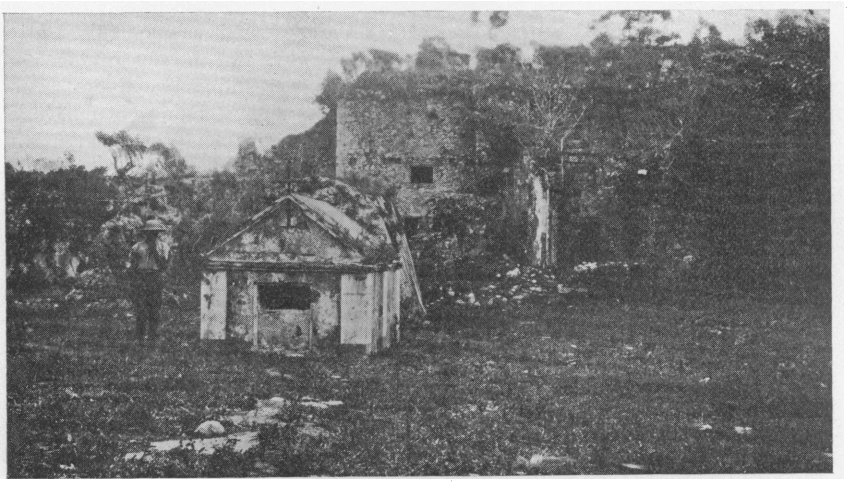

Fig. 26. View in the Citadel of Cristophe where *Camponotus cristophei* sp. nov. was taken.

This very beautiful species, which, with the two following forms is related to *C. saussurei* Forel, is described from four specimens taken near Milot on blades of a tall grass outside the citadel of Henri Christophe, former king of Haiti and also running about on the stone-work inside the fortification.

89. **Camponotus christophei** subsp. **augustei** subsp. nov.

Worker major. Length 5–6 mm.

Closely resembling the preceding species in form, sculpture, pilosity and color but differing in having the petiole somewhat broader and in completely lacking the two pale bands of long appressed pubescence on the gaster.

Worker minor. Length 4.5–5.5 mm.

Differing from the major worker in its somewhat smaller average size, smaller head, slightly narrower thorax, less convex and more sloping epinotum, and narrower and less reflected and less angular pronotal borders. The gaster is covered uniformly with short, sparse, blunt, white pubescence, like that on the head and thorax.

Described from six major and four minor workers found running about on leaves at Petionville. The minor workers show conclusively that the specimens have not lost white bands through rubbing. This subspecies is dedicated to the late president of Haiti, M. Tancrède Auguste.

90. **Camponotus toussainti** sp. nov. (Fig. 27.)

Worker minor. Length: 4–5 mm.

Head trapezoidal, as broad as long, broader behind than in front seen from above, with evenly and feebly convex posterior and lateral borders; each posterior corner connected with the eye by a distinct ridge. Mandibles small, convex, apparently 4–5-toothed. Clypeus flattened, ecarinate, trapezoidal, its anterior border not produced, sinuately notched in the middle. Frontal area and groove absent. Antennæ rather slender, scapes feebly enlarged at their tips and extending a litte beyond the posterior corners of the head. Thorax short, with distinct promesonotal but no mesoëpinotal suture, feebly arcuate in profile, flattened on the sides. Pronotum broad, subpentagonal, broader in front than behind, its median anterior border produced as a rounded angle over the neck, its sides expanded as aliform, feebly reflected plates, bluntly rectangular in front and behind. Mesonotum much narrower

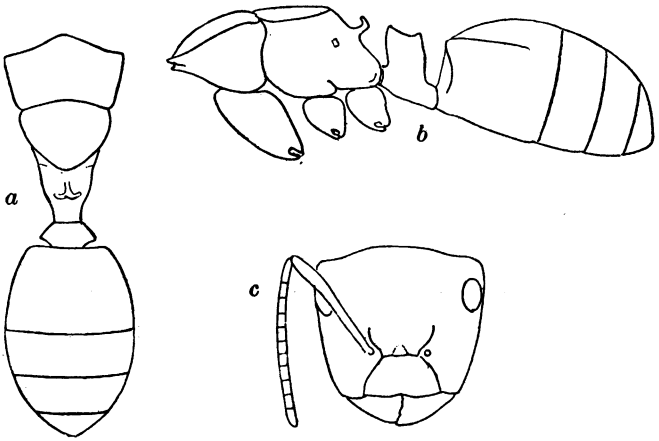

Fig. 27. *Camponotus toussainti* sp. nov. Worker. a, dorsal view of body; b, profile of body; c, head.

than the pronotum, subtriangular, as long as broad, its anterior border evenly rounded, its sides strongly margined and feebly rounded, meeting behind in a blunt, margined point where the mesoëpinotal suture should be located. Epinotum obliquely sloping, distinctly concave, bearing just above its center an unpaired process which is directed backward and upward and bifurcates at the tip to form two branches which are as long as the unpaired basal stem and slightly recurved and blunt at their tips. Petiole nearly twice as broad as long, broader than the epinotum, seen from above trapezoidal, broader behind than in front, its anterior border perfectly straight, transverse and margined, its sides also straight and sharply margined and forming perfect obtuse angles with the anterior border, behind continued into short, pointed teeth. The posterior border is rounded in the middle and sinuately excised on each side. The upper surface is flattened like the pro- and mesonotum. In profile the petiole is about as long as high, subcuboidal, a little higher in front than behind and thicker above than below. Gaster rather large, elliptical, somewhat flattened

dorsoventrally, the anterior and lateral borders of the first segment strongly marginate. Legs moderately stout, fore femora not incrassated.

Opaque throughout, densely and uniformly punctate, the punctures on the gaster being finer than those on the head, thorax and petiole, and the scapes and legs still more finely punctate. Pleuræ also feebly longitudinally rugulose.

Hairs and pubescence white; the hairs short, moderately coarse, pointed, erect and rather uniformly abundant on the head, thorax and gaster, shorter and oblique on the legs, absent on the scapes. Pubescence very coarse, long, appressed, silvery, conspicuous on the head, thorax and gaster but not dense. Scapes and funiculi covered with very short, fine, rather dense pubescence.

Black; antennæ, tibiæ and tarsi dark red.

Described from several specimens taken at Petionville and in the mountains north of Jacmel, running on leaves. The nests could not be found. This species, which is dedicated to the San Domingan patriot Toussaint L'Ouverture, is closely related to *C. saussurei* of St. Thomas, which Forel styled "le bijou du genre *Camponotus*," but the Haitian species is even more remarkable, because its petiole has such an extraordinary shape. The similarity between the two species is closest in the structure of the head and thorax as shown by comparison with Forel's description and figure (Études Myrmécologiques en 1879. Bull. Soc. Vaud. Sc. Nat., XVI, 1879, p. 103, fig. 3).