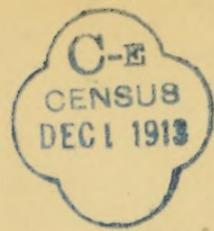


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UNIVERSITY STUDIES

OF THE

UNIVERSITY OF NEBRASKA

VOLUME XII



LINCOLN

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VOL. XII

JANUARY, 1912

No. 1

UNIVERSITY STUDIES

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LINCOLN, NEBRASKA

UNIVERSITY STUDIES

VOL. XII

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No. 1

STUDIES OF NORTH AMERICAN BEES

I. FAMILY NOMADIDAE

BY MYRON HARMON SWENK

For ten years past the writer has been giving a great deal of attention to our native wild bee fauna, and while his studies in this group were at first strictly taxonomic in character, in later years they developed into a consideration of the general habits and behavior of these interesting and useful little insects, and especially of the rôle played by them in the pollination of our local entomophilous flora. Four years ago these studies assumed a distinctly more serious aspect when the last mentioned line of research was selected as the specific subject for advanced graduate work, and during the subsequent period these investigations have been furthered as rapidly as the limited available time of the writer permitted. Altogether much useful data has been accumulated, but prior to its publication it is indispensable that all of the species comprising our local bee fauna be correctly identified and that the new forms incidentally discovered be properly described and named, else no lucid or accurate presentation of the observed facts can be made. The present paper, then, is the first of a series of contributions toward a synopsis of the bees of Nebraska, in which all of the species known from this state are to be considered, family by family, all carefully tabulated and listed with brief statements of their distribution, season and abundance, together with the chief citations in the literature concerning the previously known forms and diagnoses of the new

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forms. At the same time useful records of other species of nearctic bees based on specimens at hand will be appended after the treatment of the local species, and such new forms as may occur in this material will also be described and named.

TERMINOLOGY

In the present paper, as well as in the others of the series to follow, the writer will deviate from the terminology previously employed by him in taxonomic papers on bees and still in current use by most other workers in the Apoidea, principally to the extent of adopting the nomenclature of the thoracic sclerites recently proposed by Snodgrass (*Bulletin* 18, technical series, Bureau of Entomology, pp. 53-59, and *Proceedings U. S. National Museum*, XXXIX, pp. 37-91). The chief changes of importance to taxonomists are these: The sclerite formerly called simply "mesonotum" or even "mesothorax" is here called the *mesoscutum*, while that previously termed "scutellum" here becomes *mesoscutellum*, that termed "postscutellum" becomes *metanotum*, that termed "metathorax" becomes *propodeum* and the old term "pleura" is here considered to embrace the *propleura*, *mesopleura* and *metapleura*, the latter with an *upper* and a *lower* plate. The term *basitarsus*, proposed by Cockerell, is adopted for the basal joint of the hind tarsus. In the wing veins the old names used by Cresson and most authors following him are used here, in the belief that they are more easily learned and comprehended by the beginner in taxonomy, though the symbolical terminology has the advantage of reflecting homology. It should also be mentioned that in the present paper especially, in all comparisons between the length of antennal joints 3 and 4 the measurements taken are the *shortest* length of joint 3, usually the under inner side, with the length of joint 4 taken *in the same plane*, as was done by Cresson in his descriptions of *Nomada* species years ago (*Transactions American Entomological Society*, VII, p. 72).

TYPE NOMENCLATURE

The type nomenclature here employed is one adopted from the usage and suggestions of various taxonomists in all groups, and is believed to be adequate for all occasions in entomological systematic work where a refined type nomenclature is desirable. For the sake of clearness, the following definitions are given:

Type: a single specimen forming the basis of a description, either a unique or one selected from a series (=holotype);

Allotype: a single specimen of the sex not represented by the type, and upon which the description of this secondly described sex is based, either a unique or one selected from a series;

Cotype: a specimen of the original series forming the basis of a description where no type has been selected (=syntype);

Lectotype: a specimen of a cotypic series chosen after publication to take the place of a type as the standard of reference;

Paratype: a specimen of the original series forming the basis of a description remaining after a type or lectotype has been selected;

Neotype: a specimen, preferably from the original type locality, identified with a described and named species and selected to take the place of a type which has been lost or destroyed, as the standard of reference for that species (=proxytype);

Topotype: a specimen from the same exact locality as the type of a described species, and identified with that species by any taxonomist;

Metatype: a specimen, preferably a topotype, identified as identical after comparison with the type, allotype or lectotype by the original describer of the species;

Homeotype: a specimen, preferably a topotype, identified as identical after comparison with the type, allotype or lectotype by a taxonomist other than the original describer of the species;

Autotype: a specimen, a topotype or not, determined by the original describer of a species in illustration of it without having actually compared it with the type, allotype or lectotype.

Unless otherwise specifically stated, the types and allotypes of all new forms described in this series of papers are in the collection

of the writer, and at present deposited with the University of Nebraska.

CLASSIFICATION

The classification to be employed in this series of papers does not agree in all respects with any in current use by apidologists. It is, however, very largely based upon the excellent classification proposed by Robertson (*Canadian Entomologist*, XXXVI, pp. 37-43, 1904), modified along several lines proposed by Cockerell (*University of Colorado Studies*, VII, pp. 181-88, 1910). In the present paper, as well as in those to follow, the classification of the subfamilies, genera and subgenera as they appear to the writer will be given in connection with each family, so far as the Nebraska species are concerned, and after the completion of the series a synopsis of the families will be given. The families will be taken up individually, not in any phyletic sequence but in the sequence best accommodated to the immediate circumstances of preparation and publication.

MATERIAL

The present paper is the result of a careful study of over eight hundred specimens of the genus *Nomada*, which is the only valid genus of the family Nomadidae, except *Vicreckella*, found within our limits. Of these, all but about one hundred specimens were collected within the state of Nebraska, and many of the species are represented by large series which gives considerable opportunity for the study of variations within the species. As a result of this the nomenclatorial standing of a number of forms is changed at this time, while a few nominal species and subspecies are shown to be synonyms. Fifty-three species and subspecies are represented in the Nebraska collections, which gives the state about one-sixth of the North American forms. Of these, nineteen species and three subspecies are apparently new and are here described and named, while from outside the state ten species and two subspecies are described as new, making a total of thirty-four new forms presented in this paper. In addition to this material the writer recently availed himself of the oppor-

tunity to make a critical study of various species represented in the collection of the United States National Museum at Washington, including a considerable number of types. It might also be mentioned in passing that, when the genus *Nomada* is monographed, it will be necessary for the taxonomist to have a very large amount of material from many localities to discover the truths in the apparently very great individual and geographic variation, and great care must be exercised in the proper matching of the sexes. Undoubtedly when this is done, the current number of nominal species will be greatly reduced.

THE TYPE SPECIES OF NOMADA

Although the genus *Nomada* was one of the earliest segregates from the all-including Linnean bee-genus *Apis*, there seems to be no definite allusion to the type species of this genus in our recent literature, and, in fact, authors seem to be at variance as to the authority for the genus itself. Schmiedeknecht in his monograph of the European species of *Nomada* (*Apidae Europaeae*, 1882) credits the genus to Fabricius, and in this he has been followed by other authors, including Friese (*Die Bienen Europas*, I, p. 214, 1895) and, in a recent paper, Cockerell (*University of Colorado Studies*, VII, p. 183, 1910). Fabricius first used this name in 1775 (*Systema Entomologiae*) and included under it a number of species without designating a type. The first mentioned of these, *Nomada histrio*, is a *Crocisa* and was referred to that genus by Jurine at the time of its erection in 1807 (*Nouvelle méthode classer les Hyménoptères*, p. 241); the second species, *Nomada variegata*, is an *Epeolus* and as it was the only species referred to that genus at the time of its founding by Latreille in 1802 (*Histoire naturelle des fourmis*, p. 427, and *Histoire naturelle des crustacés et des insectes*, III, p. 375) it is therefore the type species of *Epeolus*, and was in fact so designated by Latreille in 1810; the third species, *Nomada ruficornis*, was the same as the *Apis ruficornis* of Linnaeus (*Systema Naturae*, 10 edition, p. 578, n. 26, 1758) and is the only Linnean species of the tenth edition which is still retained in the genus *Nomada* as at present understood. *Nomada ruficornis* (Lin-

naeus) is a widely distributed, very common palearctic bee and has been considered in a general way as typical of *Nomada*, so there could be no objection, considering only the above facts, in its being definitely considered the type species of the genus.

However, both Ashmead and Robertson credit the genus to Scopoli, who used the name for the last of the three genera in which he included all the bees known to him, viz., *Eucera*, *Apis* and *Nomada* (*Annus Historico-naturalis*, IV, p. 44, 1770), five years prior to the use of the name by Fabricius, so there would seem to be no doubt but that Scopoli should stand as authority for the genus. This being true, and under the rule of the International Code that the type must be one of the originally included species of a genus, we must turn to Scopoli for the type species. This is unfortunate, since many of the species included under *Nomada* by Scopoli are at present unrecognizable (*e. g.*, *squalida*, *rufescens*, *ranunculi*, *nasuta*), while others may be identified with other modern genera, as his second species, *succincta*, which has been identified with *Sphecodes gibbus*. The fifth species in Scopoli's list is *Nomada ruficornis*, obviously considered by him to be the same as the *Apis ruficornis* of Linnaeus, but later by Gmelin (*Systema Naturae*, 13 edition, p. 2976, n. 210, 1790) considered as distinct from that of Linnaeus so that he applied the new name *Nomada minor* to it, under which name it has not since been recognized. Considering the abundance and wide distribution of *Nomada ruficornis*, as well as its great variability in size (7-14 mm.) and color, it seems reasonable to believe that Scopoli was probably correct in referring the species before him to *ruficornis*; moreover, as the writer has previously expressed in a parallel case (*antea*, VII, p. 7) the reference of the name *ruficornis* to *Nomada* was based as much on Linnaeus's description of *Apis ruficornis* as upon the specimens at hand, and it seems to him that, as a general nomenclatural proposition in cases of this kind, pending definite decision by the International Commission on Zoological Nomenclature, it is distinctly more logical and less confusing to consider as the type species the one properly bearing the name used, rather than that of the species before the original author when a misidentification is evident; all of which

considerations would again point to *Nomada ruficornis* as the type of the genus.

The first definite designation of a type in *Nomada* was by Latreille in 1810 (*Considérations générales sur l'ordre naturel des animaux*, etc., p. 439), when *Nomada fabriciana* (Linnaeus) Fabricius was designated as the type; but since we cannot attribute the genus to Fabricius because of Scopoli having used the name five years previously, and as Scopoli did not include *N. fabriciana* among his species, obviously *fabriciana* cannot be the type species of *Nomada*. Curtis in 1832 (*British Entomology*, IX, no. 419) designated the type of *Nomada* as *N. ruficornis* and this may be considered as definite type designation for the genus, involving as it does an originally included species. Westwood, moreover, in 1840 (*Synopsis of the Genera of British Insects*, II, p. 85) also referred to *N. ruficornis* as the "typical species" under *Nomada*.

SUBDIVISIONS OF THE GENUS NOMADA

The genus *Nomada*, in a broad sense, is comprised of a large complex of forms, over 270 named species and subspecies from North America alone being included in the recent enumeration by Cockerell (*Proceedings U. S. National Museum*, XLI, pp. 226-36), which have so far defied successful subdivision into valid genera, although the desirability of such a division is obvious and numerous conscientious attempts have been made to do so. The group as a whole seems to intergrade at various points in practically every promising character which has been employed and tested, so that an absolute separation on these characters would place closely allied forms widely apart and bring together forms quite unlike, and, as to constitute a really valid genus the breaks in the evolutionary series should be sufficiently marked that the groups can be distinctly and trenchantly set off, the possibility of successfully subdividing *Nomada* into good genera seems quite remote. Various fairly well defined though intergrading groups are recognizable, however, which if the characters are not absolutely applied will separate the species into

sections of apparent phyletic significance, and these may be very properly regarded as subgenera.

Historically, the first subdivision of *Nomada* was proposed by Cockerell and Atkins in 1902 (*Annals and Magazine of Natural History*, series 7, X, pp. 42-46), when the subgenus *Micronomada* was proposed with a form of *Nomada modesta* Cresson as the type (var. *vegana* Ckl.), and the subgenus *Heminomada* with *Nomada obliterata* Cresson as the type. In 1903 Robertson raised these to the rank of genera and proposed six other new genera, viz., *Gnathias* with *Nomada bella* Cresson as the type, *Cephen* with *Nomada texana* Cresson as the type, *Centrias* with *Nomada erigeronis* Robertson as the type, *Holonomada* with *Nomada superba* Cresson as the type, *Phor* with *Nomada integerima* D. T. (= *integra* Robertson) as the type and *Xanthidium* with *Nomada lutcola* Olivier as the type (*Canadian Entomologist*, XXXV, pp. 172-79). In the same year Cockerell proposed as subgenera *Melanomada* with *Nomada grindeliae* Cockerell as the type and *Nomadula* with *Nomada articulata* Smith as the type (*Proceedings of the Philadelphia Academy of Natural Sciences*, p. 611).

These several groups fall readily into two general divisions, those with the anterior coxae simple or but feebly spined and those having them rather distinctly or conspicuously spined. Into the former division fall *Nomada* (sens. str.), *Phor*, *Gnathias*, *Holonomada*, *Xanthidium*, *Heminomada* and *Melanomada*, while into the latter division fall *Nomadula*, *Centrias*, *Cephen* and *Micronomada*. These two divisions almost deserve generic recognition, yet some species of *Nomada* sens. str. (e. g., *denticulata*) have distinct though feeble coxal spines, while other species, referable by their characters to *Xanthidium* (e. g., *jenni*, *mimula*, *schlechteri*, etc.), have entirely the habitus of *Micronomada* and are obviously closely related to the species falling in that group, differing only in the lack of coxal spines, these being in some cases represented by minute coxal tubercles. Evidently, then, these two divisions approach each other too closely to be regarded as distinct genera.

Melanomada is quite distinct in the unique puncturation of the

vertex and mesoscutellum and in the wholly black color of the male, as well as possessing good palpal characters. It has even been suggested that this group may be worthy of recognition as a perfectly distinct genus (Cockerell, *Proceedings U. S. National Museum*, XXXIX, p. 649), and further study may demonstrate that this is advisable. In some ways it resembles the genus *Viereckella*, but *Melanomada* has the maxillary palpi 6-jointed, with the apical joint long, the apical abdominal segment broadly rounded in both sexes, the marginal cell pointed at apex and not separated from the costa, the mandibles simple, the legs normal, etc., while *Viereckella* has the maxillary palpi 5-jointed with the apical joint extremely minute, the apical abdominal segment elongate acuminate in the female and elongate spatulate in the male, the marginal cell blunt at apex and remote from the costa, the mandibles deeply bidentate and the hind femora of the male incrassate.

The subgenus *Heminomada*, elevated to the rank of a genus by Robertson, is simply a *Xanthidium* in which the first transverse cubital nervure and sometimes the second also is wanting or aborted in one or both wings in about three-fourths of the ordinary run of specimens. The wings are not, as stated by Cockerell in his original description of the subgenus, always two-celled. In a series of one hundred and one Nebraska specimens of *Nomada obliterata* Cresson, the type species of *Heminomada*, before the writer, one has the right wing 1-celled and the left wing 2-celled, one has the right wing 2-celled and the left wing 1-celled, sixty-seven have both wings 2-celled, nine have the right wing 2-celled and the left wing 3-celled, ten have the right wing 3-celled and the left wing 2-celled, and thirteen (13 per cent.) have both wings 3-celled. In Illinois Robertson finds 25 per cent. of his specimens with both wings 3-celled. Obviously this venation character is useless to designate a genus or even a subgenus, since one out of every five specimens collected would invariably fall in another group. If we recognize *Heminomada* we must also provide another genus for the recently described *Nomada victrix* Ckll., which has the second transverse cubital nervure lacking in both wings of the typical series of three females. All of this is highly

illogical, and it seems best to consider *Heminomada* and *Xanthidium* as purely synonymous, and, as the older of these two names is *Heminomada*, and in accordance with the law of priority the oldest valid name must be used for the group, we must call the subgenus *Heminomada*, even though for the bulk of the species it is somewhat of a misnomer.

The subgenus *Heminomada*, in this sense, differs from the subgenus *Holonomada* chiefly in having the apex of the male notched and antennal joint 3 almost always distinctly shorter than 4, the apex of male *Holonomada* being entire and antennal joint 3 of the female almost always longer than 4. The character of the male apex seems to hold well, though some species plainly referable to *Heminomada* (e. g., *crawfordi*) have the notching of the truncate termination of the apex exceedingly feeble in some specimens; the proportion of the antennal joints is not quite so reliable, however, and there are several species of *Heminomada* (e. g., *alpha*) which have the third antennal joint as long as or even slightly longer than the fourth, while on the other hand some species of *Holonomada* (e. g., *placida*) may have the third antennal joint a shade shorter than the fourth. On the whole, however, the species seem to fall rather naturally into these two groups, and it seems to the writer they merit recognition as subgenera.

The type species of *Nomada* (*N. ruficornis*), as exemplified in a pair from Alost, Belgium, determined by and received from J. Bequaert, and agreeing with Schmiedeknecht's diagnosis of the species, has simple coxae and mandibles, closely punctured vertex and mesoscutum and no yellow ornaments on the thorax of the female; antennal joint 3 is distinctly shorter than 4 and the basal nervure is before the transverso-medial nervure, while the male apex is notched. It is thus a member of *Nomada* sens. str. as defined by Robertson. *Nomada* in this restricted or subgeneric sense differs from *Holonomada* in much the same characters as does *Heminomada*, i. e., in having the male apex notched and antennal joint 3 shorter than 4, and moreover we find here species in which the notching of the male apex is exceedingly slight (e. g., *pallidipicta*, *beulahensis*), and other species in which

joint 3 of the antennae is longer than 4 (*e. g.*, *adducta*), but all such cases are in autumnal species obviously allied to certain species of *Holonomada* which also fly in the fall. As with *Heminomada*, however, the bulk of the species fall distinctly in one or the other group, while the aberrant forms are not numerous or decided enough to throw the recognition of *Holonomada* open to serious question.

Nomada and *Heminomada* come very close together, and their separation is based largely upon color characters. *Heminomada* differs from *Nomada* in the possession of yellow ornaments on the head and thorax of the female, and the male has the yellow bands on abdominal tergites 1-6 entire and continuous except sometimes on 1, while *Nomada* has the head and thorax without yellow ornaments and the bands on the tergites interrupted, or if entire with separated spots on the extreme sides of tergite 5. But of course these characters do not hold absolutely, for some species of typical *Nomada* (*e. g.*, *taraxacella*, *mediana*, *nigrofasciata*, *accepta*, etc.) have yellow spots on the corners of the face, at least in some specimens, while some species of *Heminomada* (*e. g.*, *collinsiana*) entirely lack the yellow ornaments of their close relatives. Even in the type species of the genus (*ruficornis*) the male has entire and continuous yellow bands on tergites 2-6 without separated lateral spots cut off on 5, at least in the specimen before the writer, and thus would fall in the genus *Xanthidium* as defined by Robertson, or, as we are calling the group, the subgenus *Heminomada*. But there are very few species that cannot at once be satisfactorily placed in one or the other of these two groups by the characters ascribed, and those falling in each group seem to be for the most part closely allied *inter se*, so that on the grounds of expediency it would seem advisable to continue to recognize, for the present at least, the distinctness of *Nomada* and *Heminomada* as subgenera, realizing at the same time that color characters chiefly applicable to one sex only and not invariably in that are a very poor basis for even a subgenus to stand upon.

Gnathias is certainly a good subgenus, if it is not worthy of generic rank. The dentation of the mandibles is not a character

which is subject to much intergradation, yet in some species referred to *Nomada* sens. str. (e. g., *propinqua*) the tips of the mandibles are sometimes truncated and there is a deep median groove or even a slight terminal notching at the end of this groove. Such specimens, though they suggest the derivation of *Gnathias*, do not approach at all closely to the species actually referred to that group in the mandibular character, and are easily referred to typical *Nomada*. In all other characters except the bidentate mandibles *Gnathias* may be matched by species of typical *Nomada*.

Robertson's alleged genus *Phor*, to which only the type species *N. integerrima* D. T., from Illinois, and *N. subgracilis* Ckll., from California, have been referred, and to which *N. texator* Ckll., from Colorado obviously belongs, is fairly intermediate between *Nomada* sens. str. and *Holonomada*. The entire apex of the male separates it from any species of *Nomada* sens. str. and indicates affinity with *Holonomada*, or at least a parallel differentiation, while the coloration, antennal structure, etc., are all those of typical *Nomada* in both sexes, much like that found in the *accepta* group. The black curved bristles of the apex of the hind tibiae of the female occur in various species of *Nomada* (e. g., *bisetosa*) while numerous species of *Nomada* have the basal nervure interstitial with the transverso-medial nervure. The group can probably best be disposed of by recognizing it as a subgenus, at least for the present.

Robertson in characterizing his genus *Cephen* expressed some doubt as to its distinctness from *Micronomada*, but because of the more narrowed second submarginal cell, more pointed marginal cell and basal nervure interstitial with or slightly basad of the transverso-medial in the type species of *Micronomada* as compared with the type species of *Cephen*, he allowed the latter to stand. A study of a series of *modesta* shows considerable variation in these characters, and when allied species are considered the distinctions become worthless as generic or subgeneric characters, being, indeed, scarcely of specific value. Cockerell has repeatedly stated his inability to distinguish *Cephen* from

Micronomada, and undoubtedly the former should be considered a synonym of the latter.

Centrias and *Nomadula* are chiefly characterized by the spined coxae and the peculiar antennae of the male, in which latter character they differ from *Micronomada*, which has also a different proportion of the antennal joints which seems to hold good. The differences of puncturation, color, reflexion of the abdominal tergites on the apical margin or lack of it, etc., would seem to justify the continued recognition of these two groups as subgenera.

Family NOMADIDAE

KEY TO THE NEBRASKA GENERA

- Maxillary palpi 6-jointed; marginal cell pointed at the apex and not separated from the costa, the second submarginal cell receiving the first recurrent nervure well before its end; color not entirely black but with yellow or red tegumentary ornaments except in males of the subgenus *Melanomada*; pygidium broadly rounded in both sexes, in the male with the tip sometimes notched or bifid; mandibles simple except in the subgenus *Gnathias*; legs ordinary in both sexes; inner orbits of male subparallel, the face broad*Nomada*
- Maxillary palpi 5-jointed; marginal cell blunt at the apex and remote from the costa, the second submarginal cell receiving the first recurrent nervure very near its end; color entirely black except for brownish stains on the legs in the male; pygidium in the female elongate acuminate, and in the male elongate spatulate with the base constricted; mandibles deeply bidentate; legs very heavy, the last four femora of the male incrassate; inner orbits of male strongly converging above so that the lateral ocelli are distant from the eyes less than their own diameter, the face narrow*Viereckella*

Genus **Nomada** Scopoli, 1770

KEY TO THE NEBRASKA SUBGENERA

- Anterior coxae simple, rarely with short, indistinct spines (*Nomada* spp.) or tiny tubercles (*Heminomada* spp.); abdomen usually very minutely or not distinctly punctured.
- Vertex and mesoscutum more or less roughened by punctures; male never entirely black nor female black with a red abdomen.
- Mandibles simple.
- Apex of male bifid or notched, or at least terminally truncate with a slight median emargination; antennal joint 3 of

both sexes distinctly though sometimes but slightly shorter than 4, rarely as long as or longer than 4.

Head and thorax of female without yellow ornaments, except that sometimes there are small yellow spots on the lower corners of the face, but red with the sutures, depressed and concealed portions black, the basal abdominal tergites often with usually interrupted bands, these often reduced to lateral spots or the abdomen is entirely immaculate; male usually without entire and continuous yellow bands on tergites 1-6 but often with lateral spots, or if with continuous bands these are usually more or less emarginate at extreme sides posteriorly and that on 5 has lateral spots nearly or quite cut off by the emarginations*Nomada*
(Type *Nomada ruficornis* L.)

Head and thorax of female almost always with yellow ornaments, these very rarely lacking, usually on a black ground color, the abdominal tergites with mostly continuous yellow bands but these sometimes interrupted on tergites 1-3; male with entire and continuous yellow bands on abdominal tergites 1-6 except that the band on 1 is sometimes interrupted or lacking, the band on tergite 5 without isolated or nearly isolated lateral spots*Heminomada*
(Type *Nomada obliterata* Cresson)

Apex of male rounded and entire; antennal joint 3 of the female usually longer than or at least equal to 4, rarely a little shorter, sometimes subequal to or shorter than 4 in the male (*Phor* spp.).

Head and thorax of female almost always with yellow ornaments, and almost always of a black ground color, rarely red (e. g., *asteris*); antennal joint 3 of male exceeding 4; abdominal maculations yellow, usually forming continuous bands, rarely cream color.

Holonomada

(Type *Nomada superba* Cresson)

Head and thorax of female without yellow ornaments but red with the sutures, depressed and concealed portions black; antennal joint 3 of male shorter than 4; abdominal maculations whitish, forming widely interrupted bands or lateral spots*Phor*¹
(Type *Nomada integerrima* D. T.)

¹Although not included in the Nebraska fauna the subgenus *Phor* is included in the above table for the sake of completeness.

Mandibles bidentate; head and thorax of female red, with the sutures, depressed and concealed portions black; apex of male notched*Gnathias*

(Type *Nomada bella* Cresson)

Vertex and mesoscutum smooth and shining; male entirely black, female with head and thorax black and abdomen wholly red; apex of male rounded and entire; mandibles simple; posterior femora of male with a tooth beneath at base*Melanomada*

(Type *Nomada grindeliae* Cockerell)

Anterior coxae with strong pubescent spines, longer in the female; abdomen usually very distinctly punctured.

Antennae of male peculiar, sharply bicolor at least basally, being yellow below and blackish above, the scape robust, joint 4 attached obliquely to and very much longer than 3, usually nearly =5+6, 5 distinctly spined above, 6-9 short, distinctly crenulated above, 10-13 heavier and longer, straight, apical joint acutely pointed; antennae of female ordinary but joint 3 shorter than 4.

Female red, with sutures, depressed and concealed portions black, the abdomen finely but usually quite distinctly punctured, the margins of the segments not reflexed; antennae of male with a pale annulus, and the apex of the male strongly notched.

Nomadula

(Type *Nomada articulata* Smith)

Female black, with red and yellow ornaments, the whole body strongly and coarsely punctured, the abdomen with the margins of the tergites conspicuously reflexed; antennae of male without a pale annulus, and the apex of the male slightly notched.

Centrias

(Type *Nomada erigeronis* Robertson)

Antennae of both sexes ordinary, joint 3 exceeding 4, that of the male not sharply bicolor, the scape slender, the flagellum not spined nor crenulated nor the apical joint acutely pointed; black, with yellow and red ornaments; strongly punctured; apex of the male usually bifid*Micronomada*

(Type *Nomada modesta vegana* Cockerell)

Subgenus *Nomada* Scopoli, 1770.

KEY TO THE NEBRASKA SPECIES

Females

Joint 3 of antennae about one and one-third times as long as 4; propodeum with the sides red and covered with a peculiar appressed

- silvery sericeous pubescence, the enclosure abruptly black and glabrous; insect dark red, the depressed and concealed portions black; 8-9.5 mm. *adducta*
- Joint 3 of antennae not longer than 4, usually distinctly shorter; sides of propodeum without peculiar appressed sericeous pubescence..1
1. Joint 3 of antennae conspicuously shorter than 4, distinctly less than one-half its length; lower anterior orbits usually narrowly yellow or yellowish; abdomen usually with small yellow spots on sides of tergites 2 and 3, these sometimes wanting; insect red, depressed and concealed portions black; 6-7 mm. *taraxacella*
 1. Joint 3 of antennae over one-half as long as 42
 2. Apical margins of abdominal tergites 1-4 with narrow but very distinct black bands contrasting with the otherwise chiefly red abdomen; head and thorax uniform light red, merely with a little black in the thoracic sutures; joint 3 of antennae slightly but distinctly more than one-half as long as 4; 8 mm. *nigrofasciata*
 2. Apical margins of abdominal tergites without distinct contrasting narrow black bands, but sometimes with more or less suffused blackish ones (*e. g., velutina*)3
 3. Abdomen red without yellow spots even on sides of tergite 2; joint 3 of antennae nearly as long as 4.....4
 3. Abdomen with yellow spots on the sides of some of the tergites, at least on sides of 2, these spots rarely suffused (*e. g., angulata*); joint 3 of antennae often decidedly shorter than 47
 4. Mesoscutellum crested, deeply bilobed; vertex and mesonotum coarsely punctured; sides of propodeum with long dense erect silvery hair; 7 mm. *bilobata*
 4. Mesoscutellum low, flattish, not distinctly bilobed; vertex and mesonotum more finely punctured; sides of the propodeum with the hair thin, or if rather dense of an ochreous color (*e. g., ochrohirta*)5
 5. Clypeus smooth, very finely and rather feebly punctured; apex of hind tibiae with a pair of large stout curved black bristles; mesoscutum red without a complete median black line; face without a distinct black spot; propodeum red with a blackish spot at apex of enclosure; scape without black hairs; 7 mm. *bisetosa*
 5. Clypeus closely and strongly punctured; apex of hind tibiae with a row of short straight black bristles or setae; mesoscutum with a broad median black line; face with a large oval black spot about antennal bases which encroaches downward in the cly-

- peal sutures; propodeum black with a broad red stripe on each side of the middle6
6. Scape, sides of face, clypeus, labrum, legs, sides of abdominal tergites 3-6 and disk of tergite 5 bearing conspicuous abundant long black bristles, the hair of occiput and mesonotum pale heavily intermixed with black bristles; clypeus less strongly punctured; 8.5 mm.*nigrociliata*
6. Scape, sides of face, clypeus, labrum, cheeks, occiput, mesonotum and sides of propodeum with bright ochreous hair, a very few dark bristles on the sides of the face, legs and the sides of abdominal tergites 3-6, but these all inconspicuous; clypeus more strongly punctured; 7.5 mm.*ochrohirta*
7. Apex of fifth abdominal tergite with a broad much depressed velvety area, the lateral sides of which are distinctly, often deeply, pitted, the apical margin transverse; abdomen dark red, always with large pyriform yellow lateral spots on tergite 2, smaller ones almost always on 3, usually smaller subdiscal spots on 4, 5 always with a broad yellow band over and sometimes down the sides of the depressed area, nearly encompassing it; propodeum wholly red; 8 mm.*depressicauda*
7. Apex of fifth abdominal tergite without a broad much depressed laterally pitted velvety area8
8. Apical margin of tergite 5 somewhat produced medially, so as to form an obtuse angle in profile, not bearing a distinct white terminal fringe, the tergite toward apex more or less distinctly flattened or reflexed but not distinctly depressed or pitted, this flattened area more or less distinctly pruinose in certain lights. 9
8. Apical margin of tergite 5 transverse and bearing a distinct and sometimes dense terminal fringe of white hair or tomentum, but bearing no flattened or reflexed area with the surface pruinose. 10
9. Tergite 5 with a broad flattened distinctly pruinose apical area, subdivided into a deltoid central and two trapezoidal lateral flattened areas in different planes, and above this pruinose area a yellow bar; color paler red, the apical margins of tergites 1-4 with broad diffused blackish bands and narrowly smooth; wings less darkened; hind basitarsi red with the hair within golden, broadly edged with black on anterior margin; 7 mm.*velutina*
9. Tergite 5 with a narrow somewhat reflexed and flattened thinly pruinose apical area, not subdivided by flattened areas in different planes, the tergite without yellow; color darker red, the apical margins of tergites 2-4 broadly smooth and shining, red; wings distinctly darker; hind basitarsi black with the hair within gray very broadly edged with black bristles on anterior margin; 7 mm.*angulata*

10. Larger species, 8-8.5 mm. long11
10. Smaller species, 5-7 mm. long12
11. Pygidium covered with dense long appressed hair above; fringe of white hair on apical margin of tergite 5 erect and very conspicuous; propodeum black with a broad red band on each side; metanotum black; mesoscutum and pleura red suffused with dusky; apical margin of tergite 1 not distinctly blackish; 8.5 mm.*vicinalis*
11. Pygidium above much less densely haired, the hairs short and inconspicuous; fringe of white hair on apical margin of tergite 5 much shorter and less conspicuous; propodeum red except a small black spot at extreme apex of enclosure; metanotum largely red; apical margin of tergite 1 blackish; 8-8.5 mm.*cressonii*
12. Abdomen immaculate red except for a small yellow spot on sides of tergite 2; joint 3 of antennae three-fifths as long as 4; size very small, 5 mm.*minuta*
12. Abdomen red but usually with distinct spots on sides of tergites 2 and 3; size larger, 6-7 mm.13
13. Joint of antennae about four-fifths as long as 4; lower corners of face yellow or yellowish; pygidial area more rounded; a transverse spot on tergite 5, which may be broken in two, in addition to the lateral marks on tergites 2 and 3 and rarely on 4 also; 6-7 mm.*illinoensis*
13. Joint 3 of antennae only about three-fifths as long as 4; lower corners of face red and but rarely even suffused with yellowish; pygidial area somewhat truncated at apex; no yellow on abdominal tergites 4 and 5 but usually with lateral marks on 2 and 314
14. Propodeum red, the suture with the metapleura broadly black; 6-7 mm.*sayi*
14. Propodeum black with the angles and the base of the enclosure red; 7 mm.*propinqua*
- (The females of *pallidipicta*, *aprilina*, *bicrista*, *salicicola* and *parallela* are unknown or unrecognized.)

Males

Joint 3 of antennae about one and one-third times as long as 4; sides of propodeum covered with a peculiar appressed silvery sericeous pubescence; head and thorax black with the clypeus, mandible bases, labrum and lateral face marks, yellow, an orbital ring, the mesoscutellum, metanotum, most of mesopleura, usually large areas on the sides of mesoscutum, and legs, red; abdomen wholly red; 6-9 mm.*adducta*

- Joint 3 of antennae shorter than 4; sides of propodeum without peculiar appressed sericeous pubescence1
1. Joint 3 of antennae less than one-third as long as 4; flagellum conspicuously denticulate beneath, especially on antennal joints 6-11 which are very concave medially beneath and apically produced into a prominent denticle; antennae black above, bright red beneath, scape in front yellow; head and thorax black, the clypeus, labrum, mandibles, lateral face marks, tubercles and spot beneath, and usually lines on collar and spots on mesoscutellum, yellow; abdomen black with broad yellow bands more or less narrowed medially, the apical margins of the segments reddish; 7-8 mm.*taraxacella*
1. Joint 3 of antennae distinctly more than one-third as long as 4; flagellum not conspicuously denticulate beneath, though sometimes very feebly denticulate or sinuate beneath (e. g., *parallela*, *bicrista*).2
2. Joint 3 of antennae about one-half as long as 4.....3
2. Joint 3 of antennae distinctly over one-half as long as 4, from three-fifths to four-fifths its length11
3. Abdomen deep black with little or no reddish color4
3. Abdomen mainly or largely reddish5
4. Maculations cream color; apex at most but very feebly notched, sometimes subentire; only the four basal joints of flagellum above black; basal nervure interstitial with transverso-medial on the basad side; 6-7 mm.*pallidipicta*
4. Maculations bright lemon yellow; apex deeply bilid; flagellum wholly black above; basal nervure much basad of transverso-medial; 7 mm.*aprilina*
5. Mesoscutellum strongly bilobed6
5. Mesoscutellum not strongly bilobed, usually only feebly subbilobate.7
6. Mesoscutellum acutely bilobed; black of face extending in a broad sutural line from antennal bases downward between the yellow lateral face marks and the yellow supraclypeal spot and upper clypeus; tergites 5 and 6 without yellow bands; 6-7 mm.*bilobata*
6. Mesoscutellum more obtusely bilobed; yellow lateral face marks not or not distinctly separated from the clypeus and supraclypeal spot by black sutural lines; tergites 5 and 6 with complete or narrowly interrupted, though partially concealed, yellow bands on the extreme bases of the tergites; 8 mm.*bicrista*
7. Abdomen paler red, the basal half of tergite 1 usually not black right across, but usually with a broad medially interrupted yellow band across the middle, this sometimes obscure or want-

- ing, tergite 2 with large subpyriform yellow spots, 3 with smaller spots, 4 and 5 with spots often obscure or wanting, 6 with a transverse spot; size larger, 7-10 mm.8
7. Abdomen darker red, the basal half of tergite 1 black right across and only infrequently with yellow markings, tergites 2 and 3 spotted as above, 4 and 5 usually unspotted, transverse spot on 6 often divided; size smaller, 6-8 mm.10
8. Apex rather narrow, feebly bifid; mesoscutum black with two red lines; superior orbits black; mesopleura and propodeum wholly black, anterior legs yellowish in front, reddish behind, the bases of the femora with a black spot; 9-10 mm. *vicinalis*
8. Apex broader, strongly bifid; mesoscutum red with a median black line; superior orbits red; mesopleura mainly red varied with black. 9
9. Propodeum black; mesoscutellum more broadly subbilobate; flagellum red with a fuscous line above; red color on mesoscutum, pleura and mesoscutellum brighter; anterior legs yellow, brighter at the knees, bases of the femora behind with a black spot; face below antennae yellow; 7-9 mm.*cressonii*
9. Propodeum red with a black median line; mesoscutellum more acutely subbilobate; flagellum red with only the tip of the scape and four basal joints blackish above; red color on mesoscutum, pleura and mesoscutellum darker, less bright; anterior legs red, yellowish at the knees, scarcely any black at bases of femora behind; face below antennae with black sutural lines extending from bases of antennae nearly to lateral apices of clypeus; 9 mm.*depressicauda*
10. Mesoscutellum black varying to red, or red or yellow spotted; mesoscutum black, not obviously stained with red; mesopleura with only a small yellowish or reddish spot below tubercles, or none; smaller, 6-7 mm.*sayi*
10. Mesoscutellum red; mesoscutum with large lateral areas red or reddish; mesopleura usually with large red spots; larger, 8 mm. *propinqua*
11. Abdomen red with large yellow lateral spots on tergite 2, sometimes connected to form a band, similar spots on 3, frequently small lateral spots on 4 and occasionally on 1, 5 usually immaculate, 6 usually with a band or two spots; 6-8 mm. *illinoensis*
11. Abdomen chiefly black, the apical margins of tergites 2-4 sometimes suffused with reddish, 2-6 with bright yellow bands, sometimes more or less constricted anteriorly or interrupted on middle of 2-4 but always complete on 5 and 6, a complete band on 1 yellow, stained with reddish or wholly reddish, those on 2-5 with more or less emargination on the lateral posterior margin, often cutting through on 512
12. Anterior orbits converging below, the interorbital width at narrowest

- point fully one-seventh less than width at vertex; mesoscutellum black with two yellow spots; abdominal bands on 2-4 anteriorly constricted or interrupted medially; 5.5-7 mm. *salicicola*
12. Anterior orbits subparallel, the interorbital width at narrowest point scarcely one-tenth less than width at vertex; mesoscutellum red; abdominal bands all complete and not constricted on middle of anterior margin; 7 mm. *parallela*
- (The males of *nigrofasciata*, *bisetosa*, *nigrociliata*, *ochrohirta*, *velutina*, *angulata*, and *minuta* are unknown or unrecognized.)

Nomada (Nomada) adducta Cresson.

1878. *Nomada adducta* Cresson, *Trans. Am. Ent. Soc.*, VII, p. 73, ♂.

1905. *Nomada adducta* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 74, ♂.

This species was described from a unique male specimen collected in Colorado, and has not since been recognized from elsewhere. In the vicinity of Lincoln, Nebraska, it is a not uncommon visitor at the flowers of *Helianthus annuus* and *Solidago rigida*, from latter August well into September. The writer has before him a series of seven males and twelve females, and as the latter sex is undescribed the following description of it is appended:

♀. Length 8-9.5 mm. Dark red, the tips of the mandibles, area above insertion of antennae, depressed portion of pronotum, prosternum, lower metapleural plate and sometimes upper also, posterior coxae behind, anterior and posterior mesoscutal sutures and sometimes more or less of a discal spot which may be extended to form a feeble median band, enclosure of propodeum, last four tarsi more or less and sometimes posterior face of hind tibiae, black or blackish. Antennae red with the flagellum, especially above, more or less black or blackish, joint 3 about one and one-third times as long as 4. Body almost nude except for a peculiar, appressed, silvery, sericeous pubescence which covers the propodeum except the enclosure, the sides of the apical abdominal segments minutely and sparsely pale pubescent. Head finely and strongly punctured, the mesoscutum and mesopleura with fine, shallow, crowded punctures which cause the surface to have a distinct satiny sheen. Mesoscutellum prominent but with only a faint medial depression. Wings hyaline, their apical margins rather narrowly darkened, the nervures fuscous, stigma brown, basal nervure interstitial with transverso-medial. Tibial spurs simple, reddish testaceous. Abdomen dark red, closely and strongly but rather finely punctured, sometimes with a dusky suffusion above medially, the apical margin of tergite 5 with a broad silvery tomentose fringe.

Allotype.—Lincoln, Nebraska, August 27, 1900, on *Helianthus annuus* (J. C. Crawford), ♀.

Nomada (Nomada) taraxacella Cockerell.

1903. *Nomada ultima taraxacella* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, pp 589-90, ♀.

1905. *Nomada taraxacella* Cockerell, *Bulletin* 94, Colorado Exp. Sta., p. 74, ♀.

1911. *Nomada taraxacella* Cockerell, *Proc. U. S. Nat. Mus.*, XLI, p. 238, ♀ (part), not ♂.

A series of two females and four males collected in May in Sioux county, Nebraska, by L. Bruner, are referable to *N. taraxacella* Cockerell. A fifth male before the writer is from Pullman, Washington, collected May 14, 1898, and is not different in any way from the Nebraska series, although this is getting pretty near to the range of *N. ultima*, and the specimen may really be the male of that alleged species. One of the two females is perfectly typical of *taraxacella*, agreeing with Cockerell's diagnosis in every detail and identical with an autotype in the U. S. National Museum, but the other is aberrant in lacking the abdominal spots, though the short third antennal joint, yellow inner orbits, etc., show that it is correctly referable to that species. As was originally considered by Cockerell, probably *taraxacella* and *ultima* are but variations of one species, the only difference between them being the lack of the three black mesoscutal stripes in *taraxacella*, but this point can be definitely determined only when a series is available for study. Both are closely related to *N. erythraea* D. T., but that form seems distinct in its erect black hair on the inner side of the hind basitarsi. Thus considered, *N. taraxacella* has a range from New Mexico, Colorado and western Nebraska west to Washington.

The series of four females and eight males from Colorado, bearing Baker's No. 2075 and now in the U. S. National Museum, and all referred to *N. taraxacella* by Cockerell (*Proc. U. S. National Museum*, XLI, p. 238), is composite, only one of the females being really *taraxacella* (the one mentioned as "normal"), the other two specimens (one female is missing) labelled *taraxacella* var. by Cockerell representing a distinct

species, characterized at once by having antennal joint 3 nearly = 4, and no yellow on inner lower orbits or sides of abdomen (in *taraxacella* joint 3 is only about one-third the length of 4, and the inner lower orbits and spots on sides of abdomen are usually yellow), and other minor differences. Both females bearing Baker's No. 2179 are *taraxacella* as determined by Cockerell. The eight males are probably referable to *N. modocorum* Cockerell, since they agree in general with his characterization of that species and were not satisfactorily separable from it after comparisons by Cockerell himself (*l. c.*, p. 238), and the two females probably go with them and are separable from *N. ultima* by the longer third antennal joint, *ultima* agreeing in this respect with *taraxacella*. These males differ from *taraxacella* males at once in the longer third antennal joint which is one-half as long as the fourth (less than one-third as long in *taraxacella*) and average larger size. The real male of *taraxacella*, which has never been described, may be recognized by the appended diagnosis:

♂. Length 7-8 mm. Black; the clypeus, labrum, mandibles except tips, narrow lateral face marks which attain level of antennae, tubercles and spot beneath them, usually lines on collar and spots on mesoscutellum (the latter sometimes red), bright yellow. Antennae black above, bright red beneath, scape in front yellow, joint 3 less than one third as long as 4, the flagellum conspicuously denticulate beneath, especially on joints 6-11 which are very concave medially beneath and apically produced into a denticle on each joint. Head and thorax coarsely and closely punctured, rather copiously white haired, the hair of thorax above strongly tinged with ochreous. Tegulae red. Wings subhyaline, broadly darkened apically, a clear spot beyond submarginals, nervures and stigma brownish fuscous, basal nervure interstitial with transverso-medial on the basal side. Legs reddish, the coxae, femora and tibiae behind more or less black. Abdomen black with broad complete yellow bands, more or less narrowed medially on tergites 1-6, the apical margins of these tergites and the base of the second tergite red or stained with reddish. Venter yellow, the sternites stained with red at the sides and with more or less extensively black basal margins, sternite 1 with a large black cordate mark. Apex reddish brown, slightly but distinctly notched.

Allotype.—Sioux county, Nebraska, May (L. Bruner), ♂.

These males have a remarkable resemblance to *N.* (*Hemi-*

nomada) *fragilis* Cresson, both in the proportion of the antennal joints and in the yellow markings, and were at first referred to that species. The coloration of the abdomen is very different in the two species, however. It is really closely related to *N. modocorum* Ckll., but differs in the shorter third antennal joint. *N. subangusta* Ckll., from southern California, is also very close, but compared with the type of that species in the U. S. National Museum it may be separated at once by the shorter third antennal joint, *subangusta* having it even longer than in *modocorum*, at least two-thirds as long as the fourth. The supposed males of *N. rhodosoma* Ckll. (*Proc. Acad. Nat. Sci. Phil.*, 1903, p. 571) are also related.

Nomada (Nomada) nigrofasciata n. sp.

♀. Length 8 mm. Bright red, the tips of the mandibles, a line in the depression of pronotum, a spot before tubercles, the mesopleural sutures, the lower metapleural plate, depressed areas on extreme sides of mesoscutellum and metanotum, and distinct bands on apical margins of abdominal tergites 1-4, black. Sides and lower corners of face, together with labrum, usually yellow or more or less suffused with that color. Joint 3 of antennae about one-half as long as 4 (proportion of 4.5:8.5), viewed from above nearly as long as 4. Extreme sides of abdominal sternites 3-5 sometimes with very small yellow spots, especially on 5, and abdominal tergite 5 usually with a median yellow spot, all these spots sometimes wanting. Pygidium narrowly rounded. Head and thorax finely rugose punctate. Body practically devoid of pubescence, very thin and short hair on cheeks, occiput and tip of abdomen, white, tinged with ochreous on occiput and with tufts of curled blackish bristles at tip of abdomen ventrally. Basal nervure much basad of transverso-medial.

Type.—Bad Lands at mouth of Monroe canyon, Sioux county, Nebraska, June 7, 1901, on *Homalobus tenellus* (M. Cary), ♀.

Paratypes.—Warbonnet canyon, Sioux county, Nebraska, June 3, 1901, on *Symphoricarpos occidentalis* (M. Cary), 1 ♀; do., June 4, 1 ♀; do., June 8, 1 ♀.

This species is a member of the *nigrocincta* group. It is most closely related to *N. parkardiella* Ckll., but differs in smaller size, lack of a black median band on mesoscutum and propodeum, lack of black at base of abdomen and about antennal bases and ocelli, femoral bases with little or no black, the band on apical margin

of tergite 4 black like those on 1-3, lack of yellow spots on sides of abdominal tergites 2 and 3 and on disk of 4, and the usual presence of a yellowish suffusion or color on the sides and lower corners of the face and on the labrum. From *N. nigrocincta* Smith, it differs in much the same color characters (*i. e.*, the lack of black lines on mesoscutum and propodeum, black spots on clypeus, about ocelli and on flagellum above and black areas on base of abdomen and bases of femora) and also in the practically bare sides of the propodeum. All three species fly in June. *N. pulsatillae* Ckll. is also related, but an autotype in the U. S. National Museum differs in the longer third antennal joint, much darker red color with the abdominal bands less intensely black, more dusky, the complete lack of yellow on the face, labrum and abdomen, the face and scape with blackish bristles, and a fronto-ocellar spot, mesoscutal line, sides and base of propodeum, and whole of metanotum and metapleura, black; also, it flies earlier in the season than the above species.

***Nomada (Nomada) bilobata* n. sp.**

♀. Length 7 mm. Color dark red, with the mandible tips, antennae above, area from antennal bases to and including ocelli, cheeks behind, pronotum except collar, median line on mesoscutum, mesoscutal sutures, metapleura, propodeum except two large red lateral spots which involve most of the enclosure, depressed areas at extreme sides of mesoscutellum and metanotum, the coxae and bases of femora behind, apex of posterior tibiae behind and all of posterior tarsi, and a small trident-shaped mark at the base of the abdomen, black or blackish. Antennae beneath bright red on the first three joints, darker red on the following joints, joint 3 about three-fourths as long as 4. Clypeus strongly and densely punctured, the vertex and mesoscutum with very coarse, strong punctures. Mesoscutellum crested and deeply bilobed. Pubescence of vertex and mesonotum very short, sparse and pale ochreous, that on cheeks and pleura similarly short and thin but of a white color, the sides of the propodeum abruptly with long, dense, erect, silvery hair, the legs with fine appressed silvery pile, the hair on the inner sides of hind basitarsi pale. Tibial spurs pale and not distinctly pectinate. Tubercles and tegulae paler, almost coppery red. Wings heavily darkened on a broad apical band and in the marginal, submarginals and discoidals among the cells, a clear spot beyond submarginals. Third submarginal cell much narrowed above, and the basal nervure very slightly basad of transverso-medial nervure. Abdomen dark coppery red, concolorous with the tubercles and tegulae

but of a paler tint than the rest of the red parts of the head and thorax, wholly unmarked, the segments distinctly and rather strongly punctured both on the tergum and venter, the apical margins of tergites 1-4 distinctly depressed and reflexed, marginally and ventrally provided with short, thin, pale hair, the apex with ventral tufts of curved black bristles.

♂. Length 6-7 mm. Head black, with the clypeus, a large spot on supra-clypeus, which sometimes varies to reddish, lateral face marks which extend upward nearly to level of insertion of antennae where they merge into a red orbital line and which are separated from the concolorous upper part of the clypeus and supra-clypeal spot by broad black sutural lines extending down from the insertion of antennae, labrum, and mandibles except tips, yellow. A red line extends from the end of the yellow lateral face marks along the orbital margin to the summit of the vertex and there is a short red stripe along posterior inferior orbits. Thorax black, with the collar, large lateral areas involving most of mesoscutum except a median line, whole of mesoscutellum, a line on metanotum, and a large spot involving the lower two thirds of the mesopleura which sometimes bears a yellow spot of variable size on the anterior margin, red. Antennae dark reddish brown, above with a black line which narrows toward the apex, below with the scape strongly suffused with yellow, joint 3 one-half as long as 4, joint 4 and the next four or five following very feebly denticulate externo-ventrally. Mesoscutellum deeply and acutely bilobed. Face, labrum, cheeks, pectus, coxae, pleura and angles of sides of propodeum with silvery hair. Tubercles and tegulae coppery red. Wings hyaline, a narrow apical band and the distal half of the marginal cell somewhat darkened, the nervures and stigma brown, the basal nervure distinctly basad of the transverso-medial, the third submarginal usually distinctly narrowed above, sometimes to a point. Abdomen with the ground color dark brownish red, the tergites with their apices more or less strongly suffused with blackish, this sometimes involving much of the segment, base of tergite 1 black right across, tergites 2-4 with yellow lateral spots, large and subpyriform on tergite 2, smaller and linear on 3, very tiny on 4, some or all of these spots often almost obliterated by a strong brownish red suffusion. Apex strongly notched. Legs red, suffused with yellowish on front face of anterior femora and tibiae, the posterior face of the coxae trochanters and femora, especially posterior femora, blackish.

Type.—West Point, Cuming county, Nebraska, June 22, 1905 (H. S. Smith), ♀.

Allotype.—Type lot, ♂.

Paratypes.—Type locality, 1 ♂; Cedar Bluffs, Saunders county, Nebraska, 1 ♂; Lake Geneva, Wisconsin, June 22, 1901, on *Sambucus canadensis* (W. D. Pierce), 1 ♂; Fargo, North

Dakota, June 14, 1911, on *Brassica campestris* (O. A. Stevens, Nos. 2278, 2285, 2286), 3 ♀; do., July 21, 1912, on *Apocynum androsemifolium* (O. A. Stevens, No. 3375), 1 ♀; Jamestown, North Dakota, June 2, 1912, on *Senecio purshianus* (O. A. Stevens, No. 3316), 1 ♀; Valley City, North Dakota, August 13, 1912, on *Chrysopsis* (O. A. Stevens, No. 3628), 1 ♀.

A very distinct species, distinguishable in the female by the immaculate coppery red abdomen, the crested and bilobed meso-scutellum, the coarse puncturation of the vertex and mesonotum, the long hair on sides of propodeum, etc., and in the male by the deeply bilobed meso-scutellum, narrow and strongly notched apex, red areas on mesonotum and pleura, antennal joint 3 about one-half as long as 4, and abdomen with the ground color brownish red with the basal half of tergite 1 black right across and the apices of the tergites largely blackish. *N. adducta* Cresson is somewhat allied, but is easily separated by the characters given in the table. The female superficially resembles *N. (Nomadula) fricscana* Ckll., as represented by an autotype in the U. S. National Museum, having the same deeply bilobed meso-scutellum, coarse puncturation, reflexed apical margins of abdominal tergites, long hair on propodeum, pale tomentose band on apex of tergite 5, etc., but that species is larger, has antennal joint 3 shorter, sides of tergite 2 with yellow spots and pale yellowish bands on tergites 4 and 5, etc. The anterior coxae of *N. bilobata* are not spined, but the spine is represented by a blunt tubercle. The six females from North Dakota agree with the type ♀ except that four of them have the red brighter and contrasting more with the black markings, and especially is the abdomen of a brighter coppery red. Three of these four have the red areas of the enclosure encroaching somewhat on the sides of the propodeum.

Nomada (Nomada) bicrista n. sp.

♂. Length 8 mm. Black, the clypeus, a medio-basal spot on supra-clypeus, broad triangular lateral face marks which are not distinctly separated from the concolorous clypeus and supra-clypeal spot by black sutural lines and which extend upward along orbits distinctly beyond level of insertion of antennae, labrum, mandibles except tips, scape in

front, a band on abdominal tergite 2 which is broad laterally but constricts medially and is narrowly medially interrupted, broadly interrupted narrow bands on tergites 3 and 4 which are nearly concealed under the apices of the preceding tergites, a similarly concealed but narrowly interrupted band on tergite 5, a narrow but exposed and complete one on 6, and a spot on sternite 6, bright yellow. Antennae above blackish, beneath dark reddish brown, joint 3 about one-half as long as 4, joints 4-8 with a row of feeble denticles along the outer side on the line of demarcation of the two color shades of the antennae. A stain on sides of vertex, a postorbital line, collar, mesoscutum except a median line, mesoscutellum and metanotum except on the depressed lateral portions, and a large spot involving most of the mesopleura, red or reddish. Tubercles, tegulae and legs coppery or reddish testaceous, the legs tinged with yellowish on anterior knees and front face of tibiae, the coxae, trochanters and more or less of the femora behind more or less suffused with blackish, the hind femora all blackish behind except the knees. Face, labrum, cheeks, pleura, pectus and coxae with abundant shining silvery hair, mesonotum and sides of propodeum with thin pale hair, legs sparsely pale haired. Mesoscutellum rather strongly but quite broadly bilobed. Abdomen, except the yellow bands and a subterminal broad reddish band on tergite 2, mostly reddish dusky or blackish owing to the deep infuscation of the apical margins of the tergites. Apex red, strongly notched. Wings hyaline, the marginal cell and broad apical margin darkened, nervures and stigma fuscous, basal nervure basad of transverso-medial nervure, third submarginal cell much narrowed above, only one-half as broad as the second.

Type.—Bellevue, Sarpy county, Nebraska, June 10, 1906 (R. H. Wolcott), ♂.

Obviously this species is very closely related to *N. bilobata* ♂, just described, but the distinctly larger size, much less acutely bilobed mesoscutellum, longer and broader lateral face marks with little black extending down in the sutures from the point of insertion of antennae, darker and differently maculated abdomen, etc., seem to present differences of specific value. The two apparently fly at the same season.

Nomada (Nomada) aprilina n. sp.

♂. Length 7 mm. Black with bright lemon yellow markings; the clypeus except a narrow margin on basal half, labrum, mandibles except tips, line under eye, small triangular lateral face marks produced upwardly in an orbital line nearly to the level of insertion of antennae, scape in front, a tiny spot on lower anterior margin of mesopleura and abdominal maculations, bright yellow. Antennae black above, the flagellum beneath

bright brownish red, joint 3 four-sevenths as long as 4. Face feebly punctured, minutely striate, vertex and thorax very coarsely and densely punctured. Tubercles pale yellowish, the anterior half with a large black spot. Tegulae red. Wings subhyaline, narrowly darkened apically, a clear area beyond submarginals, nervures black, stigma very dark brown. Basal nervure much basad of transverso-medial, the third submarginal but a shade narrower above than the second. Mesoscutellum bilobate, each lobe with a small red spot. Base of enclosure of propodeum finely irregularly wrinkled. Legs yellowish red and black, the latter color involving the coxae, posterior face of first four trochanters and all of posterior trochanters, large areas on posterior face of first four femora and tibiae and all of posterior femora and tibiae except the knees and the apices of the tibiae. Hair on inner side of hind basitarsi pale yellowish gray. Vertex, occiput and thorax above with rather long, copious, erect, pale ochreous hair, the cheeks, pleura, trochanters and femora and sides of propodeum with similar white hair. Abdominal tergite 1 black with a broad obscurely reddish band which is so deeply squarely incised medially as to leave only a very narrow connecting line and each broad lateral portion bears a median suboval black spot; yellow bands of tergites 2-5 broadly and deeply medially emarginate on anterior margin and narrowly interrupted medially by a reddish stain, that on 2 with a small indentation anteriorly on each extreme side, those on 3-5 more or less distinctly emarginate on middle of posterior margins of each lateral half, the emargination cutting through on 5 and isolating a lateral spot, 6 with an entire transverse spot. Apex broad, deeply bifid at tip. Venter of abdomen mostly black, sternite 1 reddish brown except for a median cordate black mark, sternites 2-4 with curved brownish marks on the disk.

Type.—Lincoln, Nebraska, April 18, 1903, on *Ribes gracile* (M. H. Swenk), ♂.

This species agrees very closely with the description of *N. pallidella* Ckll., but that species has the basal nervure interstitial with the transverso-medial nervure, though on the basad side, the third submarginal cell greatly narrowed above, tergite 1 with a broadly interrupted yellow band, tergites 2-6 with the yellow bands complete, etc. It is very close, also, to *N. ruidosensis* Ckll., but compared with the type of that species in the U. S. National Museum (Cat. No. 13175) it differs in having the apex strongly notched (very slightly so in *ruidosensis*), the basal nervure much basad of transverso-medial (interstitial in *ruidosensis*), and the legs yellowish red to brownish with much more

black on the femora and tibiae (red with only the basal joints black in *ruidosensis*); the first abdominal tergite of *aprilina* has a distinct nearly interrupted broad obscurely reddish band which is barely indicated in *ruidosensis* on close inspection in strong light, and the bands on tergites 3-6 are less deeply emarginate behind laterally in *aprilina* than in *ruidosensis*, but the first of these is a variable character and *ruidosensis* sometimes has an interrupted yellow band more or less developed on tergite 1 as in *pallidella*, at least in some Colorado specimens, while the mesoscutellum sometimes bears yellow spots (see Cockerell, *Bulletin of the American Museum of Natural History*, XXII, p. 438). It is separable at once from *N. simplex* Rob. and *N. salicis* Rob. by the lack of clear yellow color on the legs; it further differs from *simplex* by the deeply notched apex, spotted and bilobed mesoscutellum and non-sinuate flagellum, while from *salicis* it further differs by the longer median flagellar joints, basal nervure basad of transverso-medial nervure, and smaller mesopleural spot. From the somewhat similar but autumnal *N. vicina* Cress., it differs in the coarser puncturation of the head and thorax, the deeply notched apex, red tegulae and lack of yellow maculations on the first abdominal tergite.

Nomada (Nomada) bisetosa n. sp.

♀. Length 7 mm. Bright red, only the tips of the mandibles, internal margins of ocelli nearly coalescing to form a line, extreme hind margins of cheeks, spots in depressions of propleura and prosternum, sutures of mesopleura, lower metapleural plate, spots on bases of coxae behind, spots on middle femora at base, lines on posterior femora and tibiae behind, part of depressed sides of mesoscutellum, and a tiny spot at extreme apex of enclosure on propodeum, black. Antennae bright red, joint 3 three-fourths as long as 4. Clypeus finely and rather weakly punctured, the punctures not crowded but separated about the width of one. Vertex and mesoscutum coarsely and shallowly punctured. Legs bright red, except for the spots already mentioned, the hair on hind basitarsi within shining pale ochreous with many black hairs intermixed along anterior margin, the apex of the hind tibiae with a remarkable pair of large stout curved black setae, the last four tarsi with sparse long black bristles, the hair of the legs otherwise white and very thin. Tibial spurs pale, those on hind tibiae not obviously pectinate. Scape, cheeks, mesonotum, pleura, sides of propodeum and posterior coxae with very

thin and scattered pale hairs, exceedingly short on mesoscutum, somewhat longer and denser on propodeum and hind coxae, the margins of the apical tergites and sternites with thin pale fringes, segment 5 with long black bristles, scattered and straight on tergum but grouped into two curved clumps ventrally. Abdomen immaculate red, tergite 1 impunctate, 2 and following with distinct, though weak and sparse, round punctures except the broad shining impunctate apical margins of tergites 2-4. Sternites 2-4 have the apical margin broadly shining and impunctate, and the middle of 5 is similar but has the surface microscopically tessellate, while its sides and the bases of the other sternites are coarsely but weakly punctured. Wings slightly yellowish, apically darkened, nervures and stigma yellowish brown, basal nervure interstitial with transverso-medial nervure but distinctly on the basal side, second submarginal much narrowed above, narrower than the third.

Type.—Harrison, Sioux county, Nebraska, June 1, 1910, on *Senecio purshianus* (M. H. Swenk), ♀.

Of the described species this one seems closest to *N. rhodosoma* Ckll., known from California and Nevada, though because of an unfortunate series of chiefly comparative descriptions the real characters of *rhodosoma* are not very apparent in the literature; to be specific, the original description of *N. rhodosoma* is largely based on comparisons with *N. erythraea*, and the same author's diagnosis of *erythraea* is largely comparative with *N. ultima*, while the original description of *N. ultima* is a comparative one with *N. oregonica*, which, finally, is described on a non-comparative basis but which is not a very closely related species. Following out the characters to be gleaned from a careful study of these comparisons and referring these characters to *bisetosa* about the only discoverable difference is that *rhodosoma* has a black stain in the middle of the enclosure which is lacking in *bisetosa*. In the same way, the next most allied species, *N. rhodosomella* Ckll., is based simply upon a comparative description with *rhodosoma*, but from this description it is obvious that *bisetosa* differs from *rhodosomella* in the unstriped mesoscutum, red upper metapleural plate, dark spot on apex of enclosure and somewhat larger size. An actual study of the types of *rhodosoma* and *rhodosomella* in the U. S. National Museum (Cat. Nos. 13167 and 13161, respectively), however, shows that both are distinct from *bisetosa*, differing chiefly in having the clypeus

rather strongly and coarsely punctured (finely and weakly so in *bisetosa*) and the apex of the hind tibiae with several small straight dark setae (two stout curved ones in *bisetosa*); all three are, however, closely related, having the outer margin of the hind tibiae strongly tuberculate, joint 3 of antennae from two-thirds to three-fourths as long as 4, the tibial spurs pale and simple, etc. *N. rubrica* Provancher, as determined by Cockerell, differs in larger size, smooth hind tibiae, three or four small dark bristles at apex of hind tibiae, strongly punctured clypeus, hair on inner side of hind basitarsi golden, etc. In the tibial setae *bisetosa* resembles *N. integerrima* D. T., the type of the subgenus *Phor.* but that species has the third antennal joint longer and the abdomen distinctly maculated with whitish. The largely bright red color, immaculate abdomen, finely and rather sparsely and weakly punctured clypeus, two curved black setae on hind tibiae, pale hairs of scape, etc., afford excellent specific criteria for *N. bisetosa*.

Nomada (Nomada) nigrociliata n. sp.

♀. Length 8.5 mm. Bright red; the tips of the mandibles, a large sub-oval facial spot lying mostly above the level of insertion of antennae and connecting above with a nearly equally large spot surrounding ocelli while below extending narrowly downward in the clypeal sutures and isolating the supra-clypeus as a red spot, the cheeks behind, the prothorax except collar and tubercles, a broad median mesoscutal line, depressed areas at sides of mesoscutellum, metanotum, spots on sides of mesosternum, meta-pleura, propodeum except for two broad red stripes or areas on either side of the middle, bases of anterior coxae, whole of middle coxae, bases and posterior sides of hind coxae, bases of middle and hind trochanters and femora, especially the hind femora, and a prominent trident-shaped mark on extreme base of abdomen, black. Head transversely oval, unusually broad. Antennae wholly bright red, joint 3 at least five-sevenths as long as 4. Clypeus coarsely but very shallowly punctured, vertex and mesoscutum strongly and closely punctured. Legs, except as above mentioned, bright red, the hind basitarsi with golden hair within, the apex of hind tibiae with a row of three small straight black setae. Tibial spurs yellow, simple. Abdomen immaculate red, tergites 3-5 somewhat diffusely infuscated medio-apically, tergite 1 impunctate and shining, 2 and following tergites very finely and feebly punctured or roughened. Pygidium broadly rounded apically, glabrous. Wings yellowish hyaline, broadly darkened along apical margin, nervures blackish, stigma brown.

Basal nervure interstitial with the transverso-medial distinctly on the basal side, second submarginal cell little narrowed above, broader than third. Tegulae yellowish red. Cheeks, pleura, mesonotum, and sides of propodeum with erect, rather long and thin, grayish white hair intermixed with prominent black bristles on mesonotum and mesopleura, the face, scape, labrum, legs and sides of abdominal tergites 3-6, with disk of 5 and apex of sternite 5, bearing abundant, conspicuous, long, black bristles.

Type.—Sioux county, Nebraska, May (L. Bruner), ♀.

This form is a member of the *californiae-latifrons* group, characterized by the broad head, usually black bristles on scape, joint 3 of antennae nearly as long as 4, abdomen without yellow spots, moderate punctures of mesoscutum, etc. It is closest to *N. latifrons* Ckll., described from two female specimens from the Santa Cruz mountains of California, and agrees with that species in the antennal structure, the closely and coarsely punctured clypeus, the golden hair on inner side of hind basitarsi, the pale simple tibial spurs, etc. It is separable from the type of *latifrons* (U. S. National Museum, Cat. No. 13155) by the long, abundant and conspicuous black bristles on the scape, face, labrum, legs and sides of abdominal tergites 3-6 (in *latifrons* the scape, sides of vertex and upper face have a few short, inconspicuous black bristles only, while the legs have the hair pale with only a few inconspicuous black bristles on the hind tibiae and only tergites 5 and 6 have black bristles), the pygidial area broadly rounded, glabrous, coarsely and closely striate-punctate except on the extreme margins along the raised bordering rim (in *latifrons* the pygidial area is apically slightly truncate and provided with closely set pale appressed hair), the apex of the hind tibiae with about three short straight setae (about four long curved ones in *latifrons*), the apical margin of tergite 5 with a narrow thin band of dense whitish tomentum (a broad pale floccus in *latifrons*), the less extensively black hind femora (much over half the posterior face is black in *latifrons*), and the more extensively black sides of propodeum and broad union of the frontal and ocellar black patches (these isolated or connected by two bands enclosing a red spot in *latifrons*). From *N. californiae* Ckll., it differs in possessing a large black facial patch, more black on

propodeum (only a faint median band in *californiac*), a dusky suffusion on tergites 3-5 and more black on hind femora (only a faint stripe behind in *californiac*). Of the red species with the abdomen not spotted which lack the black bristles on the scape, it is closest to *N. corvallisensis* Ckll., differing in the wholly red scape, largely red propodeum, slightly shorter third joint of antennae, etc. The third antennal joint is shorter than in *N. atrof frontata* Ckll., and *N. excellens* Ckll., but is distinctly longer than in *N. astori* Ckll., *N. ultima* Ckll., or *N. robertsonella* Ckll. The *californiac-latifrons-nigrociliata* group differs from *N. clarkii* Ckll., in smaller size, broader head, basal nervure interstitial with or but slightly basad of transverso-medial, etc., from *N. rubrica* Provancher, in smaller size, black hind cheeks, black hairs on scape, etc., from *N. kincaidiana* Ckll., by more black on the head and thorax, from *N. rhodosoma* Ckll., by the median mesoscutal stripe and largely black propodeum. etc.

Nomada (Nomada) ochrohirta n. sp.

♀. Length 7.5 mm. Related to *N. nigrociliata*, just described, and agreeing with the description of that species except in the following particulars: Hair of scape, face, labrum, cheeks, occiput, pleura, mesonotum and sides of propodeum copious though short, and of a bright ochreous color, the legs with the bristles mostly all pale, a very few inconspicuous dark bristles on the sides of the face and more on the sides of abdominal tergites 3-6; punctures of clypeus stronger and rather coarser; apex of hind tibiae with four short straight black setae; nervures black; first abdominal tergite microscopically tessellate; color darker red, the clypeal-supraclypeal suture not black, the black ocellar spot isolated, the mesoscutum trilineate with the lateral lines rather obscure, the metanotum red with the edges and sides black, the trochanters all red, only a short and feeble median line at the base of the abdomen and the apical margins of the tergites scarcely at all infuscated.

Type.—Sioux county, Nebraska, May (L. Bruner), ♀.

This is apparently another member of the *californiac-nigrociliata-latifrons* group, and is closest to *N. latifrons*, closer than is *N. nigrociliata* even, but is distinguished by the bright ochreous hair of vertex, mesonotum, sides of propodeum, etc., and the fewer black bristles on the face and lack of them on the scape. sides of vertex and hind tibiae. From *N. californiac*, as from

N. nigrociliata, it differs conspicuously in the lack of the black hairs of the scape, vertex and mesonotum as well as by the ochreous hair, in having a large black spot about the insertion of antennae which encroaches down in the clypeal sutures (face all red in *californiae*), and in having the middle and hind femora with black on the basal areas behind (lacking in *californiae* except a faint blackish stripe on posterior face of hind femora). From *N. atrofrenata* Ckll., it differs in the shorter third antennal joint (longer than fourth in *atrofrenata*), the largely black posterior face of hind femora (red in *atrofrenata*), the bright ochreous hair, etc. It is not at all improbable that with the accumulation of more specimens further study will necessitate the reduction of some of these nominal species to geographical races.

Nomada (Nomada) salicicola n. sp.

♂. Length 5.5-7 mm. Black, the clypeus, labrum, mandibles except tips, small triangular lateral face marks produced along anterior orbits in a line which fails to attain the level of insertion of antennae, line under eye, scape in front, tubercles (these sometimes red), sometimes two linear spots on collar, two spots on mesoscutellum, and abdominal maculations, yellow. Flagellum bright brownish red, the first four joints above, together with the scape behind, black, antennal joint 3 three-fifths as long as 4, the median joints sometimes scarcely longer than wide. Anterior orbits converging below, the interorbital width at narrowest point fully one-seventh less than the width at vertex. Head and thorax coarsely and closely punctured. Tegulae red. Wings hyaline, apically slightly darkened, nervures brown, stigma paler brown. Basal nervure slightly basad of transverso-medial, second submarginal cell unusually narrow and parallel-sided. Legs brownish red, the knees sometimes distinctly yellowish, the coxae, trochanters behind, posterior face of femora and tibiae more or less, and a suffusion on anterior face of hind femora black or blackish. Mesoscutellum scarcely subbilobed. Abdomen black, the apical margins of segments 2-4 sometimes deeply stained with reddish, tergites 1-6 with yellow bands, that on 1 narrow and complete but stained more or less with red, those on 2-5 more or less constricted on anterior margin medially and sometimes interrupted on 2 and 3, on the posterior margin of each lateral half medially more or less of an emargination, most distinct on 4 and 5 where it nearly or completely cuts through the band, the band on 6 complete and entire. Apex narrow, feebly notched, reddish. Venter brownish red with more or less distinct yellowish lines on sternites 3-5 and a yellow spot on 6; a cordate black

mark on sternite 1 and the apical margins of the sternites more or less black or blackish.

Type.—Indianola, Red Willow county, Nebraska, April 22, on *Salix nigra* (L. Bruner), ♂.

Paratype.—Type lot, 1 ♂.

This species belongs to the *Nomada simplex* group and differs at once from *N. simplex* Rob., in having the flagellum not distinctly sinuate above and more extensively red, the lack of clear yellow color on the legs, the heavier scape, the yellow spotted mesoscutellum and the longer upward extension of the lateral face marks. The rather short flagellar joints indicate relationship to *N. salicis* Rob., but these joints in *salicicola* are yet longer than wide, while the apex is feebly notched, there is no mesopleural spot, the legs have no clear yellow color and the basal nervure is basad of the transverso-medial nervure. From *N. pallidella* and *N. aprilina* it differs chiefly in the low, scarcely subbilobed mesoscutellum, feebly notched apex, longer third antennal joint and the flagellum red above beyond the fourth joint.

***Nomada (Nomada) parallela* n. sp.**

♂. Length 7 mm. Black; the clypeus, labrum, mandibles except tips, line extending under eye and a short distance up posterior orbits, lateral face marks extending in a narrow line along anterior orbits about to lower level of insertion of antennae, scape and first joint of flagellum in front, tubercles, collar, a spot on mesopleura (on a larger reddish spot), tegulae and abdominal maculations, rather bright yellow. Flagellum beyond first joint brownish red, the scape behind and a line within, which becomes narrower and less intense toward the apex and finally disappears in a dusky streak on the apical joint, black or blackish. Antennal joint 3 three-fifths as long as 4, joints 4-13 very feebly sinuate above because of distinct, broad, suboval, slightly concave, glabrous areas, defined laterally by depressed lines, which involve most of the under surface of each joint. Anterior orbits subparallel, the interorbital width at narrowest point scarcely one-tenth less than width at vertex. Head and thorax coarsely and closely punctured, the mesoscutum with four longitudinal reddish lines, the inner pair of which are longer and more distinct. Vertex and thorax with long, erect, rather copious grayish white hair. Mesoscutellum red, scarcely bilobed. Wings hyaline, apically darkened, nervures and stigma pale brown, basal nervure slightly basad of transverso-

medial, second submarginal slightly broader above than third. Legs brownish red, the coxae, spots on trochanters behind, lines on first four femora beneath and most of posterior femora except knees and a line on anterior face, black or blackish. Abdomen reddish, tergite 1 with the basal half and a subapical line black, tergites 2-6 with broad complete yellow bands, that on 2 slightly narrowed medially, the others of subequal width throughout, lateral posterior margins of bands on tergites 3-6 emarginate, on 5 and 6 the emarginations having cut through and the usual isolated lateral spots having become obsolete. Apex red, feebly notched, its sides prominently elevated. Venter brownish red, a cordate black mark on sternite 1 and basal areas of black on sternites 2-5, 6 brownish red slightly suffused with yellow.

Type.—Sioux county, Nebraska, May (L. Bruner), ♂.

This species apparently also belongs to the *simplex* group, differing from *N. simplex* Rob., chiefly in the lack of clear yellow on the legs, the reddish ground color of the abdomen with complete, scarcely medially narrowed bands, the yellow and red mesopleural spot, red mesoscutellum, yellow collar and first flagellar joint in front, the more extensively red flagellum and the longer upward extension of the lateral face marks. From *N. salicicola*, just described, it differs in the subparallel orbits, more distinctly sinuate flagellum, red mesoscutellum, mesopleural spot and complete abdominal bands. *N. salicis* Rob. differs in the shorter flagellar joints, strongly notched apex and clear yellow markings on the legs. From *N. pallidella* and *N. aprilina* it differs in the feebly notched apex, red mesoscutellum, subparallel orbits, etc., while the color of the legs, spots on collar and mesopleura, red mesoscutellum, etc., separate it at once from *N. ruidosensis*. It is highly probable that *N. parallela* may eventually prove to be the male of *N. nigrociliata* or *N. ochrohirta*, just described, or of *N. velutina* or *N. angulata*, described on a following page, but lack of any definite evidence prevents me from assigning it to any such position at present, its structural characters not indicating any one of these species in particular. On the other hand, it may easily prove to belong to a female at present unknown and undescribed.

Nomada (Nomada) depressicauda Cockerell.

1908. *Nomada depressicauda* Cockerell, *Ent. News*, XIX, p. 323, ♀.

This species was described from a female collected at Falls Church, Virginia, May 20, and has not since been recorded. It is, however, a common species in Sioux county, Nebraska, flying in May, and the writer has before him a series of a dozen females from that locality. These Nebraska specimens seem to form a slight color variety, not worthy of a name, but having the spots on the fifth abdominal tergite coalesced to form a broad yellow band above the depressed area and extending narrowly downward along the sides of the area, while the scape is entirely red without a blackish spot above. The depressed area is of variable breadth, being sometimes much broader and sometimes no broader than the space between it and the base of the segment at the sides: hence, to employ this character as a sole specific criterion in the *depressa* group would be wholly inadequate. The species occurs in extreme eastern Nebraska, also, and the writer has before him a pair collected at Bellevue, Sarpy county, in April. The female is identical with the Sioux county series, except that the depressed area is not quite so well developed, but the male sex of *depressicauda* has never been described, so the following description of it is appended:

♂. Length 9 mm. Rather dark red, the cheeks behind, an ocellar spot connected by two broad lines with a facial spot which surrounds and surmounts the antennal bases and extends downward in the clypeal sutures from the antennal bases nearly to the lateral apices of the clypeus, prothorax except collar, pectus, narrow median lines on mesoscutum and on propodeum except for the base of enclosure, depressed sides of mesoscutellum and metanotum, metapleura, most of posterior face of hind femora together with an area on base of middle femora behind and a similarly located spot on front femora, black. Clypeus, lateral face marks extending broadly up to level of insertion of antennae, labrum, mandibles except tips, front of scape and abdominal maculations, bright yellow. Tubercles and supraclypeus yellowish testaceous. Flagellum red with the tip of the scape and four basal joints above blackish, joint 3 one-half as long as 4 or slightly over. Mesoscutellum rather acutely bilobed and brighter red than the rest of the thorax. Tegulae red. Wings hyaline, strongly darkened on a narrow apical band, nervures and stigma brown, the basal nervure much basad of the transverso-medial. Legs

red, the knees slightly yellowish. Abdomen paler red than the thorax, the basal half of tergite 1 black with a large triangular red median area connected narrowly with the concolorous apical half of the tergite, tergites 2-6 red with more or less of a blackish suffusion on the middle of the depressed apical margins of the segments, and the tergites with bright yellow maculations as follows: 1 with two oblong lateral spots, 2 with large subpyriform lateral spots, 3 with large oval lateral spots, 4 and 5 with basal bands more or less distinctly interrupted on 4, and 6 with a broad transverse band, medially emarginate above. On the middle of each lateral side the spots or bands are slightly emarginate on the posterior margin, especially on 4 and 5. Apex dark red, strongly bifid.

Allotype.—Bellevue, Sarpy county, Nebraska, April, ♂.

Closely resembles the ♂ of *N. cressonii* Rob., but is darker red with less black on the propodeum, flagellum above, legs, etc., less yellow on the anterior legs and face, the scutellum more acutely bilobed, etc. The *cressonii* compared is a specimen from Indiana in the U. S. National Museum collection.

Nomada (Nomada) velutina n. sp.

♀. Length 7 mm. Light red, the cheeks behind, an ocellar spot, a broadly oval spot about bases of insertion of antennae which extends downward in the clypeal sutures and nearly isolates the supraclypeus, prothorax except collar and a spot above coxae, large spots on mesosternum, metapleura, the adjacent extreme edges of the propodeum, a broad median line on mesoscutum, depressed sides of mesoscutellum and metanotum, a diamond-shaped spot on propodeum just beneath the apex of the enclosure, the basal half of first abdominal tergite, the apical margins of tergites 1-4 (broadly and suffusedly, without great contrast as in the *nigrocincta* group), all of the femora on under half or more of base, and a line on posterior face of hind tibiae, black or blackish. Antennae red, joint 3 about two-thirds as long as 4, the scape with erect pale ochreous hair. Thorax practically devoid of hair, the few short, scattered hairs all white. Tubercles and tegulae testaceous. Wings uniformly faintly clouded, except for a clear spot just beyond and beneath submarginals, the nervures and stigma dark brown, the basal nervure slightly but distinctly basad of transverso-medial nervure. Abdomen red, with black or blackish marks as described, tergite 2 with small but conspicuous yellow pyriform spots laterally, 3 and 4 immaculate, 5 with a broad bar of yellow immediately above a flattened area which involves the apical half of the tergite, which has the apical margin obtusely angulate in profile. The flattened apical half of the tergite is subdivided into a median well-defined deltoid area, the apex of which attains the apical margin of the tergite at the apex of the angulation, and on each side of this deltoid area

a trapezoidal area, all three of the areas in different planes, and all covered with a snowy white pruinosity which is conspicuous in certain profile lights and apparent in any aspect. Hind tibiae moderately tuberculate on the outer side and with three or four short slender inconspicuous setae at tip, the dense hair on the inner side of hind basitarsi golden with the anterior margin thickly set with black bristles, the hair on the femora very thin, ochreous with a scattering of very inconspicuous black bristles on the hind femora.

Type.—Sioux county, Nebraska, May (L. Bruner), ♀.

The peculiar conformation and pruinosity of the fifth abdominal tergite is the ear-mark of this species, which in this character shows a slight resemblance to *N. depressicauda*, but which is otherwise very distinct from that species. It is apparently most closely related to *N. sayi* Rob., agreeing with it in antennal structure, red face, etc., but differing at once in the yellow-spotted, apically flattened and pruinose fifth abdominal tergite. It also resembles *N. illinoensis* Rob., but the third antennal joint is shorter than in that species and the face lacks the yellow of the lower corners usually present in *illinoensis*, while the fifth abdominal tergite is differently shaped, though it has the yellow spot. It is distinctly larger than the *parva* group and smaller than the *crossonii* group. From the allied *N. cymbalariae* Ckll., it differs in the lack of yellow marks on tergites 3-4, no black on enclosure, base of tergite 1 black right across, etc.

Nomada (Nomada) angulata n. sp.

♀. Length 7 mm. Dark red, the cheeks behind, an ocellar spot, a facial spot surrounding the bases of antennae and extending narrowly downward in the clypeal sutures so as to form a semicircle, prothorax except collar, large spots on mesosternum, metapleura and adjacent portions of propodeum as far as the outer margin of the spiracle and a narrow curved line under the spiracle, triangular area at extreme apex of propodeum, line on middle of mesoscutum, depressed sides of mesoscutellum, whole of metanotum except a narrow median streak, basal half and narrow apical margin of tergite 1, the bases of the femora beneath, a broad line on posterior face of hind tibiae, and whole outer face of hind basitarsi, black. Antennae red, joint 3 about two-thirds as long as 4, the scape thinly pale haired. Mesopleura, coxae, sternum, and extreme angles of propodeum with very thin, short, silvery white hair. Wings uniformly faintly clouded except for a clear spot beyond submarginals, the nervures and stigma brown, the basal nervure slightly but distinctly

basad of transverso-medial nervure. Abdomen dark red, except the black base and apical margin of tergite 1, the apical margins of tergites 1-4 broadly smooth and shining, tergite 2 laterally with large subpyriform suffusedly paler spots which at places are distinctly yellowish, indicating spots probably wholly yellow in some specimens, 3 with similar but smaller spots and 4 with tiny ones. Hind tibiae distinctly tuberculate on outer margin, apically with three or four slender inconspicuous setae, the inner side of hind basitarsi with pale gray hair very broadly edged with black bristles on anterior margin, the hair of the femora mostly pale. Tergite 5 with the apical margin somewhat reflexed and medially slightly produced so as to form an obtuse angle in profile, the reflexed area between the outer ends of the angle slightly flattened and thinly whitish pruinose, this pruinosity obvious in certain lights but not apparent in others, the sides of tergites 5 and 6 with black bristles, curved on 6.

Type.—Sioux county, Nebraska, May (L. Bruner), ♀.

Apparently this species is closely related to *N. velutina*, just described, and for a time the writer was inclined to consider it but a variation of that species, but the entirely different shape of the flattened pruinose area on tergite 5, the much darker red color, the less defined blackish apical margins of tergites 2-4, the black hind basitarsi with gray rather than golden hair within, etc., seem to form good specific criteria. It is even closer to *N. sayi* Rob., than is *velutina*, but the shape of the fifth abdominal tergite is very different than in that species, which has it transverse on the apical margin and not depressed or pruinose but terminating with a thin pale fringe.

Nomada (Nomada) vicinalis Cresson.

1878. *Nomada vicinalis* Cresson, *Trans. Am. Ent. Soc.*, VII, pp. 78-79, ♂.

1905. *Nomada vicinalis* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 74 and p. 84, ♂.

1905. *Nomada vicinalis infrarubens* Cockerell, *ibid.*, p. 84, ♂.

This species was described from two male specimens from Colorado, collected by Morrison. A male from Warbonnet canyon, Sioux county, Nebraska, collected May 29, 1901, by M. A. Carriker, is quite obviously a variety of *N. vicinalis*, agreeing precisely with Cresson's description of that species except that the venter is wholly red without any yellow spots or bands, tergite 6 is without an obvious yellow band, and the base of the

abdomen is not black right across on basal half but the black area has large red emarginations, forming a large black trident-shaped mark on the base of the segment. It thus agrees more closely with the color variety described by Cockerell as *N. vicinalis infrarubens*, from Corvallis, Oregon, but the hair of the mesonotum is gray only very slightly tinged with ochreous (strongly brownish in *infrarubens*), tergite 6 has no obvious band, and the tubercles and spot beneath are more yellow than red; but all these are apparently variable characters in this species. From *N. vicinalis aldrichi* Cockerell, described from Moscow, Idaho (*Annals and Magazine of Natural History*, series 8, V, p. 308), it is distinct in its wholly yellow clypeus, narrow red lines on mesoscutum, wholly red mesoscutellum, red emarginations on the black area at base of abdominal tergite 1, band on tergite 6 obsolete, etc. In all these forms the scape is swollen and yellow in front, the apex broad, hairy and distinctly notched, the thorax mainly black, etc. A female also collected in Sioux county, Nebraska, seems to the writer to very probably belong with the specimen of *vicinalis*, and is referred there rather than given a name. The female of *vicinalis* has never been described, so the following diagnosis of its characters is presented:

♀. Length 8.5 mm. Very dark red, the cheeks behind except for a narrow postorbital red line, an ocellar spot connected by narrow lines with narrowly confluent spots around antennal bases which extend broadly down in the clypeal sutures and isolate the supra-clypeus, flagellum above on about the basal half dozen joints, a narrow mesoscutal line, depressed sides of mesoscutellum, metanotum, prothorax except collar and tubercles, large spots on mesosternum, metapleura and sides of propodeum to the angulation, a broad median line on posterior face of propodeum which joins the middle of a transverse bar across apex of propodeum, the basal half of abdominal tergite 1 right across and a cordate mark on sternite 1, most of the coxae behind and at base, trochanters behind except for a distinct narrow apical yellow line, femora in front and extensively behind at base, line on hind tibiae toward apex behind, and outer face of hind basitarsi, black or blackish. Joint 3 of antennae about two-thirds as long as 4. Mesoscutellum feebly bilobed, as in the male. Wings clouded, more deeply so on a broad apical band, a clear space beyond submarginals, nervures brown, stigma pale brown, basal nervure distinctly basad of transverso-medial nervure. Outer margin of hind tibiae tuberculate, their apex with four short straight spaced pale setae, the hair on

inner side of hind basitarsi dark golden with much black intermixed, especially on the anterior edge. Abdomen dark red, tergite and sternite 1 with black marks as described, tergite 2 with large lateral cuneate yellow spots, 3 with small lateral spots, 4-6 unspotted, tergite 5 with a conspicuous apical fringe of erect silvery hair, the pygidial area on 6 broadly rounded and covered with dense long appressed hair which is silvery in profile lights, some black bristles on sides of tergites 5 and 6, curved on 6 apico-ventrally. Venter indistinctly punctured, the apical margins of the sternites and a distinct median line on sternite 5 smooth and polished.

Allotype.—Sioux county, Nebraska, May (L. Bruner), ♀.

This species is very like *N. cressonii*, ♀, but differs in the characters given in the table. It is also obviously related to *N. sayi* and *N. illinoensis* but is distinctly larger and otherwise different. *N. cymbalariae* Ckll. is related but differs in having yellow spots on sides of tergite 4 and disks of 5 and 6, blackish apical margins of tergites 1-4, flagellum red above, cheeks with less black, etc. From *N. coloradensis* Ckll., it differs in smaller size, black spots on face and black mesoscutal line, wholly red fourth abdominal tergite, etc.

Nomada (Nomada) cressonii Robertson.

1863. *Nomada maculata*, var. *b*, Cresson, *Proc. Ent. Soc. Phil.*, II, p. 304, ♀.
 1893. *Nomada Cressonii* Robertson, *Trans. Am. Ent. Soc.*, XX, p. 275, ♀ ♂.
 1903. *Nomada Cressonii* Robertson, *Can. Ent.*, XXXV, pp. 178-79, ♀ ♂.
 1905. *Nomada Cressoni Trevoriana* Cockerell, *ibid.*, XXXVII, pp. 285 and 286, ♀.

The writer has examined two females of this species from Nebraska, both from Lincoln, one collected April 18, 1903, on flowers of *Ribes gracile* and one collected April 23, 1911, while resting on the ground under a gooseberry bush. Both of these have the propodeum wholly red and the band on tergite 5 lacking. *N. cressonii trevoriana* Ckll., a form described from Corvallis, Oregon, and said to differ from typical *cressonii* by lacking the subdiscal cuneate yellow spots on abdominal tergite 4, is scarcely tenable even as a subspecies, since of the two Lincoln specimens

one has tergite 4 perfectly immaculate while the other has small but distinct yellow spots on this tergite, indicating that the difference is simply one of individual and not geographical variation. A female from Manhattan, Kansas, collected May 10, 1912, on *Ceanothus ovatus* by R. W. Dawson, has a broad yellow band on tergite 5, as in typical *cressonii*, but the propodeum is black with merely two red stripes down each side of the middle. All this indicates considerable variation in the species.

Nomada (Nomada) minuta n. sp.

♀. Length 5 mm. Red; a stain between points of insertion of antennae, about ocelli and on cheeks behind, a narrow median line on mesoscutum, depressed sides of mesoscutellum and metanotum, metapleural sutures, propleura, small spots on sides of mesosternum, and hind basitarsi, black or blackish. Antennae red, the scape suffused with yellow in front, joint 3 about three-fifths as long as 4, which is five-sevenths as long as 12. Mesoscutum rugose punctate. Mesoscutellum elevated but very feebly bilobed. Face, cheeks, notum, pleura, sides of propodeum, legs and tip of abdomen with very thin, erect, pale hair, longest on propodeum, pleura and cheeks. Wings hyaline, darkened apically, nervures and stigma dark brown, basal nervure considerably basad of transverso-medial nervure, second and third submarginal cells narrowed slightly over one half above, the second slightly the narrower. Outer face of hind tibiae smoothish, scarcely tuberculate even when viewed in profile, no obvious setae at apex. Abdomen immaculate red except for a small yellow spot on each side of tergite 2.

Type.—Bad Lands at mouth of Monroe canyon, Sioux county, Nebraska, May 28, 1901, on *Homalobus tenellus* (L. Bruner), ♀.

Because of its small size this species seems at once referable to the *parva* group. It is apparently very close to *N. infantula* Kll., but may be distinguished by the entirely red propodeum, smaller black areas on mesosternum, no black at base of abdomen or infuscation at apex of third abdominal tergite, and much broader third submarginal cell. It may be separated from typical *N. parva* Robertson, by its paler red color, feebly double spotted second abdominal tergite and otherwise immaculate abdomen, and the basal nervure much basad of transverso-medial; but in the U. S. National Museum there are three females from Georgia labeled "*parva* var." which have no spotting on the abdomen, and an Illinois female received from Robertson and determined

by him as *N. sayi* before the separation of *parva* is only 5 mm. long and has small yellow spots on sides of tergites 2, 3 and 5, those on 3 and 5 extremely vague however. It is possible that both this and *N. infantula* may eventually prove to be but geographic races of *N. parva*. It may be, also, that *N. pygmaea* Cresson, described from Connecticut, as well as Ashmead's determination of that species from Colorado (*Bulletin* 1, Colorado Biological Association, p. 30), represent males belonging with the *parva-minuta-infantula* group of females.

Nomada (Nomada) sayi Robertson.

1893. *Nomada sayi* Robertson, *Trans. Am. Ent. Soc.*, XX, p. 276, ♀♂ (part).
 1900. *Nomada sayi* Robertson, *Can. Ent.*, XXXII, pp. 293-94, ♀♂.
 1903. *Nomada sayi* Robertson, *ibid.*, XXXV, pp. 178-79, ♀♂.
 1903. *Nomada sayi* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, p. 605.

Our commonest *Nomada* sens. str. in eastern Nebraska, occurring west to the middle of the state and beyond southwardly. Specimens are before the writer from Falls City, Nebraska City, South Bend, Cedar Bluffs, Lincoln, West Point, Beaver Crossing and Indianola. The species flies normally from latter April to middle May, the dates varying in the Nebraska series of twelve females and forty-one males from April 18 to May 17. A single exceptionally late female was collected at West Point, June 28, on *Melilotus alba*. Early spring flowers are principally visited, such as *Prunus americana*, *P. cerasus*, *Fragaria virginiana*, *Lomatium daucifolium*, *Cochlearia armoracea*, *Salix nigra*, *Ribes gracile*, *Viola papilionacea* and *Erigeron philadelphicus*. Our specimens agree in the main with Robertson's description of the species, and are practically identical with an Illinois male received from him, but they rarely have a yellow spot on the sides of tergite 1, while tergites 4 and 5 frequently have spots, lateral on 4 and subdiscal on 5. There is also before the writer a typical female collected at Ute Creek, Costilla county, Colorado, June 24, 1907, at 9,000 feet, by H. S. Smith, and an unusually large and dark-colored female (7.5 mm.) with the third submarginal narrowed to a point above, but not otherwise obvi-

ously different, from the same locality collected three days later by L. Bruner.

Nomada (Nomada) propinqua n. sp.

♀. Length 7 mm. Red, a large spot above insertion of antennae extending down in the clypeal sutures, a spot involving ocelli, cheeks behind, propleura, a median line on mesoscutum, depressed sides of mesoscutellum and metanotum, propodeum except oblong areas on the angles and more or less of base of enclosure, metapleura, coxae and femoral bases behind and whole of posterior tibiae, black or blackish. Face with a thin appressed silky white pubescence, clypeus finely and indistinctly punctured, face indistinctly punctured, vertex and mesonotum coarsely but not strongly punctured. Antennae wholly red, joint 3 three-fifths as long as 4, the scape bearing numerous short pale bristles. Labrum, cheeks, pectus, coxae, angles of propodeum and sides of tergites 3-5 with silky white hair, nowhere very dense, that on occiput, mesonotum and pleura sparser and grayer, the usual black bristle tufts on sternite 6. Mesoscutellum broadly bilobed. Tegulae testaceous. Wings hyaline, the marginal cell and a broad apical band infuscated, nervures and stigma deep brown, basal nervure basad of transverso-medial, third submarginal cell narrowed above, narrower than second. Outer face of hind tibiae smooth, no obvious setae at apex. Abdomen red, not obviously punctured, the apical margins of tergites 1-4 broadly smooth and impunctate, of 5 with a narrow terminal band of short dense white hair, base of tergite 1 black, more or less emarginate medially, tergite 2 with large subpyriform lateral yellow spots, 3 with smaller rounded lateral spots, 4-6 unmarked, 5 with a few lateral black bristles.

♂. Length 8 mm. Black; clypeus, labrum, mandibles, except tips, lateral face marks extending narrowly along orbits to level of insertion of antennae, scape in front, anterior legs beyond trochanters, large pyriform marks on abdominal tergite 2 which nearly meet on the median line, smaller lateral spots on 3 and a transverse bar on 6, yellow; spots along orbital margin on sides of vertex, mesoscutum except a broad median line and the margins, mesoscutellum, metanotum, a crescent-shaped spot beneath and typically a round spot behind the tubercles, and last four legs except coxae and areas on both faces of femora basally, especially posterior femora, red. Flagellum red, the basal four joints above together with scape behind, black, joint 3 about one-half as long as 4. Mandibles at tip broad and very slightly medially notched, but not toothed as in the subgenus *Gnathias*. Mesoscutellum low, feebly and broadly subbilobate. Wings and nervuration as in female, except that the third submarginal is sometimes broader above. Abdomen red, rather paler than the red of thorax, marked with yellow as described, base of tergite 1

black right across and its apical margin black. Apex broad, deeply notched.

Type.—Warbonnet canyon, Sioux county, Nebraska, June 21, 1901 (M. A. Carriker), ♀.

Allotype.—Type locality, June 18, 1901, on *Rosa arkansana* (M. Cary), ♂.

Paratype.—Monroe canyon, Sioux county, Nebraska, June 18, 1911, on *Lappula heterosperma* (R. W. Dawson), ♂.

Unquestionably this species is very closely related to *N. sayi* Rob., and might well be regarded as but a subspecies of that insect were it not true that practically typical *sayi* itself extends west into Colorado. The female differs from *sayi* in average larger size, mainly black propodeum (mainly red in *sayi*) and some other minor color characters, while the male is distinguished chiefly by its larger size, extensively red mesoscutum and mesopleura and wholly red mesoscutellum. *N. mera* Ckll., ♀, as represented by an autotype in the U. S. National Museum, is closely related, and agrees in antennal structure, broadly bilobed mesoscutellum, etc., but has long gray hair on the sides of the propodeum, as in *N. bilobata* (very thin short pale hair in *propinqua*, confined to the angles), tergites 4 and 5 with yellow discal spots (lacking in *propinqua*), etc.; the male *mera* is more pubescent than the male *propinqua*, has more yellow on the face (a supraclypeal spot and broader lateral marks), less red on mesopleura, no yellow on anterior legs, etc.

Nomada (Nomada) illinoiensis Robertson.

1893. *Nomada sayi* Robertson, *Trans. Am. Ent. Soc.*, XX, p. 276, ♀♂ (part).

1900. *Nomada illinoiensis* Robertson, *Can. Ent.*, XXXII, p. 294, ♀♂.

1903. *Nomada illinoiensis* Robertson, *ibid.*, XXXV, pp. 178-79, ♀♂.

This species is found over the entire state, and next to *N. sayi*, is our commonest *Nomada* sens. str. Specimens in a series of eleven females and twelve males studied are from Falls City, Lincoln, West Point, Indianola, Warbonnet canyon and Monroe canyon. Its season is practically the same as that of *N. sayi* in eastern Nebraska, April 18 to May 14, and it visits much the same

flowers, viz., *Prunus americana*, *P. demissa*, *P. cerasus*, *Fragaria virginiana*, *Salix nigra* and cultivated *Spiraea*. In Sioux county *N. illinoiensis* flies in June (12-18) at flowers of *Rosa arkansana*, *Malvastrum coccineum* and *Lappula heterosperma*. This Sioux county series of five males differs from eastern Nebraska specimens in somewhat larger size, more blackish on the legs and usually darker scape, but as these are somewhat variable characters and as the series is apparently structurally identical with the eastern series it seems best to refer them to *N. illinoiensis*, for the present at least.

Nomada (Nomada) pallidipicta n. sp.

♂. Length 6-7 mm. Black, with the clypeus, lateral face marks extending narrowly up to level of antennae, line under eye, broad base of mandibles, labrum, scape in front, linear spots on sides of collar, a spot on each lobe of mesoscutellum (edged with reddish or sometimes reduced to tiny reddish spots) and abdominal maculations, cream-color or very pale yellowish. Flagellum obfuscated above, deepening to black on the four basal joints, brownish red beneath, antennal joint 3 about one-half as long as 4. Head and thorax coarsely and very densely punctured, abdomen very finely punctured. Tubercles more or less reddish basally, sometimes wholly reddish, but usually broadly edged with pale yellowish on lower and posterior margins, and beneath each tubercle an oval mesopleural spot of variable size, cream-color more or less edged with reddish. Tegulae red. Wings hyaline, broadly infuscated on apical margin, stigma pale brown, nervures dark brown. Basal nervure very slightly basad of transverso-medial. Legs dark brown and black, the latter color involving most of the anterior coxae and all of the other four coxae, stripes on posterior face of anterior and middle trochanters, femora and tibiae, two stripes on posterior trochanters, posterior femora except apices and a stripe above, posterior tibiae except knees and apex, and posterior basitarsi. Outer face of posterior tibiae coarsely tuberculate, inner face of posterior basitarsi densely pale golden haired. Abdominal tergite 1 black, 2 with large subpyriform cream-colored spots laterally, 3 and 4 with narrow lateral bands of the same color, these sometimes almost meeting, deeply emarginate submedially on apical margin, 5 with a broad bilobed band and lateral spots nearly or quite cut off by deep emarginations, 6 with a broad entire band, apex fusco-ferruginous, narrow, exceedingly feebly notched at tip or subentire. The lateral apical margins of tergites 3 and 4 and the entire apical margins of 5 and 6 are testaceous. Ventrally the segments are brownish, sternite 1 with a broad subcordate black mark, 3 and 4 and sometimes 2 and 5 with cream-colored bands, 6 with a creamy spot. A thin whitish or silvery pubes-

cence on the cheeks, pleura, lateral angles of propodeum and tip of abdomen, becoming distinctly silvery on face and pale ochreous on occiput and mesonotum.

Type.—Monroe canyon, Sioux county, Nebraska, August 23, 1908, on *Solidago serotina* (R. W. Dawson), ♂.

Paratypes.—Type locality, August 24, 1908 (R. W. Dawson), 1 ♂; Glen, Sioux county, Nebraska, 4,000 feet, August 17, 1906 (H. S. Smith), 1 ♂.

This species is distinct because of its black color and cream-colored maculations from all our other species except *N. (Holonomada) aquilarum* Ckll., to which it is related. Compared with the type of that species in the U. S. National Museum it differs at once in having the apex usually more or less notched at tip (evenly rounded and entire in *aquilarum*), antennal joint 3 much shorter than 4 (joint 3 slightly exceeds 4 in *aquilarum*), yellow lines on collar (this wholly black in *aquilarum*), the clypeus and labrum wholly pale, the mesopleura usually pale spotted and the mesoscutellum more strongly bilobed. It is really closest to the New Mexican *N. beulahensis* Ckll., but compared with a cotype of that species received from its describer, it differs chiefly in the cream-colored instead of bright yellow maculations, the wholly pale clypeus, larger lateral face marks, paler wings and more feebly notched apex. *N. interruptella* Fowler, from California, is also allied, but has the abdominal maculations yellow, including lateral spots on tergite 1, while the upper portion of the clypeus, the tubercles and the mesoscutellum are black, and the venter is more extensively yellow.

SPECIES FROM OUTSIDE NEBRASKA

Nomada (Nomada) mediana n. sp.

1903. *Nomada Astori*, var. *a*, Cockerell, *Ann. Mag. Nat. Hist.*, ser. 7, XII, p. 207, ♀.

♀. Length 7 mm. Red, the middle of the face above insertion of antennae connected with an ocellar spot which extends on sides of vertex nearly to orbits and not distinctly separated from concolorous areas on the cheeks behind, a narrow line on each side of supraclypeus, pronotum and propleura except collar, three distinct lines on mesoscutum, metapleura, depressed sides of mesoscutellum and metanotum, a broad median

band on propodeum, base of abdomen above right across except for an enclosed oval red spot, spots on extreme sides of tergites 2 and 3 and complete but more or less concealed bands on extreme base of tergites 4 and 5, black. Antennae red, joint 3 slightly less than one-half as long as 4. Lower orbits with a yellow line, becoming broad below. Wings darkened, heavily so in a broad apical band which is immediately preceded by a clear spot, nervures fuscous, basal nervure slightly basad of transverso-medial. Abdomen red tinged with purplish, unspotted, the apical margins of tergites 1-4 broadly smooth, shining, a burnished bronze in strong light. Apex of tergite 5 with a short and very thin, inconspicuous, pale tomentose band. Tibial spurs short, whitish, simple.

Type.—Palo Alto, California, April 3, 1895 (Leland Stanford University coll.), ♀.

Apparently this is the form based on a single female specimen from Corvallis, Oregon, May 20, which Cockerell placed as a variety of *N. astori* with the comment that it looked like a distinct species. It certainly is closely allied to both *N. ultima* and *N. astori*, and its characters are more or less intermediate between the two. From *astori* it differs in the slightly shorter third antennal joint, trilineate mesoscutum, base of abdomen black right across, slightly smaller size, etc.; from *ultima*, with which it agrees in antennal structure, it differs in the lack of yellow lateral abdominal spots (spots on sides of 2-4 in *ultima*), the base of the abdomen black right across or sometimes black enclosing an oval median red spot (no black medially in *ultima*), the sides of the tergites inclined to be black spotted and more or less banded basally on 4 and 5, the anterior and middle femora with black at base behind (entirely red in *ultima*) and the hind femora mostly blackish behind. From *N. oregonica* Cockerell, all three of these forms differ in the decidedly shorter third antennal joint and the peculiar purplish luster of the tergum. It is entirely possible that with a large series at hand *ultima*, *astori* and *mediana* will prove to intergrade sufficiently to be considered as but forms of one species, but for the present they had best stand as distinct.

***Nomada (Nomada) ultimella septentrionalis* n. subsp.**

♀. Length 7 mm. Very similar to *N. ultimella* Cockerell, but the propodeum with a distinct narrow black median band (this band only barely indicated in *ultimella*), the first abdominal tergite without blackish

lateral stripes, tergites 2, 3 and 4 with small yellow lateral spots (only on sides of 2 and 3 in *ultimella*), the extreme sides of abdominal sternites 2-4 with small linear yellow marks and distinct yellow spots on sides of 5 (all lacking in *ultimella*), the third antennal joint somewhat shorter, obviously shorter than fourth but over half its length.

Type.—Pullman, Washington, May 14, 1898 (C. V. Piper, probable collector), ♀.

The type of this form is certainly very close to *N. ultimella* but differs from the description of the unique type of that species in the above color characters, which, together with the remoteness from the known range of typical *ultimella* (southern California), have encouraged me to separate it as a distinct geographical race. From the *erythraea-taraxacella-ultima-mediana* group this differs at once in the longer third antennal joint, which is distinctly less than half as long as the fourth in the species mentioned, but distinctly more than half as long in both this form and typical *ultimella*. This form further differs from *erythraea*, *mediana* and *rubrica* in having the outer side of the hind tibiae strongly tuberculate and forming an obviously roughened line in profile, while in the species mentioned the tibiae are smooth. The female of *taraxacella* has the hind tibiae tuberculate on the outer side, but not so strongly so as in the above species, while *ultima* is further distinguished by the trilineate mesoscutum and black at sides of abdomen. From *astori* it differs in the lack of mesoscutal stripes or black at base of abdomen, and in the possession of yellow spots on the abdomen, and in the first two of these characters it differs also from *N. oregonica*. Its affinities apparently lie close with *N. rhodosoma* and *N. rhodosomella*, with which species it agrees in both antennal structure and tibial tuberculation, but both of these lack the yellow spots on sides of tergites 2-4 and the yellow at lower corners of the face, and in the types of both these forms the apex of the hind tibiae ends in about four very short, straight, dark bristles while in *septentrionalis* the tibiae end in two curved black bristles of considerably greater length and stoutness. In this character it resembles *N. bisetosa*, described on a previous page, but that species differs at once in its finely punctured clypeus and entirely red face and

abdomen. The male elsewhere referred to *N. taraxacella* was taken on the same day and in the same locality as the type of *septentrionalis*, but can scarcely belong with it because of the great discrepancy in the proportions of the third and fourth antennal joints.

Nomada (Nomada) simplex Robertson.

1897. *Nomada bella* Robertson (nec Cresson), *Trans. Acad. Sci. St. Louis*, VII, p. 340, ♀.

1902. *Nomada simplex* Robertson, *Ent. News*, XIII, p. 80, ♂.

1903. *Nomada simplex* Robertson, *Can. Ent.*, XXXV, pp. 178-79, ♀♂.

A well-marked color variety of this species from Agricultural College, Michigan, collected April 28, 1890, by R. H. Wolcott, is before me. The lower half only of the clypeus is yellow, the fasciae on abdominal tergites 1-5 are all interrupted medially, rather broadly so on 1-3, the anterior and middle femora are largely black in front and the apex is wholly dark. Probably more material will show that this variation is correlated with a more northerly distribution, as compared with typical *simplex* from southern Illinois.

Nomada (Nomada) wyomingensis n. sp.

♀. Length 6 mm. Red, the tips of the mandibles, a black spot between antennae at point of insertion which extends narrowly down sides of supra-clypeus and half way down the clypeal suture, line between ocelli, cheeks behind, depressions of propleura, most of sternum, ventral plate of metapleura, a median line on mesoscutum which expands at each end, depressed portion of sides of mesoscutellum, metanotum except a central line, spot on propodeum involving the lower half of the enclosure, and spots on the coxae behind, black, while vague lines on the upper and lower margins of posterior femora and an area at base of abdomen above are suffused with blackish. Antennae wholly red except for a dusky suffusion on front of joint 2, joint 3 four-fifths as long as 4. Clypeus strongly punctured, the punctures running into striae marginally, the vertex and thorax coarsely and closely punctured. Outer margin of hind tibiae tuberculate, the apex of hind tibiae with only a few exceedingly small and inconspicuous bristles, as in *rhodosomella*. Hind basitarsi with black hair within. Abdomen dark brownish red, unspotted, tergite 1 impunctate, 2-5 basally minutely indistinctly punctured with their apical margins broadly smooth and impunctate. Wings hyaline, apically distinctly darkened, nervures blackish, stigma dark brown. Basal nervure

interstitial with transverso-medial but very distinctly on the basad side, the second submarginal cell much produced on the inner lower angle, the third submarginal narrowed nearly to a point above. Cheeks, pleura below and sides of propodeum with short, fairly copious, white hair, tergites 3-6 with scattered short pale hairs, face and scape with pale hairs.

Type.—Laramie, Wyoming, June 9, 1893 (collector unknown), ♀.

This is very close to *N. rhodosomella* Ckll., and may indeed prove to be only a form of that species, but seems different in view of the complete mesoscutal line, red upper metapleural plate, largely black propodeum, and different venation. From *N. rhodoma* Ckll., it differs at once in the black facial spot, mesoscutal line, black ventral metapleural plate and different venation. The venation is similar to that of *N. robertsonella* Ckll., to which species it is also allied, but it differs in the longer third antennal joint, black spot on enclosure, etc. In the preceding table of Nebraska species it runs closest to *N. ochrohirta*, but differs in the white pubescence, red upper metapleural plate, narrower third submarginal cell, etc.

Nomada (Nomada) idahoensis n. sp.

♂. Length 5.5 mm. Head and thorax black, very strongly and closely and rather coarsely punctured, the punctures on vertex and mesoscutum running into striae. Clypeus and labrum black, the former with a very narrow reddish apical line, the lower corners of the face and a spot on the base of mandibles yellow. Scape and pedicel and most of third antennal joint black, the tip of third and whole of following joints bright reddish brown with a deep black line above which is not visible from beneath, joint 3 of antennae one-half as long as 4. Tegulae testaceous, infuscated basally. Wings hyaline, apically darkened, nervures fuscous. stigma very dark brown, basal nervure considerably basad of transverso-medial nervure. Mesoscutellum moderately elevated but only feebly bilobed. Legs yellowish brown and black, the black color involving the trochanters and coxae, stripes on anterior femora and tibiae behind, same on middle femora and tibiae and base of femora in front, posterior femora except knees and a stripe in front, posterior tibiae except apices and a median area in front, and the outer faces of posterior basal tarsal joints. Abdomen obscure red, the basal tergite black on basal two-thirds, apices of tergites 1-4 and basal middle of tergites 4 and 5 strongly suffused with dusky, small suboval lateral spots on tergites 2-4 and subdiscal spots

on 5 pale yellow. Apex red, distinctly terminally notched, the pygidial area narrow. Venter yellowish red, a cordate basal mark and apical suffusion on sternite 1 black, sides of sternites 2-5 with curved yellowish marks which meet medially on sternites 4 and 5, 6 with a yellow apical spot. Head and thorax with thin white hair, dense and appressed on clypeus and labrum, erect and longer on cheeks, pleura, sternum and sides of propodeum, shorter sparser and grayish on vertex and mesonotum, the scape with fuscous bristles obvious only in certain lights.

Type.—Peck, Idaho (collector unknown, probably J. M. Aldrich), ♂.

In the almost wholly black clypeus this species resembles *N. sidacfloris* Ckll., but differs in the largely pale legs, mostly black first abdominal tergite and very much shorter third antennal joint; otherwise the lack of yellow on the clypeus is diagnostic. From a metatype of *N. (Phor) vexator* Ckll., and a specimen from the type lot (Troublesome, Colorado, June 9, 1908, S. A. Rohwer), it differs in the narrower and reddish instead of yellow apical margin of clypeus, black scape, broader and distinctly notched apex, etc., though they show a slight relationship to each other. Its affinities are probably closest to *N. sayi* Rob., among the Nebraska species, from which it differs in numerous characters.

Nomada (Nomada) accepta Cresson.

1878. *Nomada accepta* Cresson, *Trans. Am. Ent. Soc.*, VII, pp. 77-78.
♀♂.
1878. *Nomada pacata* Cresson, *ibid.*, VII, p. 81, ♀.
1903. *Nomada accepta* Cockerell, *Ann. Mag. Nat. Hist.*, ser. 7, XII,
p. 447.
1905. *Nomada accepta* Cockerell, *Bull.* 94, Colorado Exp. Sta., p.
74, ♀♂.
1911. *Nomada accepta* Cockerell, *Proc. U. S. Nat. Mus.*, XLI, p.
237, ♂.

The writer has before him two females from Colorado Springs, Colorado, which agree perfectly with Cresson's description of *N. pacata*, which Cockerell says is the same as *N. accepta*. The record of this lot has already been published (see above, 1903), these specimens bearing the number 24 (L. Bruner).

Nomada (Nomada) subpacata n. sp.

♀. Length 7 mm. Red; oval spots behind antennal bases encroaching down on sides of supraclypeus, oval spot involving ocelli, cheeks behind, prothorax except collar, anterior and posterior margins of mesoscutum and a narrow, medially indistinct mesoscutal line, metapleura and contiguous edge of propodeum, area under wings, depressed sides of mesoscutellum, metanotum except a transverse line, median line on propodeum, spots on coxae behind, on femora beneath and on tibiae within, black. Abdomen black above, the very apex of tergite 1 slightly stained with reddish and the lateral apical margins of tergites 2 and 3 and whole margin of 4 narrowly reddish testaceous, large cuneate white spots on sides of tergite 2, smaller spots deeply emarginate posteriorly on sides of 3 and 4, a large transverse white spot on 5 with a small lateral spot cut off on each side. Venter red, with discal medially interrupted white bands on sternites 3 and 4. Pygidial area acute, finely and closely pale haired, the sides of segment 6 with tufts of long curved black bristles. Antennae red, the flagellum above somewhat obfuscated apically, antennal joint 3 a shade shorter than 4. Clypeus and cheeks finely and closely punctured, rest of head and thorax coarsely and closely punctured, body practically devoid of hair. Tegulae shining, reddish testaceous. Wings slightly clouded, darkened on apical margin, basal nervure basad of transverso-medial. Outer face of hind tibiae strongly tuberculate, the apices each with about four small straight setae.

Type.—Fargo, North Dakota, September 16, 1911, on *Aster exiguus* (O. A. Stevens, No. 3018).

This species is close to *N. accepta* (= *pacata* Cresson), but apparently is distinct in its smaller size, in the lack of the yellowish white spots on the sides of the face below and on the base of the enclosure, in having the first abdominal tergite wholly dark (in *accepta* there is a whitish interrupted band behind which the tergite is red), the abdominal maculations whiter and more widely separated on tergites 2-4, and the mesoscutum with merely a narrow median line (usually distinct lateral lines in *accepta*). From *N. gutierreziae* Ckll., it differs in the much shorter third antennal joint, lack of a pale band on tergite 1, etc., and from *N. libata* Cresson, *N. vallesina* Ckll. and *N. coloradensis* Ckll., it differs at once in the white rather than yellow maculations and in other characters.

Nomada (Nomada) vicina Cresson.

1863. *Nomada vicina* Cresson, *Proc. Ent. Soc. Phil.*, II, pp. 292-94,

♀ ♂.

1903. *Nomada vicina* Robertson, *Can. Ent.*, XXXV, pp. 178-79, ♀ ♂.

To the Connecticut, New York and Illinois records of this species may be added that of a typical female collected at Grand Rapids, Michigan, August 27, 1901, by R. H. Wolcott, and found to be identical with a homeotype specimen from Watch Hill, Rhode Island, compared by H. L. Viereck and now in the U. S. National Museum.

Nomada (Nomada) vicina stevensi n. subsp.

♀. Length 8-9 mm. Exactly like *N. vicina* ♀ but the abdominal maculations cream color or very pale yellowish white (bright chrome yellow in typical *vicina*), the four red lines on the mesoscutum broader, sometimes involving most of the sclerite (narrow and often subobsolete in *vicina*), and the front orbital margins and apical margin of the clypeus broadly red, sometimes involving most of the sides of the face and the clypeus (the sides of the face and apical margin of clypeus usually very narrowly or obsoletely red in *vicina*).

♂. Length 6.5-8.5 mm. Like *N. vicina* ♂ but the upper half of the clypeus is black and the lower half of the clypeus, together with the labrum, short triangular lateral face marks, the scape in front and the abdominal bands, is cream color (in typical *vicina* the whole of the clypeus, labrum, lateral face marks, scape in front, and abdominal bands are yellow), while the mandibles except tips, the orbits of the eye beneath, the tubercles, the tegulae, the pleural spot, the mesoscutellum and the paler markings of the legs are red (in typical *vicina* the mandibles except tips, the orbits of the eye beneath, the tubercles, the tegulae, and the pleural spot are yellow, while the mesoscutellum is blackish sometimes with an obsolete yellowish spot and the first four legs are washed with yellowish in front). In some specimens of *vicina stevensi* the labrum, clypeus and lateral face marks have the cream color more or less heavily suffused with red.

Type.—Fargo, North Dakota, August 17, 1911, on *Grindelia squarrosa* (O. A. Stevens, No. 2797), ♀.

Allotype.—Type locality, August 17, 1911, on *Grindelia squarrosa* (O. A. Stevens, No. 2801), ♂.

Paratypes.—Type locality, August 17, 1911, on *Grindelia squarrosa* (O. A. Stevens, Nos. 2796, 2798, 2799, 2800), 2 ♀, 2 ♂; do., August 7, 1911, on *Melilotus alba* (O. A. Stevens, No. 2605),

1 ♂; do., August 25, 1911, on *Solidago canadensis* (O. A. Stevens, No. 2940), 1 ♂.

Named for Mr. O. A. Stevens of the North Dakota Experiment Station, who collected the specimens, in recognition of his work on the relation of insects, especially of bees, to the pollination of Kansas and North Dakota flowers.

Nomada (Nomada) beulahensis Cockerell.

1903. *Nomada beulahensis* Cockerell, *Ann. Mag. Nat. Hist.*, ser. 7, XII, p. 209, ♂.

1905. *Nomada beulahensis* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 74, ♂.

Compared with the description of *N. beulahensis* Ckll., which species was based on five males from New Mexico, and with one of the cotypes (Beulah, N. M., August, T. D. A. Cockerell) before him, the writer finds a specimen collected at Fargo, North Dakota, August 17, 1911, on *Grindelia squarrosa* (O. A. Stevens, No. 2802) to differ only in very minor color variations, *i. e.*, it lacks the yellow lines on the collar and the spots on the mesoscutellum which are present in most of the New Mexico series. It is of the minimum size given for the New Mexico series (6 mm.), and has the lateral face marks produced for some distance up the orbital margin, as mentioned for some specimens of the New Mexico series. This species is certainly close to *N. interruptella* Fowler, but is apparently distinct in the lack of yellow markings on the legs and first abdominal tergite, and the mostly black venter. It is possible, however, that the two will be found to intergrade, in which case the species would be known as *interruptella*. *N. pallidipicta*, described on a previous page, differs in the cream-colored ornaments, wholly pale clypeus, pale mesopleural spot, pale spots on mesoscutellum and collar, paler wings and less distinctly notched apex, and seems to be a good species.

Subgenus **Heminomada** Cockerell, 1902

KEY TO THE NEBRASKA SPECIES

Females

First abdominal tergite red, often with more or less black at base and on apical margin, but without a yellow band or yellow lateral spots I

First abdominal tergite with a broad and complete or narrowly interrupted yellow band, this sometimes (*e. g.*, *crawfordi*) reduced to yellow lateral spots2

1. Clypeus, supraclypeus and lateral face marks, which nearly or quite fill the space up to level of insertion of antennae, yellow or yellowish; tubercles yellow; front wings usually with only one or two submarginal cells in one or both wings; yellow bands on tergites 2-5, that on 2 much narrowed and sometimes subinterrupted medially; usually only small rounded yellow spots on sides of propodeum, and these sometimes obsolete, none on enclosure; 7-8.5 mm.*obliterata*
1. Clypeus, supraclypeus and sides of face red, without any distinct yellowish suffusion; tubercles usually red, sometimes suffused with yellow; front wings with three submarginal cells; yellow bands on tergites 2-5, that on 2 uniformly broad; not narrowed medially; propodeum with large yellow areas on sides coalesced with large spots on enclosure to form a broad yellow band on each side; 9-10 mm.*elrodi*
2. Mesopleura largely red; mesoscutum and mesoscutellum red; band on tergite 1 usually interrupted, often reduced to lateral spots; legs mostly red, the knees, anterior femora in front, and the first four tarsi with posterior margin of hind tarsi, usually yellow or suffused with that color; 10-12 mm.*crawfordi*
2. Mesopleura yellow or mainly black; mesoscutellum yellow or spotted with yellow; band on tergite 1 complete or but narrowly interrupted3
3. Legs red, all the knees and a broad line on outer face of tibiae yellow, areas on coxae, trochanters and femora behind and a stripe on hind tibiae, black; mesopleura mainly black, propodeum black with two yellow spots, mesoscutellum with two yellow spots; mesoscutum black or with four yellow lines; abdomen black, with broad yellow bands; 8-9 mm.*civilis*
3. Legs bright yellow, only the coxae, trochanters and femora behind with a small suffusion of red, black only on spots on coxae behind and narrow stripes on hind femora and tibiae; mesopleura, propodeum except extreme sides and a median line, elevated portions of mesoscutellum and metanotum, and lateral lines on mesoscutum, bright yellow; mesoscutum discally black with two broad red lines; abdomen yellow, its base and narrow apical margins of the tergites reddish; 9 mm.

citrina flavomarginata

(The female of *fragilis* is unknown or unrecognized).

Males

- Joint 3 of antennae fully two-thirds as long as 4, or more; lateral face marks extending up along orbits to summit of eye1
- Joint 3 of antennae distinctly less than two-thirds as long as 4, usually about one-half as long; lateral face marks not nearly attaining the summit of the eye2
 - 1. Legs red, the anterior legs in front and anterior face of middle tibiae yellow, the coxae behind and stripes on the hind femora and tibiae, black; usually only one or two submarginal cells in one or both wings; 6-9 mm.*obliterata*
 - 1. Legs yellow, with contrasting black spots or stripes on the coxae, trochanters and femora behind, typically without any reddish suffusion except on the hind tarsi but sometimes with reddish margins to the black spots on the posterior face of the femora and tibiae and reddish areas on the anterior face of the posterior femora and tibiae; wings with three submarginal cells; 9-10 mm.*civilis*
- 2. Joint 3 of antennae very short, not over one-third as long as 4, and joining 4 obliquely; legs mostly red, only the anterior legs in front and the knees yellowish, the coxae, last four trochanters and femora, and a stripe on hind tibiae marked with black on posterior face; continuous, clear-cut yellow bands on tergites 1-6, narrowed medially on 2 and 3; 7.5-8 mm.*fragilis*
- 2. Joint 3 of antennae about one-half as long as 4.....3
 - 3. Legs yellow, the coxae and trochanters behind and the posterior coxae in front, a small spot at extreme base of anterior femora and areas involving almost all of posterior face of hind femora and their anterior face except the apex, black, the middle femora except knees and stripes on last four tibiae reddish to dusky; elevated portions of mesoscutellum and metanotum and a large transverse pleural spot, bright yellow; tergites 1-6 with broad complete yellow bands, only slightly narrowed on 2, apex wholly yellow; 9 mm.*citrina flavomarginata*
 - 3. Legs red, not heavily marked with yellow or black; mesoscutellum with two red or yellow spots of variable size, rarely coalesced; pleural spot smaller, confined to anterior portion of mesopleura.4
- 4. Clypeus practically bare; legs with distinct yellowish suffusions on the anterior pair in front, on all the knees and tarsi, and on the middle tibiae in front on most specimens, sometimes all these are concolorous; 8.5-10 mm.*crawfordi*
- 4. Clypeus rather densely covered with silky appressed silvery hair; legs much less inclined to yellowish suffusions; 7-9 mm.5
 - 5. Mesoscutum and mesopleura black; vertex black; propodeum black

- except for yellow spots on the enclosure and sides of propodeum in some specimens *elrodi*
5. Mesoscutum and mesopleura red; vertex largely red; propodeum with extensive red edgings to the yellow spots on the propodeum, the red areas sometimes suffusing the yellow spots and involving most of the posterior face of the propodeum except the median line *elrodi* var.

Nomada (Heminomada) obliterata Cresson.

1854. *Nomada pulchella* Smith, *Cat. Hym. Insects British Museum*, II, p. 247, ♂.
1863. *Nomada obliterata* Cresson, *Proc. Ent. Soc. Phil.*, II, pp. 301-02, ♀.
1879. *Nomada bisignata* var. *obliterata* Cresson, *Trans. Am. Ent. Soc.*, VII, p. 217.
1887. *Nomada bisignata* var. *obliterata* Cresson, *ibid.*, p. 297.
1897. *Nomada tiburni* Robertson, *Trans. Acad. Sci. St. Louis*, VII, p. 341, ♂.
1898. *Nomada obliterata* Robertson, *ibid.*, p. 51, ♀ ♂.
1903. *Heminomada obliterata* Robertson, *Can. Ent.*, XXXV, p. 177, ♀ ♂.
1903. *Nomada (Heminomada) obliterata* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, p. 502.
1905. *Nomada obliterata* Cockerell, *Bull. 94, Colorado Exp. Sta.*, p. 71.

In 1837 Say described *Nomada vineta* from Indiana, basing the name primarily upon the female sex, which was described first. The male described by Say as belonging to *vineta* ♀ was not that species, as was subsequently pointed out by both Cresson and Robertson, but probably was, as stated by Cresson, a small and slender female of *N. luteola* Olivier. However, at the present time the true male of *vineta* is very well known, having been correctly mated and well diagnosed by Robertson from Illinois specimens; the species is, in fact, one of our commonest autumnal species of *Nomada*, ranging from New Jersey, Indiana and Illinois west to Kansas, Nebraska, North Dakota and eastern Colorado. In 1854 Frederick Smith described *Nomada pulchella* from "North America," the male sex only being described. In 1863 Cresson placed *N. pulchella* as a synonym of his determination of *N. vineta*, the male only of which was really *vineta* (*vide* Robertson the ♀ was *N. affabilis* ♀), and this disposition of *pulchella* apparently was not seriously questioned for the name

dropped out of the literature. But a comparison of Smith's description with specimens of *vincta* ♂ and with the descriptions of *affabilis* ♂ convinces the writer that Cresson was in error in considering *pulchella* as a synonym of either *vincta* or *affabilis*. In the first place both of these species are much too large, being usually 10 or 11 mm. long and rarely indeed as small as the length given by Smith for *pulchella* ($3\frac{1}{2}$ lines = 7 mm.); moreover they have the wings more heavily clouded apically and the basal segment of the abdomen has a yellow band, while *vincta* has the flagellum heavily dusky in the middle and the scape in front usually strongly suffused with reddish. In the same paper in which he reduced *pulchella* to synonymy Cresson described *Nomada obliterata* from a single female from the District of Columbia. In 1897 Robertson described *Nomada viburni* from two male specimens from Illinois, and in the following year recorded the taking of the female which proved to be conspecific with Cresson's type of *N. obliterata*. Since then *N. obliterata* has been collected in various localities, and is now known to range from the District of Columbia west through Indiana, Illinois and Nebraska to Montana. A comparison of the description of *N. pulchella* Smith with a large series of males of *obliterata* from Nebraska (ninety-six specimens) shows that all of the characters given can be exactly matched in some of the specimens of this series, the only points of variation being that most specimens have the yellow lateral face marks attaining the vertex and the apex reddish. The size varies from 6-9 mm., the wings are faintly clouded on the apical margins, and the basal segment of the abdomen has a transverse ferruginous band, exactly as described for *pulchella*. The writer feels almost certain that a comparison of the type of *N. pulchella* Smith with males of *N. obliterata* will show them to be the same species, but until such actual comparison can be made we had best continue to call the species under Cresson's name.

In Nebraska *N. obliterata* flies from April 19 to May 2 and is common at the flowers of *Prunus americana* and *Salix nigra*. It has been collected at Lincoln, Cedar Bluffs and West Point.

Nomada (Heminomada) elrodi Cockerell.

1903. *Nomada elrodi* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, pp. 583-84, ♂.

1905. *Nomada elrodi* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 73, ♂.

This species was originally described from a type male from Montana and a single male paratype from Cedar Bluffs, Nebraska (L. Bruner, No. 30), and additional specimens have not since been recorded from elsewhere. It is, however, a fairly common species in Nebraska, and the writer has before him a series of four females and eight males collected at Lincoln, Cedar Bluffs and West Point, Nebraska, April 13 to May 19, at flowers of *Ribes gracile* and *Prunus americana*. A ninth male is from Sierra Blanca, Costilla county, Colorado, July 10, 1907 (L. Bruner). No single one of the series of nine males agrees with the original description in every detail, though one (Lincoln, Nebraska, May 11, 1901, on *Ribes gracile*, M. A. Carriker) does so except in slightly smaller size (9 mm.) and in having the whole of the mesoscutum black as in the Cedar Bluffs paratype. The series shows the males to be exceedingly variable in the color markings: viz., the supraclypeal mark is sometimes present as in the type, but usually is absent or reduced to a tiny spot; the lateral face marks are sometimes broad above and fill the space between the orbits and supraclypeus as in the type, but usually are narrower though rather broad above and sometimes may even be reduced to mere broadly linear marks terminating in a point at level of insertion of antennae; the flagellum is usually black spotted behind beyond as well as before the fourth or fifth joint; the lateral borders of the mesoscutum are usually not red; the pleural mark is usually smaller, v-shaped or round; the mesoscutellum is sometimes yellow, sometimes has large yellow or red spots and sometimes very tiny yellow or red spots; the propodeum is sometimes marked as described for the type, sometimes has only the two spots on the enclosure, but usually is all black; the basal nervure is sometimes a little basad of, sometimes considerably basad of, and sometimes interstitial with the transverso-medial; in size the series varies from 7 to 9 mm. All, how-

ever, have the clypeus provided with appressed, silky white hair. The female sex is much less variable, and as that sex has never been described the following diagnosis is appended:

♀. Length 9–10 mm. Red; a spot about bases of antennae which sends down curved lines in the upper clypeal sutures, an ocellar spot, cheeks behind, prothorax except the yellow collar and sometimes a yellowish suffusion on tubercles, a median line on mesoscutum, depressed sides of mesoscutellum and all of metanotum except a short median red line. line under wings, metapleura, sides of the propodeum as far as the spiracles, median line on posterior face of propodeum, large spots on sides of mesosternum, coxae behind, small spots at extreme base below of middle femora and a stripe on posterior face of hind femora, area at base of first abdominal tergite and a U-shaped mark on the first abdominal sternite, black. Antennae red, joint 3 about two-thirds as long as 4. Two large yellow spots on the sides of the enclosure coalesce with two large yellow areas on the sides of the propodeum to form a broad yellow band down each side, involving most of the posterior face of the propodeum. Lobes of mesoscutellum not prominent, usually yellow spotted. Legs, except for the black markings noted, wholly red. Tegulae red. Wings hyaline, moderately darkened along apical margin, the nervures and stigma brownish red, the basal nervure interstitial with the transverso-medial or nearly so. First abdominal tergite, except the irregularly margined black area at base and the dusky band at the apex, wholly red, tergites 2–4 with uniformly broad, complete yellow bands, emarginate laterally on posterior margin on 4 and 5. Venter red, sometimes with small yellow spots on sternites 4 and 5.

Allotype.—Lincoln, Lancaster county, Nebraska, May 11, 1901, on *Ribes gracile* (M. A. Carriker), ♀.

In addition to the series of eight males from Nebraska mentioned above, there are two males from West Point, Nebraska, collected in June (the above series was all taken in April and May), one June 22 on *Erigeron ramosus* and the other June 25 on *Symphoricarpos occidentalis*, which differ strikingly in having the black of the head and thorax largely replaced by red. These obviously represent a distinct late-flying variety of *elrodi*, at least, if they are not the males of a distinct but closely related species, and may be distinguished as follows:

♂. Length 7–8.5 mm. Structurally essentially like *N. elrodi* ♂, but face above level of antennae and extending down in the clypeal sutures (sometimes involving supraclypeus), vertex except an ocellar patch (which

sometimes extends broadly down to level of antennae), posterior orbits except at extreme lower end, mesoscutum except a median line, lobes of mesoscutellum, sometimes a line on metanotum, large spots usually involving most of mesopleura, and areas on posterior face of propodeum surrounding the yellow spots on the sides of the propodeum and enclosure which sometimes completely suffuse these yellow spots and involve most of the posterior face of the propodeum except the median line, red instead of black as in typical *elrodi*.

Material.—West Point, Nebraska, two males as above mentioned.

Nomada elrodi belongs to the *obliterata-crawfordi-morrisoni*-etc. group, but the female differs from the corresponding sex of all of these in the complete lack of yellow on the first abdominal tergite, except from *obliterata*, and from that species it can be separated easily by the characters given in the table. The male differs from *obliterata* ♂ in the distinctly shorter third antennal joint, in having less yellow on the face and the lateral face marks broad above and ending not much above the level of insertion of antennae (extending nearly to summit of eye in *obliterata*), in having a complete yellow band on tergite 1 (in *obliterata* the band is usually narrow and widely interrupted, often reduced to lateral spots), and in having the normal three submarginal cells (usually only one or two submarginals in one or both wings in *obliterata*). From *crawfordi* ♂ it differs in smaller size and in having the clypeus covered with a rather dense, appressed silky pubescence, most conspicuous in profile.

Nomada (Heminomada) crawfordi Cockerell.

1905. *Nomada crawfordi* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 79, ♀.

?1905. *Nomada gillettei* Cockerell, *ibid.*, p. 81, ♂.

1906. *Nomada crawfordi* Cockerell, *Bull. Am. Mus. Nat. Hist.*, XXII, pp. 437-38, ♂.

?1907. *Nomada ednae* Cockerell, *Ann. Mag. Nat. Hist.*, ser. 7, XIX, pp. 537-38, ♂.

1911. *Nomada crawfordi* Cockerell, *Proc. U. S. Nat. Mus.*, XLI, pp. 239-40, ♂.

This species is represented by a series of three females and four males from West Point, Nebraska, and an additional male

collected in the Bad Lands at the mouth of Monroe canyon, Sioux county, Nebraska, June 21, 1911, by R. W. Dawson. The females agree *exactly* with the description of the unique type female, except that sometimes there are well developed yellow spots within the lateral yellow spots on the first abdominal tergite and again all these spots are coalesced to form a deeply medially incised but complete yellow band, that sometimes the whole clypeus and supraclypeus are yellow or are strongly suffused with that color, that there are usually two yellow spots of variable size on the mesopleura which are sometimes large and nearly coalesced, and that the basal nervure is often interstitial with the transverso-medial nervure on the basal side. The five males show considerable variation, as was the case in the closely related *elrodi*. These males agree with specimens in the U. S. National Museum determined as *crawfordi* ♂ by Cockerell, especially in the proportion of the antennal joints (3 = one-half of 4), the truncate and feebly notched apex, the black, yellow and red tribanded first abdominal tergite, the broad complete bands on tergites 2-6, the small round spots on the propodeum (these lacking in the Sioux county specimen), the two red or yellow spots on the mesoscutellum, the yellow front of scape, lateral face marks, clypeus, mandibles except tips, labrum, tubercles, tegulae, collar, etc. The breadth of the lateral face marks varies considerably, however, and the supraclypeal mark is sometimes present and sometimes absent, so that while the face in some specimens is wholly yellow beneath the level of the insertion of antennae in others it has much black above the clypeus, exactly parallel variations to those found in *elrodi*. Also, in *crawfordi* there is an L-shaped yellow mark of variable size, usually large, below the tubercles and usually a small yellow spot behind the tubercles, the metanotum usually has a red mark, and the basal nervure is usually interstitial with the transverso-medial nervure. Nothing in the description of *N. gillettei* Ckll., which the writer can find, would indicate specific distinctness from *crawfordi* ♂, and it seems probable that the former is merely a color variation of the latter to be matched even in the small Nebraska series. Also, it would seem doubtful that *N. ednae* Ckll. is specifically

distinct from *crawfordi*, since the mere difference in the breadth of the lateral face marks used to separate the two by Cockerell (*Proc. U. S. Nat. Mus.*, XLI, p. 240) is a character of such variability as to be useless in separating species in this group of males, and a study of the description of *ednac* adds no character not to be matched in the five Nebraska males of *crawfordi*.

Nomada (Heminomada) civilis Cresson.

1878. *Nomada civilis* Cresson, *Trans. Am. Ent. Soc.*, VII, p. 78, ♂.
 1903. *Nomada civilis* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, pp. 581-82 and p. 584, ♂♀.
 1905. *Nomada civilis* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 72 and p. 78, ♂.
 1909. *Nomada civilis* Cockerell, *The Entomologist*, XLII, pp. 93-94, ♀.
 ?1910. *Nomada civilis spokaneensis* Cockerell, *Psyche*, XVII, pp. 92-93, ♀.

The writer refers here a series of three males and three females from Sioux county, Nebraska, of which two of the males and the three females were collected in May (L. Bruner), and the other male in Warbonnet canyon, June 13, 1901, on *Rosa arkansana* (M. Cary). These three males agree exactly with Cresson's description of *N. civilis*, based on nine males from Colorado, except that one has yellow spots both on the sides of the propodeum and the enclosure (propodeum entirely black in the other two). The females, however, do not agree with the descriptions of Cockerell's determinations of that sex of *N. civilis*, either with the specimens from Troublesome, Colorado, Corvallis, Oregon, or the named variety, *spokaneensis*, from Spokane, Washington. They are closest to the Colorado female (which was collected in company with ♂ *civilis*), but differ in the yellow orbital margins, yellow tegulae, mostly yellow spots on sides of propodeum, the red supraclypeal mark and scape in front, the black ground color of the abdomen and mostly black mesopleura, deeply infuscated flagellum, narrowly interrupted band on tergite 1, white hair on mesoscutellum and metanotum, etc. They are much smaller than the forms from Corvallis and Spokane, differing further from the former in the red scape, largely red pleural mark, much red-margined propodeal spots,

etc., and from the latter in the yellow tegulae, more yellow on legs, first abdominal tergite without clear red but with a broad and only slightly medially interrupted yellow band, complete yellow bands on tergites 2 and 3, white hair of mesonotum, etc. Apparently, we have here either an exceedingly variable species in the female, or else several species are being badly confused. The writer feels certain that the females here included belong with the males, and that the males are referable to *N. civilis* Cresson. The females, then, will be described as a fourth variety of *civilis* ♀:

♀. Length 8-9 mm. Black; the clypeus, labrum, mandibles except tips, lateral face marks extending narrowly along orbits to their summits, line under eye extending along posterior orbits nearly to summits, collar, tubercles, irregular spot beneath, tegulae, sometimes four lines on mesoscutum, lobes of mesoscutellum, line on metanotum, spots on sides of propodeum which sometimes unite with smaller spots on enclosure, a broad, narrowly medially interrupted band on tergite 1, a similar complete but medially narrowed band on 2, complete bands of uniform width on 3-5, broad bands on sternites 2-4 and spots on sides of sternite 5, all the knees and a broad line on outer face of tibiae, bright lemon yellow. Supraclypeal area, edges of orbital lines more or less, edges of spots below tubercles and on sides of propodeum more or less, apical margins of the tergites and posterior edges of the bands with the interrupted spot on band of tergite 1, together with the legs except the yellow areas mentioned and black areas on posterior face of coxae, trochanters and femora and a stripe on posterior tibiae, red. Antennae red, heavily suffused with dusky beyond the third joint beneath, blackish above, joint 3 two-thirds as long as 4. Head and thorax coarsely and strongly punctured, abdomen indistinctly punctured. Wings hyaline, very faintly clouded on apical margin, nervures yellowish brown, stigma reddish brown, basal nervure basad of transverso-medial nervure. Hair of occiput, mesonotum, sides of propodeum, etc., white, not tinged with reddish.

Material.—Sioux county, Nebraska, May (L. Bruner), 3 ♀.

Nomada (Heminomada) citrina flavomarginata n. subsp.

A pair from West Point, Nebraska, the female of which is obviously referable to the *sulphurata-pericincta-citrina* group, is before the writer. A study of the known forms of this confusing group would seem to indicate that they may be divided into at least three well-defined sections, each section being probably of

specific value, and these sections may be based primarily upon the proportionate length of the basal joints of the flagellum. The following table will contrast these forms:

Pleura above almost entirely yellow; 9-11 mm.

Joint 3 of antennae "very much shorter" than 4, less than one-half as long; legs yellow, stained with red; mesoscutum with broad yellow lateral stripes and usually two yellow lines on the disk; flagellum mostly dark, antennal joint 3 contrastingly red; first abdominal segment very broad*sulphurata* Smith

Joint 3 of antennae "much shorter" than 4, about one-half as long; mesoscutum with broad yellow lateral stripes but no discal stripes; flagellum largely dark apically (*N. perivincta*).

Legs yellow, stained with red; clypeus, bases of mandibles and posterior orbital margins yellow, the latter edged with reddish; mesoscutum with two broad red bands; a red spot on pleura below; first abdominal segment broader. .*perivincta* var. *b* Ckll.

Legs red, the anterior and middle femora in front and at apex, a stripe on hind femora in front and a spot on hind coxae above, outer face of tibiae and hind basitarsi, yellow; upper part of clypeus, bases of mandibles and posterior orbital margins red; mesoscutum merely with reddish edgings to the yellow lateral stripes; a black spot on pleura below; first abdominal segment narrower*perivincta* Ckll.

Joint 3 of antennae "slightly shorter" than 4, about two-thirds as long (*N. citrina*).

Broad yellow stripes on sides of mesoscutum over tegulae; disk of mesoscutum fed with three black lines; mesoscutellum wholly yellow; flagellum strongly blackened at end; legs yellow, suffused with reddish on coxae, trochanters and femora behind, the coxae and posterior femora behind with black.

flavomarginata n. subsp.

Yellow of mesoscutum confined to a spot before tegulae.

Mesoscutum wholly or largely red; legs red and yellow, the former color predominating, the hind coxae and femora with much black behind.

Flagellum strongly blackened at end; mesoscutum red with a broad median black band and black on the anterior and posterior margins; mesoscutellum wholly yellow*semirufula* Ckll.

Flagellum entirely red; mesoscutum wholly red; scutellum with two yellow spots separated by red.

rufula Ckll.

Mesoscutum black; legs yellow, the coxae, femora above and behind, and a stripe on four posterior tibiae behind, black; flagellum red, black at the end; mesoscutellum wholly yellow*citrina* Cresson

Of the several forms above tabulated, *flavomarginata* seems to be closest related to *N. semirufula* Ckll. (*Bull.* 94, Colorado Exp. Sta., pp. 80-81, ♀), from Colorado, from which it differs chiefly in the possession of the yellow supratregular stripe, more black on mesoscutum, chiefly yellow legs, small blackish centers to the red lower pleural spot, basal nervure interstitial with transverso-medial, etc. From *N. rufula* Ckll., from Idaho (*Proc. Acad. Nat. Sci. Phil.*, 1903, p. 586, ♀), the apically blackened flagellum, three black lines on mesoscutum and wholly yellow mesoscutellum are diagnostic characters. From typical *N. citrina* Cress. (*Trans. Am. Ent. Soc.*, VII, pp. 79-80, ♀), of California to Washington, it differs in having the yellow supratregular stripe, in the reddish suffusion of the coxae, trochanters and femora behind, in the lack of black on the middle femora and the posterior face of middle tibiae, in having the apical margin of tergite 1 and most of sternite 1 reddish, etc. In addition to the shorter third antennal joint, it differs from the other forms in this group as follows: From typical *perivincta*, from Colorado, in its slightly smaller size, more extensively red vertex, two broad reddish mesoscutal bands, mostly red lower pleural spot, chiefly yellow legs which are merely suffused with reddish on the coxae, trochanters and femora behind, the wholly yellow clypeus, yellow bases of mandibles, mostly yellow posterior orbits, reddish apical margins of tergites 1-4 and the red first abdominal sternite which is relieved only by a trilobate yellow median mark. From *perivincta* var. *b*, also from Colorado, the type of which the writer examined in the U. S. National Museum, in smaller size (the Colorado insect is 11 mm. long), in having the apical margins of tergites 1-4 reddish and of variable width (very even, narrow and blackish in the Colorado specimen), in having the hind femora and tibiae with merely a narrow stripe behind (largely black in the Colorado specimen), in having small blackish centers to the red lower pleural patches (these all red in the Colorado

example), and a few other minor differences. From *sulphurata*, of the eastern states, it differs in the lack of black lines in the upper clypeal sutures and the black patch above antennae, in the nearly concolorous third antennal joint, in the broad reddish bands on the disk of the mesoscutum instead of being wholly black or usually with yellow stripes, in the reddish apical margins of tergites 1-4, in the more largely yellow venter, and in having the basal nervure interstitial with the transverso-medial.

The male of *flavomarginata* differs from *N. rivalis* Cresson, which is known only in the male and is almost without doubt the male of *citrina* (in which case the species would be known as *rivalis*), by the wholly yellow mesoscutellum, the great median narrowing of the transverse yellow pleural patch, and the broad transverse stripes on the margins of the sternites. From the male of *N. sulphurata* Smith it differs in having the lateral margins of the mesoscutum black, in the smaller propodeal spots, in the lack of a yellow spot before anterior ocellus, and in having the margins of the sternites blackish. The males of *perivincta*, *semirufula* and *rufula* are unknown, or unrecognized as such. The detailed description of the new form follows:

♀. Length 9 mm. Clypeus except small spots on lateral sutures, lateral face marks extending above level of insertion of antennae, scape in front, labrum, base of mandibles, inferior and broad posterior orbital margins, collar, tegulae, suprategular stripes, axillae, elevated portions of mesoscutellum and metanotum, large quadrate spots involving all of the posterior face of the propodeum except a red median line, tubercles, pleura and pectus except a large red spot with small black center on the lower side of each pleurum, legs except a reddish suffusion on coxae, trochanters and femora behind and black lines on posterior femora and tibiae below, tergum except a basal area and narrow reddish lines on the apical margins of tergites 1-4 which broaden medially, a large trilobate mark on the otherwise red first abdominal sternite and remainder of venter except narrow, usually concealed, bases of sternites 3 and 4, bright lemon yellow. Vertex except a black ocellar patch, a suffusion behind the yellow postorbital line, two broad bands involving most of the disk of the mesoscutum, and spots on sides of propodeum, red. Antennae with the flagellum red, strongly blackened above and toward apex, joint 3 about two-thirds as long as 4. Wings hyaline, nervures yellowish red, stigma paler, basal nervure interstitial with the transverso-medial on the basal side.

♂. Length 9 mm. More slender than the ♀. Black, opaque; the face below level of antennae except black curved lines encroaching in the upper clypeal sutures, scape in front, labrum, mandibles except tips, inferior orbits extending a short distance upward behind eye, collar, tubercles, tegulae, elevated portions of mesoscutellum and metanotum, a large transverse irregular patch on pleura which is much narrowed in the middle, tiny dot below wings, small spots on the sides of propodeum, broad complete bands on tergites 1-6 which are fairly even except on 2 where the band is considerably narrowed medially, urn-shaped mark on sternite 1 and broad bands involving most of sternites 2-6, and whole of apex, bright lemon yellow. Antennae bright red, above with a blackish line, joint 3 slightly less than one-half as long as 4. Head and thorax coarsely, closely and shallowly punctured, very sparingly short thin pale haired on cheeks, lower pleura, mesoscutellum and sides of propodeum. Legs yellow, strongly suffused with reddish on trochanters and femora; the coxae behind, last four trochanters behind, middle femora behind, whole of posterior femora except knees, and stripes on last four tibiae behind, black or blackish. Wings hyaline, feebly darkened apically, nervures and stigma yellowish, basal nervure interstitial with transverso-medial. Apex feebly notched.

Type.—West Point, Nebraska, ♀.

Allotype.—Type locality, ♂.

Nomada (Heminomada) fragilis Cresson.

1878. *Nomada fragilis* Cresson, *Trans. Am. Ent. Soc.*, VII, p. 79, ♂.

1903. *Nomada (Xanthidium) fragilis* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, p. 593, ♂.

1905. *Nomada fragilis* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 73, ♂.

1907. *Nomada fragilis* Cockerell, *University of Colorado Studies*, IV, p. 248, ♂.

The writer recognizes this species, hitherto recorded only from Colorado and New Mexico, in two males from Sioux county, Nebraska, collected in the Bad Lands at the mouth of Monroe canyon, May 28, 1901, on *Homalobus tenellus*, by L. Bruner.

SPECIES FROM OUTSIDE NEBRASKA

Nomada (Heminomada) alpha Cockerell, var.

1905. *Nomada alpha* Cockerell, *Bull.* 94, Colorado Exp. Sta., pp. 84-85, ♀.

This species was described from a unique female type collected at Fort Collins, Colorado, May 20, 1903, at flowers of

Bursa bursa-pastoris, by F. C. Bishopp. The writer has before him a female from Ute creek, Costilla county, Colorado, collected at 9,000 feet by L. Bruner on June 27, 1907. This specimen is obviously conspecific with *N. alpha*, but the erythrization has not progressed so far as in the type. Compared with the description of *N. alpha*, our specimen differs as follows: The mandibles except the black tips, the tegulae, a very broad transverse band involving most of the mesopleura, the centers of the red propodeal spots, the mesoscutellum (dully), spots on posterior femora apically, on bases of posterior tibiae and apices of middle tibiae, and whole of anterior tibiae within, yellow (these parts are wholly or mostly red or reddish in the type of *alpha*, except that the mesoscutellum is red suffused with yellowish); black facial and ocellar patches smaller and wholly separated by a large red area, the mesoscutum merely with a narrow median line (the facial and ocellar patches are connected in the type of *alpha*, forming a solid patch except for a red mark in front of median ocellus, and the mesoscutum has a median and two lateral poorly defined black stripes); and the large pyriform lateral marks on tergites 2 and 3 are connected to form bands, barely so on 2 but very distinctly so on 3 (these separated by red in the type of *alpha*, causing them to appear as widely interrupted bands). These differences are sufficient to form a variety scarcely worthy of a name but which may be fully characterized as follows:

♀. Length 8 mm. Red; the clypeus, triangular lateral face marks extending above level of insertion of antennae, scape in front, labrum, mandibles except tips, very broad postorbital band nearly attaining the summit of the eye, collar, tubercles, very broad transverse band involving most of mesopleura, tegulae, large nearly coalesced spots on lobes of mesoscutellum, elevated portions of metanotum, centers of large red spots on sides of propodeum, stripes or spots on both faces of the femora at least apically, anterior tibiae within, spots on apices of middle and bases of posterior tibiae, lateral spots or bands on the sides of the otherwise red first abdominal tergite, bands on tergites 2-5, those on 2 and 3 much narrower toward middle and there all but interrupted, those on 4 and 5 uniformly broad, and ventral sternites 2-5 except the broadly smooth rufo-testaceous apical margins of 2-4, all yellow and mostly brightly so. Spots around bases of antennae extending very narrowly down in the upper clypeal sutures and in the clypeal-supraclypeal suture so as to form

an A, patch involving ocelli, head behind, propleura, narrow anterior and posterior margins and median line on mesoscutum, depressed areas under wings and on sides of mesoscutellum and metanotum, coxae behind, metapleura and propodeum except large yellow-spotted red areas on the sides of the posterior face of the propodeum, which do not encroach on enclosure, all black. Antennae, except scape in front, wholly red, joint 3 heavy, slightly exceeding 4. Wings subhyaline, faintly apically clouded, nervures and stigma pale red, basal nervure distinctly basad of transverso-medial nervure. Legs, except for the yellow marks mentioned and slight dark lines on the posterior femora behind, bright red, the tibiae outwardly tuberculate and armed apically with three large stout strongly recurved setae, the hair on hind basitarsi within pale golden. Head and thorax coarsely and closely but shallowly punctured, abdomen minutely reticulate. Hair all white, very thin and inconspicuous except on face, cheeks, lower pleura, mesoscutellum and metanotum, and propodeum, where it is fairly copious and longer.

Material.—Ute creek, Costilla county, Colorado, 9,000 feet, June 27, 1907 (L. Bruner), ♀.

N. alpha is most closely allied to the *morrisoni-flagellaris-crawfordi-elrodi-obliterata*-etc. group of females, but differs from all of them except *flagellaris* in the heavy third antennal joint which is longer than the fourth. Thus, as Cockerell states, the proportion of the antennal joints would run it in Robertson's table to *Holonomada* while its very close relatives belong to *Heminomada* (= *Xanthidium*), and the male is unquestionably an *Heminomada*; obviously, this is one of the points where the two subgenera merge more or less. The species is close to *N. morrisoni* Cresson, but further differs in smaller size (*morrisoni* is 10–11 mm. long), in having tergite 1 red with its band reduced to narrow lateral spots, and the bands on tergites 2 and 3 much narrowed or wholly interrupted by the encroachments of the broad red bands on the apical margins and large red medio-basal areas (in *morrisoni* the tergites have complete broad yellow bands, that on tergite 1 being usually more or less deeply notched on the anterior middle, but those on 2 and 3 of uniform width and not narrowed by the encroachments of the narrowly reddish apical margins or by red medio-basal areas), in the red or mostly red propodeal spots (these yellow margined by red in *morrisoni*), and in the almost wholly red mesoscutum (*morrisoni* has the

anterior middle of the mesoscutum black). While the third antennal joint may be longer than indicated for *morrisoni* it is probably not longer than in *N. (morrisoni) flagellaris* Ckll., nor is the fourth joint longer than the fifth; and while the mesoscutum is colored as in *flagellaris*, there is no yellow on the enclosure, the insect is much smaller, the coxae are black behind, and tergites 2 and 3 have interrupted or very much narrowed bands. It is much smaller than *N. crawfordi* Ckll., and further differs in the much narrowed or medially interrupted bands on tergites 2 and 3, the propodeum black with red areas sometimes enclosing small yellow spots on each side of the posterior face but these not encroaching on enclosure, the flagellum wholly red above, the hind femora with little or no black, the third submarginal cell not so strongly angled on outer margin, etc. From *N. elrodi* Ckll., and *N. obliterata* Cresson, the presence of yellow marks on tergite 1 and numerous other differences are diagnostic. From *N. rhodoxantha* Ckll. and *N. dilucida* Cresson, it differs also in the longer third antennal joint, the lack of a complete band on tergite 1, the largely yellow venter, etc. Along with this Ute creek female is a male collected in the same locality on the next day, June 28, 1907, by H. S. Smith. This male is, almost without the slightest doubt, that sex of *N. alpha*, so is described below:

♂. Length 8.5 mm. Black; clypeus, triangular lateral face marks extending narrowly along orbits about to level of insertion of antennae, orbits beneath, labrum, mandibles except tips, scape in front, lateral lines on collar, tubercles, small rounded spot beneath on mesopleura, two spots on mesoscutellum, complete bands on tergites 1-6 (that on tergite 1 being narrow and notched on the wavy anterior margin medially, that on 2 broad but medially narrowed, those on 3-6 subuniformly broad and occupying the entire tergite except the narrow black apical margins), rather bright yellow. Flagellum dark red beneath, above with a black line, the scape behind except the yellow apex, black, antennal joint 3 two-thirds as long as 4. Head and thorax coarsely, closely and shallowly punctured. Clypeus and supraclypeus with appressed silky white hair, the labrum, cheeks, occiput and thorax with longer, thin, erect, white hair, becoming dense and silvery on pectus. Legs red, the coxae behind, spots on trochanters behind, areas on first four femora behind, and posterior face of hind femora (except knees) with a large area on their anterior face, black. Wings hyaline, darkened along apical margin, venation as in the ♀. Apex reddish, slightly but distinctly notched.

Allotype.—Ute creek, Costilla county, Colorado, 9,000 feet, June 28, 1907 (H. S. Smith), ♂.

The male of *alpha* is exceedingly close to *N. elrodi* ♂, but differs in the shorter lateral face marks which come to an acute point above (broader and more or less truncate above in *elrodi*), the lack of a postorbital stripe (always a yellow stripe on posterior orbits below in *elrodi*) and the black apical margins of tergites 1-6 and sternites 2-6 (these usually reddish or suffused with that color in *elrodi*). The small size and hairy clypeus easily separates it from *crawfordi* ♂. The restricted yellow areas on the face and the short lateral marks distinguish it at a glance from *obliterata* ♂. From *N. fragilis* Cresson, it may be separated by the longer third antennal joint and non-denticulate flagellum. In Cockerell's table of Rocky mountain species it runs to *N. pallidella* Ckll., but that species seems to be a *Nomada* sens. str. allied to *taravacella*, *modocorum* and *subangusta*, and *alpha* differs from it in the brighter yellow maculations, tergite 1 without red and its band complete, bands on 4 and 5 not enclosing a dark spot, venter black with yellow bands attaining the lateral margins of the sternites, less black on the first four femora, hair of mesoscutum white, redder nervures and different venation, and face broader than long.

***Nomada (Heminomada) laramiensis* n. sp.**

♂. Length 8 mm. Black; clypeus, lateral face marks extending broadly up orbits to level of insertion of antennae and there terminating broadly, line under eye, posterior orbits extending two-thirds of the distance to summit, mandibles except tips, labrum, scape in front, collar, tubercles, tegulae, large L-shaped spots on mesopleura anteriorly, large spots on lobes of mesoscutellum, spots on legs, and abdominal bands, bright yellow. Head and thorax coarsely and closely punctured, abdomen very minutely and feebly punctured. Clypeus, supraclypeus, and sides of face directly beneath the insertion of antennae densely covered with appressed silvery sericeous hair, similar to that of *N. elrodi* but much denser; vertex, cheeks and most of thorax copiously provided with erect pale hair, that on vertex, mesoscutum, mesoscutellum and metanotum distinctly tinged with ochreous, that on cheeks, pleura and propodeum gray, becoming silvery on the pectus. Scape somewhat swollen, bright yellow with a black line behind, flagellum bright red with the five basal joints black-spotted above, antennal joints 3 a shade over one-half as long as 4, due to the

shortening of joint 4. Wings clear except for the darkened apical margin, nervures reddish, stigma bright ferruginous, basal nervure slightly but distinctly basad of transverso-medial nervure, the second submarginal cell broad and receiving the first recurrent nervure well beyond its middle. Legs red, spots on coxae and trochanters in front, apices of all the femora and a wash on anterior face of front femora, apices of all the tibiae and a narrow line down anterior face of front femora, apices of all the tibiae and a narrow line down anterior face of middle tibiae, broader lines down both faces of hind tibiae and whole of front tibiae except a red spot behind, together with the bases of the basitarsi, all yellow; the coxae behind, last four trochanters behind, and more or less well-defined lines in the centers of the red areas on femora and tibiae behind, black or blackish. Abdomen yellow, the base of tergite 1 blackish with a wavy posterior margin, the apical margins of tergites 1-6 reddish, the extreme bases of tergites 4 and 5 black if the segments are fully exerted, the apex reddish and slightly notched apically. Venter yellow, the apical margins of sternites 1-5 narrowly reddish, at least laterally, and sternite 6 with reddish basal spots.

Type.—Laramie, Wyoming, June 10, 1893 (collector unknown), ♂.

Paratype.—Type lot, 1 ♂.

The paratype lacks the head and abdomen but is otherwise identical with the type. In Cockerell's table of Rocky mountain species this runs to *N. luteopicta* Ckll., and further tallies quite closely with the description of that species, but apparently differs in larger size, in having a yellow line behind eyes and considerably more yellow on the legs, especially on the tibiae and basitarsi, in having the hair of the vertex and thorax above tinged with ochreous, the wings clearer and with a different venation (second submarginal cell broad and basal nervure basad of transverso-medial), etc.; in fact, if the males of *luteopicta* belong with the female associated with it by Cockerell, which seems doubtful, it is a *Nomada* sens. str. *N. laramiensis* is, however, very closely related to *N. elrodi* ♂, but is separable by the comparatively shorter fourth antennal joint, the much greater amount of yellow on the legs, the more copious pubescence on the head and thorax, especially on the face in front, the clear yellow tegulae and larger pleural spot, etc. From the male of *N. alpha*, just described, it differs in much the same characters.

Subgenus *Holonomada* Robertson, 1903.

KEY TO THE NEBRASKA SPECIES

Females

- Sides of the propodeum above with prominent projecting angles; propodeum wholly black; vernal species1
- Sides of the propodeum not at all angulated; propodeum black or with two yellow patches or spots; autumnal species2
1. Mesopleura and mesoscutum black; tubercles and tegulae yellow.
- Posterior orbits with a yellow band; lateral face marks, face in front, clypeus above, labrum, mandibles except tips, mesopleural spots, mesoscutellum and most of tibiae and tarsi, usually yellow; broad complete yellow bands on tergites 1-5; 11-13 mm.*superba*
- Posterior orbits black; most of facial ornaments, scape in front, mesopleural spots, mesoscutellum and legs red; band on tergite 1 red with yellow oval lateral spots, those on 2 and 3 narrowly medially interrupted, on 4 and 5 complete; 8.5 mm.*superba* var.
1. Mesopleura and mesoscutum, except for a broad median and feeble lateral lines and anterior and posterior margins, which are black, red, the tubercles and tegulae also red; lateral face marks, whole of antennae, clypeus, labrum, mandibles except tips, postorbital line, collar, mesoscutellum, line on metanotum, legs and most of venter, red; broad complete yellow bands on tergites 1-5; 10.5 mm.*nebrascensis*
2. Abdominal tergite 1 black or with a reddish stain, 2-3 with interrupted, 4-5 with complete yellow bands; propodeum black or slightly stained with red apically, without yellow spots; smaller, 7-7.5 mm.*placida*
2. Abdominal tergites 1-5 with complete yellow bands, those on 1-3 gradually constricted medially but not interrupted except that the band on 1 is rarely so; propodeum with large yellow spots on the sides; larger, 8-11.5 mm.3
3. Mesoscutum black, often with reddish sides; eastern species; 8-11.5 mm.*cincta*
3. Mesoscutum usually red, at least laterally, sometimes black; western species; 9 mm.*zebrata*
- (The female of *superba malvastri* is unknown or unrecognized).

Males

- Sides of the propodeum above with prominent projecting angles; mesoscutellum more strongly bilobate; vernal species1

- Sides of the propodeum not at all angulated; mesoscutellum flattish, weakly bilobate (if at all); autumnal species.....2
1. Posterior orbital margins black; face with considerable black beneath level of insertion of antennae medially; lateral face marks not attaining summit of orbits; usually but a small or no pleural spot, the mesoscutellum with two yellow spots, metanotum black; trochanters black, the tibiae, except a red spot on posterior face, and the tarsi, yellow; apical margin of tergite 1 and most of venter, black; 10-13 mm.*superba*
 1. Posterior orbital margins with a yellow line; face beneath level of insertion of antennae wholly yellow; lateral face marks extending up to summit of orbits; a large pleural spot, the mesoscutellum and a line on metanotum, yellow; trochanters and most of tibiae red, the tarsi and apices with more or less of the anterior faces of the first four tibiae, yellow; apical margin of tergite 1 and most of venter, red; 10 mm.
superba malvastris
 2. Abdominal tergite 1 entirely black or with small yellow lateral spots, 2-4 with broadly interrupted, 5-6 with narrowly complete yellow bands; propodeum wholly black; flagellum black above, obscurely reddish below; scape normal; 7-8 mm.*placida*
 2. Abdominal tergite 1 black with large lateral spots, 2 with a narrowly interrupted band, 3-5 with complete bands, all cream color; sides of propodeum with cream color elongate oval spots; flagellum dusky beyond second joint; scape subglobose; 11 mm.*dawsoni*
 2. Abdominal tergites 1-6 with complete yellow bands; sides of propodeum with large yellow spots; flagellum red with a dark median ring; scape swollen3
 3. Mesoscutum black with the lateral margins sometimes obscurely reddish; scape more swollen, a distinct black ring on antennal joints 6-12; 7-11 mm.*vincta*
 3. Mesoscutum black with broad yellow lines on the lateral margins; scape less swollen, the flagellar ring less distinct, merely dusky; 9-11 mm.*zebrata*
- (The male of *nebrascensis* is unknown or unrecognized.)

Nomada (Holonomada) *superba* Cresson.

1863. *Nomada superba* Cresson, *Proc. Ent. Soc. Phil.*, II, pp. 281-82, ♂.
 1897. *Nomada superba* Robertson, *Trans. Acad. Sci. St. Louis*, VII, pp. 340-41, ♀, ♂.
 1903. *Holonomada superba* Robertson, *Can. Ent.*, XXXV, p. 177, ♀, ♂.
 1905. *Nomada superba* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 73, ♂ (in part).

This species, described from a single male from Pike's Peak, Colorado, has been identified by Robertson in material from southern Illinois, and the writer has before him a pair of Illinois specimens determined by Robertson. Two males from Nebraska, one collected at Ashland, May 28, 1910, on *Erigeron philadelphicus* (M. H. Swenk) and the other at South Bend, May 18, 1911, on *Fragaria americana* (M. H. Swenk), both agree exactly with Cresson's description except that the spots on the pleura are small and round and the base of the first abdominal tergite and first two sternites are not stained with red as described by Cresson; but the male Illinois specimen determined by Robertson agrees with the Nebraska males in these respects, which are to be regarded as merely slight individual color variations. Along with the first mentioned male (Ashland, May 28, 1910, on *Erigeron philadelphicus*), was collected a female which is considerably different from the Illinois female and Robertson's description of that sex. It is much smaller (only 8.5 mm. long while the Illinois series is 11-13 mm. long), has no yellow on the posterior orbits (a nearly complete yellow orbital band on Illinois specimens), only a slight yellow stain in middle of lateral face marks (these, together with clypeus above, scape in front, labrum and mandibles usually largely yellow on Illinois specimens), the pleural spot, mesoscutellum and legs are red (these usually yellow or largely so in Illinois specimens), the first abdominal tergite has a broad red band bearing a small oval yellow spot on each side (a broad yellow band in Illinois specimens), and the bands on tergites 2 and 3 are interrupted with a red line (complete in Illinois specimens). While these differences are rather great for even this variable genus and species, yet the antennal structure, angulated and wholly black propodeum, puncturation, etc., in fact the whole habitus of the insect, agrees precisely with *superba*, and this, in conjunction with the fact that the specimen was captured in company with the almost typical *superba* ♂ above mentioned, lead to the conclusion that this is but a wide color and size variation of *superba*, and the specimen is so regarded by the writer.

Nomada (Holonomada) superba malvastris n. subsp.

1903. *Nomada superba* var. *a* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, p. 580, ♂.

1905. *Nomada superba* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 73, ♂ (in part).

♂. Length 10 mm. Similar to typical *N. superba* ♂, except in the following details: Posterior orbits, except top, with a yellow line (lacking in typical *superba*); whole of face beneath level of insertion of antennae yellow (considerable black beneath level of insertion of antennae medially in *superba*); yellow lateral face marks extending upward rather broadly and sending a narrow line up to summit of orbits (falling considerably short of summit of orbits in typical *superba*); a large triangular yellow pleural spot below tubercles (small or wanting in most specimens of *superba*); whole of mesoscutellum and a line on metanotum yellow (mesoscutellum merely with two yellow spots, metanotum black, in typical *superba*); trochanters, femora and most of tibiae red, the tarsi, and apices with more or less of anterior faces of first four tibiae, yellow (in *superba* the trochanters are black, the femora mostly red, the tarsi and the tibiae, except a red spot on posterior face, are yellow); yellow band on first abdominal tergite broader and margined behind with red instead of black, that on tergite 2 very broad and scarcely at all indented or narrowed medially (much so in *superba*); venter largely red, banded with yellow (ground color of venter mostly black in typical *superba*); wings clearer and lacking much of the apical darkening of typical *superba*, the nervures much paler.

Type.—Warbonnet canyon, Sioux county, Nebraska, June 16, 1901, on *Malvastrum coccineum* (M. Cary), ♂.

Aside from *N. superba*, this distinct form needs no comparison with other males of *Nomada* belonging to this subgenus (*Holonomada*), since its large size, angled and unspotted propodeum, yellow tegulae, strongly bilobate mesoscutellum, etc., will serve to distinguish it from any other of our North American species. This form is the same as that described by Cockerell as var. *a*, from a single male collected at Cheyenne, Wyoming, which is only a short distance west of the type locality of *malvastris*, on June 15, and now in the U. S. National Museum collection.

Nomada (Holonomada) nebrascensis n. sp. (or *superba* var. ?).

♀. Length 10.5 mm. Head and thorax red, without any yellow anywhere. A large area beginning at level of insertion of antennae and extending upward as a gradually widening patch over upper face and vertex and involving all of vertex and cheeks except the broad red orbital

margins, narrow lines extending downward in lateral supraclypeal and upper clypeal sutures, apical half of mandibles, a broad median line and feeble lateral lines on mesoscutum with its anterior and posterior margins along sutures, propleura, depressed areas under wings and at sides of mesoscutellum and metanotum, broad line in mesoscutellar-metanotal suture, metapleura, and whole of propodeum black. Sides of propodeum above with prominent projecting angles as in *superba*. Antennae wholly bright red, joint 3 very distinctly exceeding 4. Head and thorax coarsely, closely and shallowly punctured. Legs wholly red except the coxae behind, which are black. Tegulae red. Wings subhyaline, broadly and deeply darkened along apical margin, nervures and stigma pale reddish, basal nervure distinctly but not greatly basad of transverso-medial nervure. Tergum black with broad complete even yellow bands on tergites 1-6, that on 1 median, those on 2-6 basal and involving most of the tergites. Venter red, the base of sternite 1 and apical marginals of sternites 1-3 black or blackish. Pygidial area on tergite 6 broad, rounded, densely covered with appressed hair.

Type.—West Point, Cuming county, Nebraska, ♀.

The absolute lack of any yellow ornamentation on the head and thorax distinguishes this form from almost all of our species of *Holonomada*, in fact it is in this respect aberrant from one of the chief diagnostic characters of the subgenus, yet it is not a *Nomada* sens. str., but a species closely related to *N. superba* Cresson, if not merely an extreme color variation of that species. Robertson mentions a variety of *superba* occurring in Illinois in which the ornaments are *all red* except the yellow bands on the tergites, and in which the mesoscutum may have two or four rufous bands. Our form certainly resembles this but is even redder, having the mesoscutum red except for a median and very vague lateral lines, the mesopleura red and all of the legs beyond the coxae red. *N. (Heminomada) collinsiana* Ckll. is another species without yellow on the head or thorax, but in that species joint 3 of antennae is a little shorter than 4, the band on the first abdominal tergite is reduced to yellow lateral spots, the hind femora have a broad black stripe behind, etc. *N. (Heminomada) placitensis* Ckll. is also mostly red on the head and thorax but is also quite distinct; compared with the type of *placitensis* in the U. S. National Museum *nebrascensis* differs from *placitensis* in having the third antennal joint distinctly

longer than the fourth (these equal in *placitensis*), in lacking the reddish on the apical margins of tergites 1-4 and basal margins of 1 and 2, especially 2, in lacking the yellow spots on tubercles and lower corners of face, in having much less black on the legs, etc.

Nomada (Holonomada) vincta Say.

1837. *Nomada vincta* Say, *Boston Journal Nat. Hist.*, I, p. 401, ♀ (not ♂); Leconte edition, II, pp. 778-79.
 1863. *Nomada vincta* Cresson, *Proc. Ent. Soc. Phil.*, II, pp. 284-86, ♂ (not ♀, which is *affabilis*).
 1895. *Nomada vincta* Robertson, *Trans. Am. Ent. Soc.*, XXII, pp. 123-24, ♀ ♂.
 1903. *Holonomada vincta* Robertson, *Can. Ent.*, XXXV, p. 177, ♀ ♂.
 1903. *Nomada vincta* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, pp. 580-82, ♀ ♂.
 1905. *Nomada (Holonomada) vincta* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 73 and p. 78, ♀ ♂.

A common autumnal species in Nebraska. A series of eleven females and four males collected during August and up to September 18 at Lincoln and West Point, Nebraska, is before the writer. They were captured at flowers of *Grindelia squarrosa*, *Helianthus annuus* and *Solidago rigida*. A female and two males from Manhattan, Kansas, collected at flowers of *Helianthus tuberosus*, August 24 and 25, 1908, by O. A. Stevens (Nos. 927, 934, 935), are also before the writer, as well as a series of seven females (Nos. 2551, 2640, 2646, 2793, 2794, 2795, 2967) and six males (Nos. 2138, 2153, 2139, 2791, 2792, 2966) from Fargo, North Dakota, collected by Mr. Stevens, August 4 to 25, at flowers of *Grindelia squarrosa*, *Helianthus maximiliani*, cultivated *Helianthus*, and *Solidago serotina*. Mr. Stevens sent the writer for examination a female from Lake Park, Minnesota, captured August 22, 1911, on *Rudbeckia laciniata* by C. H. Waldron, also.

Nomada (Holonomada) zebrata Cresson.

1878. *Nomada zebrata* Cresson, *Trans. Am. Ent. Soc.*, VII, p. 73, ♀ ♂.
 1903. *Nomada zebrata* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, pp. 580-83, ♀ ♂.

1905. *Nomada (Holonomada) zebrata* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 73 and p. 78, ♀♂.

A male collected at Glen, Sioux county, Nebraska, August 12, 1906, at flowers of *Helianthus petiolaris* (H. S. Smith) and a female collected at the same locality, August 20, 1906, by the same collector on *Cleome serrulata*, are before the writer.

***Nomada (Holonomada) placida* Cresson.**

1863. *Nomada placida* Cresson, *Proc. Ent. Soc. Phil.*, II, pp. 291-92, ♀♂.

1903. *Holonomada placida* Robertson, *Can. Ent.*, XXXV, p. 177, ♀♂.

A series of three females and one male collected at Lincoln, Nebraska, in August and September, is before the writer.

***Nomada (Holonomada) dawsoni* n. sp.**

♂. Length 11 mm. Black; a quadrate spot involving most of clypeus medially, suboval spots on sides of clypeus completely separated from the median spot by broad black bands, the squarish supraclypeus, large oblong spots on sides of face and contiguous to orbits, mandibles except tips, a short line behind eyes medially, scape in front and on apical margin behind, and a large spot involving practically all of tegulae, pale yellow; the collar, a curved spot on mesopleura just beneath tegulae, two tiny spots on mesoscutellum, most of metanotum, elongate oval spots on sides of propodeum, and abdominal maculations, cream color. Scape subglobose, pedicel black, first two joints of flagellum entirely red and next three red beneath; rest of antennae black, joint 3 exceedingly long, almost twice as long as 4, and =4+5. Vertex and mesoscutum shiny, finely and densely punctured, the mesoscutum with five broad longitudinal furrows which are most obvious anteriorly. Mesoscutellum uniformly slightly convex, not at all depressed medially, punctured like mesoscutum. Wings slightly brownish, nervures dark reddish brown, stigma reddish, basal nervure interstitial with transverso-medial nervures. Coxae and trochanters black with their apices broadly yellow behind, first four femora black behind with large yellow spots beneath at apex while in front the basal half is black and the apical half reddish, hind femora reddish with the base beneath and behind largely blackish, and a yellow apical spot above, tibiae yellow with large reddish spots within toward apex, the tarsi reddish except for yellowish suffusions on last four basitarsi externally. Abdomen finely and closely punctured, tergite 1 with large irregular lateral spots, 2 with a narrowly interrupted band, 3-5 with complete bands, all cream color. Venter black with interrupted cream color bands on sternites 2-4. Apex entire, rounded, black.

Type.—Harrison, Sioux county, Nebraska, August 20, 1912 (R. W. Dawson), ♂.

A very distinct and beautifully marked species. In Cockerell's table (*Bulletin* 94, Colorado Exp. Sta., pp. 70-75) it runs to *N. aquilarum* Ckll., to which it is related, but is very much larger and otherwise different. It is even closer to *N. dacotensis*, described on a subsequent page, but differs from that species also in many ways. It is named after Mr. R. W. Dawson, its collector, in recognition of his work on the blister-beetles (Meloidae).

SPECIES FROM OUTSIDE NEBRASKA

Nomada (*Holonomada*) *flavopicta* n. sp.

♀. Length 7.5 mm. Black; the clypeus, broadly triangular lateral face marks which end in a point slightly above level of insertion of antennae, labrum, basal two-thirds of mandibles, line under eye, scape in front, collar, tubercles, round pleural spot beneath tubercles, tegulae, large spots involving lobes of mesoscutellum, line on metanotum, legs (except the coxae, trochanters, broad lines on first four femora above and all of posterior femora except a broad line on anterior face, broad lines on tibiae behind, and a narrow line on hind basitarsi behind, all of which points are contrastingly black), broad complete bands on tergites 1-6 which are gradually narrowed toward the middle on anterior margins of 1-3, and whole of venter except the first sternite, bright lemon yellow. Head and thorax coarsely and closely punctured. Antennal joint 3 distinctly longer than 4, the flagellum dark red with a black line above. Wings uniformly slightly shaded, the nervures and stigma ferruginous, the basal nervure slightly basad of transverso-medial, both the second and third submarginal cells greatly narrowed above. Head and thorax with rather copious, short, erect grayish white hair.

Type.—Pullman, Washington, May 14, 1898 (collector ?), ♀.

This species is apparently related to *N. edwardsii* Cresson, but differs in the lack of yellow lines or spots on the sides of the mesoscutum or stripes on the disk of the mesoscutum, black posterior orbits, lack of a yellow spot in front of middle ocellus, etc. From *N. pecosensis* Ckll., it differs in the wholly black propodeum, lack of a supraclypeal mark, small pleural spot and more abundant thoracic hair. It is, in fact, closely related to *N. superba* Cresson, but is much smaller, lacks the angles on the sides of the propodeum above, has the legs wholly yellow and

black without a tinge of red, and other differences. From *N. vinnula* Cresson, it differs in smaller size, lack of yellow on supraclypeus, posterior orbits and propodeum black, much smaller pleural spot, wings not distinctly apically darkened, lack of black bands on venter, etc. Of the other Washington species of this subgenus (see *Psyche*, XVII, p. 98), it differs from *N. mutans* Ckll., at once in the bright lemon yellow maculations, and is much too small to be the unknown female of *N. hesperia* Ckll.

Nomada (Holonomada) snowii Cresson.

1878. *Nomada snowii* Cresson, *Trans. Am. Ent. Soc.*, VII, p. 75, ♀♂.

1903. *Nomada snowii* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, p. 609, ♀.

1905. *Nomada snowi* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 72, ♀♂.

A female from Custer, South Dakota, agrees exactly with Cresson's description of his unique type female from Colorado, except that the third antennal joint is quite distinctly longer than the second, and the writer does not feel justified in referring this specimen elsewhere than to *snowii*. Cockerell (*l. c.*) places *snowii* in the subgenus *Micronomada* from Cresson's description, but Cresson says nothing about the presence of spines on the anterior coxae. A female from Valley City, North Dakota, August 13, 1912, on *Grindelia* (O. A. Stevens, No. 3575) resembles the Custer specimen except that the first abdominal tergite is black and has a broad, complete white band, the clypeus and supraclypeus are yellow, slightly suffused with reddish marginally, and the mesopleura have larger white L-shaped spots and little or no red color. The recently described *N. mutans* Ckll. is allied, resembling *snowii* in the creamy white maculations, but *snowii* differs from it in the opaque, cancellately punctured mesoscutum, entirely red legs except for the creamy spots, large L-shaped pleural spot, etc. *N. vierecki* Ckll., which also has creamy maculations, has coxal spines and therefore belongs to *Micronomada*.

Nomada (Holonomada) besseyi n. sp.

♂. Length 9 mm. Deep black; large triangular lateral face marks with digitate extensions along orbits nearly to their summits, two lateral oblong clypeal spots, labrum basally, collar, tubercles, a broad transverse bar

across middle of mesopleura, large spots on the apices of the anterior faces of the coxae, two round spots on mesoscutellum, elevated portion of metanotum, narrow even and continuous bands across the middle of tergites 1-5 and similar bands on sternites 2 and 3, that on 2 narrowly medially interrupted, bright contrasting lemon yellow. Antennae black, the scape behind and on lower half in front and the third antennal joint obscure red, the scape swollen as in *vincta*, joint 3 very distinctly longer than 4. Face square, orbits parallel. Head and thorax coarsely, closely and shallowly punctured, tergum indistinctly punctured, venter largely shining and impunctate. Entire body nearly devoid of hair, some exceedingly short and thin pale hair on cheeks, vertex, mesoscutellum and metanotum. Legs black; the tarsi, anterior faces of the first four tibiae and front femora, a line on posterior tibiae and posterior femora in front, and ends of middle femora, more or less reddish, while the posterior apical margins of the trochanters, knees of middle and hind legs and lines at ends of their femora, spot at apex of outside of middle tibiae and a broad line on posterior tibiae behind, are yellow. Tegulae red, shining, strongly sparsely punctured. Wings clouded with the apical margin darkened, clearer areas beyond and below submarginals, the nervures and stigma fuscous, basal nervure interstitial with transverso-medial nervure, the submarginal cells moderately narrowed above. Apex entire, rounded.

Type.—Manhattan, Kansas, August 24, 1908, on *Helianthus tuberosus* (O. A. Stevens, No. 933), ♂.

A very handsome, neat and distinct, contrastingly black and yellow, species, which the writer takes great pleasure in dedicating to Dr. Charles E. Bessey, under whose able direction his studies on the rôle of bees in the pollination of the Nebraska flora is being carried on. The species seems to fall near to *N. placida* Cresson, but is distinct at once in its larger size, yellow band on tergite 1 and complete bands on 2 and 3, mostly black clypeus and mandibles, black flagellum, red tegulae, and numerous other differences. It is also very closely allied to *N. vincta* Say, and to *N. affabilis* Cresson, but differs at once in the black propodeum and flagellum, largely black clypeus, posterior orbits and legs, etc. The propodeum is not angulated above as in the spring-flying *superba* group.

Nomada (Holonomada) aquilarum Cockerell.

1903. *Nomada aquilarum* Cockerell, *Ann. Mag. Nat. Hist.*, ser. 7, XII, pp. 208-09, ♂.

1905. *Nomada aquilarum* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 74, ♂.

This species has for several years been known only from the unique male type collected at 8,000 feet in the White mountains of New Mexico, August 18, at flowers of *Erigeron macranthus*. The writer has before him a pair collected at Fargo, North Dakota, by O. A. Stevens, the male August 13, 1910, at flowers of *Solidago serotina* (No. 2154) and the female July 31, 1910, at flowers of *Lactuca pulchella* (No. 2023). The male agrees exactly with the type in the U. S. National Museum except that the mesoscutellum has two coalesced cream colored spots, the labrum is cream colored basally (but becomes brownish apically), the cream colored spots on the legs are slightly more extended (on one hind tibia the basal and apical marks are connected by a narrow line), and the flagellum is darker, being black above and dark reddish brown beneath, with the third antennal joint concolorous with the rest of the flagellum. The female, which has never been described, has the following characters:

♀. Length 6 mm. Black, rather shining. Head entirely black, clypeus finely and closely punctured, the face, vertex, and cheeks more coarsely and closely punctured, the thorax similarly but still more coarsely punctured, all practically devoid of pubescence. Tubercles, and two spots on the mesoscutellum which are coalesced to form a diamond-shaped patch, cream color. Antennae black above, dark reddish below, joint 3 distinctly longer than 4. Legs black, the anterior femora and tibiae in front, the first four tarsi, all the knees, and a line on middle tibiae in front, reddish testaceous to yellowish red. Outer face of hind tibiae strongly tuberculate, the apex of the joint with three or four very short inconspicuous straight bristles. Tegulae shining dark red. Wings hyaline, heavily darkened on a broad apical margin and in marginal and submarginal cells, a clear area beyond the latter, nervures blackish, stigma fuscous, basal nervure interstitial with transverso-medial. Abdomen conical, black, the sides of tergite 2 with large cuneate cream colored spots, 3 with similar spots, 4 with a narrowly interrupted band, 5 with a complete band, the anterior margin of the bands on 4 and 5 emarginate on each side. Pygidial area long, acuminate, not distinctly pubescent, densely punctured. Venter shining black, sternite 4 with narrow curved lateral cream colored lines.

Allotype.—Fargo, North Dakota, July 31, 1910, on *Lactuca pulchella* (O. A. Stevens, No. 2023), ♀.

Nomada (Holonomada) dacotensis n. sp.

♀. Length 8 mm. Black; a subtriangular spot on each side of the clypeus, a line on collar, the tubercles, sometimes a small spot on tegulae, coalesced spots on mesoscutellum forming a diamond-shaped patch, a spot at base and an elongate cuneate mark on the outer face of the hind tibiae, large cuneate marks on sides of abdominal tergites 2 and 3, complete bands on tergites 4 and 5 which are sometimes emarginate on anterior margin laterally, very pale yellowish or cream color. Head and thorax everywhere very densely punctured, coarsely so on thorax, vertex and face, more finely so on clypeus and cheeks, devoid of hair. Antennae black, rather strongly suffused with dark red toward base of flagellum beneath, especially on antennal joint 3 which is very distinctly longer than 4 or following joints except 12, the median joints distinctly broader than long. Legs black, the anterior femora and tibiae in front and whole of tarsi, middle knees and line on tibiae in front, red, yellow spots as mentioned. Tegulae shining, rufo-piceous. Wings slightly darkened basally, heavily darkened on a broad apical margin and in marginal cell, clearer in an area beyond third transverse cubital and second recurrent nervure, nervures and stigma black, basal nervure interstitial with transverso-medial on the basad side. Abdomen minutely punctured, tergum black except for the pale maculations mentioned, venter sometimes with pale bands on sternites 3 and 4 which are usually interrupted medially, and pale spots on sides of sternite 5.

Type.—Fargo, North Dakota, August 17, 1911, on *Grindelia squarrosa* (O. A. Stevens, No. 2803), ♀.

Paratype.—Type locality, August 14, 1911, on *Melilotus alba* (O. A. Stevens, No. 2604), ♀.

This species is allied to *N. aquilarum* Ckll., but differs in considerably larger size and more robust form, presence of yellow spots on the sides of the face and a yellow line on the collar, yellow marks on the hind tibiae, etc. The writer at first thought this to be the unknown female of *N. beulahensis* Ckll., which was collected in company with the type, but the larger size, pale maculations, etc., argue against this; moreover, *beulahensis* is apparently a *Nomada* sens. str. It is closely related to *N. mutans* Ckll., from Washington State, but differs in the wholly black clypeus, labrum, mandibles, posterior orbits, mesopleura and mesoscutum, the greatly reduced lateral face marks and pale

spots on legs, the lack of a band on tergite 1 and interrupted bands on 2 and 3, etc.

Nomada (Holonomada) asteris n. sp.

♀. Length 8 mm. Head, thorax and legs mostly bright red, the black or blackish areas involving only the tips of the mandibles, a small spot behind ocelli, the prosternum, lateral depressions of propleura, anterior mesopleural suture extending behind tubercles and under tegulae and anterior mesoscutal suture, depressed areas at extreme sides of mesoscutellum and metanotum and the suture between, lower metapleural plate, areas on inner side of hind tibiae and basitarsi, and a large cuneate area on mesoscutum which is as wide as the pale portion of the mesoscutellum posteriorly but which rapidly narrows anteriorly and does not attain the anterior margin of the sclerite. A spot on each side of collar, the tegulae, elevated portion of mesoscutellum and metanotum, and a narrow line on hind apical margin of posterior trochanters, clear yellowish white. Clypeus, labrum and face strongly and closely but rather finely punctured, becoming denser on the vertex, mesoscutum punctured like vertex, mesopleura similarly but more coarsely punctured. Antennae red, the first three joints brightly so, the following joints lightly suffused with dusky, joint 3 slightly but distinctly longer than 4. Tegulae red. Wings distinctly clouded, especially on apical margin, nervures fuscous, stigma edged with paler, basal nervure interstitial with transverso-medial nervure. Abdomen dark red, strongly, densely and rather coarsely punctured, apical margins of tergites 2-4 distinctly reflexed, apical margins of tergites 1-3 and whole of tergites 4-6 deeply suffused with fuscous, tergite 1 basally wholly clear red, 2 with large suboval yellowish white lateral spots, 3 and 4 with similar but slightly smaller spots, venter clear red. Body almost glabrous, the mesonotum and legs with exceedingly sparse and short pale hairs, the inner side of hind basitarsi with dense short grayish white hairs, and the sides of abdominal tergites 4-6 with sparse long pale bristles intermixed with tufts of curved black bristles on 6, 5 with an apical band of snowy white tomentum. Pygidial area acutely rounded at tip.

Type.—Manhattan, Kansas, September 19, 1908, on *Aster paniculatus* (O. A. Stevens, No. 1203), ♀.

A very distinct species. Apparently allied to *N. gutierreziae* Ckll., but has joint 3 of antennae less than 4 + 5, and lacks the creamy marks on the sides of face, base of mandibles, mesopleura, axillae, hind tibial apices, and first abdominal tergite, and has the bands on tergites 2-4 reduced to lateral spots. *N. (Nomada) adducta* Cresson is somewhat related, and seems in some respects more or less intermediate between *Holonomada* and *Nomada*

sens. str., but may be distinguished from *asteris* at a glance by the lack of the creamy ornaments on the mesoscutellum, metanotum, sides of collar and abdominal tergites 2-4, and the characteristic pubescence on the sides of the propodeum which is wholly lacking in *asteris*.

Subgenus **Gnathias** Robertson, 1903

KEY TO THE NEBRASKA SPECIES

Females

Abdomen light red, entirely without spots; head and thorax light red, the clypeus and lower anterior orbits suffused with yellowish; areas above insertion of antennae, about ocelli, on cheeks behind, propleura, metapleura, posterior face of last four coxae, and median line on mesoscutum and propodeum, sharply contrasting black; 9 mm. *siouxensis*

Abdomen with yellow lateral spots, at least on tergite 2; clypeus and anterior orbits less suffused with yellowish I

I. Size largest, 8-11 mm., usually about 10 mm. long; very dark red, the abdomen always with distinct yellow spots on the sides of tergite 2, rarely also on sides of 1, usually with additional spots on sides of 5, and frequently with more or less distinct yellow lines on bases of 3 and 4 *bella*

I. Size medium, 7-10 mm., usually about 8 mm. long; dark red, typically with conspicuous lateral yellow spots on tergites 2-5, sometimes on 1 also, those on 4 or 5 or on both frequently lacking, and infrequently those on 3 lacking also *lepida*

I. Size smallest, 5.5-8 mm., usually about 7 mm. long; paler red, tergite 2 always with distinct lateral spots, usually large and sub-pyriform but sometimes quite small and oval or round, tergite 3 usually immaculate but sometimes with small, usually indistinct lateral spots, following tergites always unspotted.

carolinae

(The female of *albofasciata* is unknown or unrecognized.)

Males

Abdominal bands and marks on face creamy white; scape black in front; mesoscutellum and metanotum black; 6.5-7 mm.

albofasciata

Abdominal bands or spots and marks on face yellow; scape red or yellow in front; mesoscutellum and metanotum usually red or spotted with red or yellow I

- i. Size largest, 7-10 mm., usually about 9 mm. long; abdomen black or blackish, the apical margins of the tergites suffused with red, tergites 2-6 with yellow bands, usually complete, that on 1 sometimes narrowly interrupted medially by a red line, those on 5 and 6 sometimes broken into spots, 1 usually with small lateral spots which are usually distinct but sometimes wanting; mesoscutellum and metanotum red; antennae red beneath, the scape yellow, above mostly black except the last six joints which are red*bella*
- i. Size medium, 6-8 mm., usually about 7.5 mm. long; abdomen blackish becoming more or less suffused with red on the apical margins of the tergites, tergites 2-6 typically with complete or narrowly medially interrupted yellow bands, those on 3-6 sub-basal and frequently concealed when the tergites are much retracted, sometimes wholly lacking on 4 and 5, 1 frequently with large yellow spots or a band; mesoscutellum black, black spotted with yellow or red or wholly red, metanotum sometimes more or less red; antennae red beneath, the scape usually yellow but sometimes red, above mostly black or blackish, this suffusion extending nearly to the tip*lepida*
- i. Size smallest, 5.5-7 mm., usually about 6 mm. long; abdomen mostly red, base of tergite 1 black and more or less distinct dark median or subapical bands may occur on 1-5, these usually narrow but sometimes extended to infusate most of the apical tergites, tergites 2-3 always with large distinct yellow lateral spots, these occasionally extended inwardly to form more or less narrowly interrupted or occasionally complete bands, in which case 3-4 have more or less obvious lateral yellow spots or bands, tergite 6 often with a yellow band or two yellow spots, tergite 1 rarely with small lateral spots; mesoscutellum usually wholly red, sometimes black with red spots on the lobes, metanotum usually red also, sometimes black; antennae beneath clear yellowish red, the scape in front often distinctly yellowish, above suffused with black more or less on the first seven joints, the last six joints clear red*carolinæ*

(The male of *siouxensis* is unknown or unrecognized.)

Nomada (Gnathias) bella Cresson.

1863. *Nomada bella* Cresson, *Proc. Ent. Soc. Phil.*, II, pp. 287-88, ♂.
 1863. *Nomada maculata* Cresson, *ibid.*, pp. 303-04, ♀ (♂?).
 1902. *Nomada bella* Robertson, *Ent. News*, XIII, p. 80.
 1903. *Gnathias bella* Robertson, *Can. Ent.*, XXXV, p. 172, ♂.
 1903. *Gnathias maculata* Robertson, *ibid.*, ♀.
 1903. *Nomada bella* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, p. 601, ♀ ♂.

1905. *Nomada (Gnathias) bella* Lovell and Cockerell, *Psyche*, XII, p. 39, ♀♂.

This species is apparently very uncommon in Nebraska, since it is known from the state only from a single male specimen collected at Bellevue in April, along with a female and eight males of *N. lepida* and a pair of *N. carolinae*. Before the writer are two females of *bella* from Ute creek, Costilla county, Colorado, collected June 27 and 28, 1907, by L. Bruner and H. S. Smith, respectively, both of which agree in having the abdomen immaculate except for large round pale yellow spots on the sides of tergite 2. A third female from Detroit, Minnesota, collected June 17, 1911, on "*Zizia* and *Sanicula*" (C. M. Waldron, Stevens No. 2373), is exceedingly dark red, almost blackish, and has small yellow spots on the sides of tergite 3 as well as on 2, but as it seems structurally similar to the Colorado females it is referred to *N. bella*, at least for the present.

***Nomada (Gnathias) lepida* Cresson.**

1863. *Nomada lepida* Cresson, *Proc. Ent. Soc. Phil.*, II, pp. 288-89, ♂.
 1893. *Nomada maculata* Robertson (not of Cresson), *Trans. Am. Ent. Soc.*, XX, p. 275, ♀♂ (in part; part = *N. ovata*).
 1903. *Gnathias cuneatus* Robertson, *Can. Ent.*, XXXV, pp. 175-76, ♀♂.
 1903. *Nomada lepida* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, pp. 595-97, ♂.
 1903. *Nomada cuneata* Cockerell, *ibid.*, pp. 595-96 and pp. 601-02, ♀♂.
 1903. *Nomada schwarzi* Cockerell, *ibid.*, p. 595 and p. 600, ♀ (not ♂).
 1905. *Nomada (Gnathias) lepida* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 71 and p. 75, ♀♂.
 1905. *Nomada (Gnathias) cuneata* Cockerell, *ibid.*, p. 71 and p. 75, ♀♂.
 1905. *Nomada (Gnathias) cuniata* Lovell and Cockerell, *Psyche*, XII, p. 40, ♀.
 1907. *Nomada lepida* Cockerell, *Univ. of Colorado Studies*, IV, p. 248, ♀♂.
 1911. *Nomada lepida cuneata* Cockerell, *Proc. U. S. Nat. Mus.*, XXXIX, p. 656, ♂♀.

In 1905 (*l. c.*) Cockerell pointed out the close relationship between *N. lepida* Cress. and *N. cuneata* Robertson, and because of the presence of both forms, together with apparently intergrading specimens, in the same locality in Colorado he stated

that he expected that it would become necessary to consider *cuneata* as a subspecies of *lepida*. The chief differentiating characters pointed out by him both then and previously (*l. c.*) were that in *cuneata* ♂ the tegulae were yellow and the mesoscutellum was usually spotted with yellow, while in *lepida* ♂ the tegulae were red and the mesoscutellum black or red or spotted with red. In the female the only difference indicated was that that sex of *cuneata* had the abdomen of a darker red than in *lepida*. Later (*l. c.*, 1911), he reaffirmed his conviction that the two forms are not specifically distinct, and that *cuneata* must stand as a variety of *lepida*, after a study of Oklahoma material which showed intergradation. A study of a series of forty-six males and thirty-one females from Nebraska, which theoretically would lie exactly in the inosculating territory of the two nominal forms, presents evidence on this question which is convincing to the writer. In this series of Nebraska males some specimens have the tegulae bright yellow exactly as in an Illinois male of *cuneata* received from Robertson, while in others the tegulae are deep red as described for *lepida*, and still others, constituting a large part of the series, have the tegulae a sort of yellowish red or reddish yellow in which every degree of transition between the two colors is represented. Taking the twenty-five males from Lincoln and dividing them into two series according to the color of the tegulae, we find fifteen have the tegulae nearest yellow and ten have them nearest red. Similarly, of four males from Falls City at the extreme southeastern corner of the state, three have the tegulae nearest yellow and one nearest red; of ten males from Bellevue, also on the eastern edge of the state, three have the tegulae nearest yellow and ten nearest red; of five males from Cedar Bluffs, in the prairie region, two have the tegulae nearest yellow and three nearest red; while two males from Indianola, west of the 100th meridian, both have the tegulae bright yellow. Obviously, the series divides nearly evenly on this character without any definite relation to geographical distribution. In the same way the spotting of the mesoscutellum varies. In the series just mentioned eight have this sclerite wholly black, four have it spotted with yellow and thirty-two have it spotted with yellowish

red or red, or entirely of a red color. The spots vary in size all the way from tiny dots to spots involving the whole of the sclerite together with a broad line on the metanotum, and this without relation to locality. In the series of thirty females, most of them have the red of the abdomen of the same shade as in an Illinois specimen of *cuneata* ♀ received from Robertson, but a few specimens, all from eastern Nebraska, have it a bit paler. Two females from Sioux county in extreme northwestern Nebraska are as dark as the darkest. A pair from Manhattan, Kansas, differ in no way from specimens in the Nebraska series. In view of all these facts the writer is forced to the conclusion that the alleged differences between *lepida* and *cuneata* are more individual variation than geographical variation, and that probably both forms will be found together in most if not all the localities in which the species occurs; consequently their continued separation, even as subspecies, is unwarranted and *cuneata* is here relegated to synonymy.

In 1903 Cockerell recorded this species, as *N. cuneata*, from Lincoln and Cedar Bluffs, Nebraska. The species occurs throughout the state, having been collected not only in the localities mentioned by Cockerell but at Roca, Ashland, South Bend, Bellevue, Falls City, Indianola and in Sioux county. It flies from April 13 to June 1, commonly at flowers of *Ribes gracile*, *Salix nigra*, *Prunus americana*, *Fragaria virginiana*, *Rubus occidentalis*, *Taraxacum taraxacum*, *Cornus stolonifera*, *Macrocalyx nyctelea*, etc., as well on several cultivated fruits and ornamentals, notably plum, apricot, gooseberry, strawberry, *Tamarix gallica*, cultivated *Spiraea*, etc. Robertson's color varieties of the female are represented in the Nebraska series as follows: *10-notata* by one specimen, *8-notata* by twelve specimens, *6-notata* by five specimens, *4-signata* by eight specimens, while still another form, which has spots on sides of tergite 2 only, is represented by five specimens.

Nomada (Gnathias) carolinae Cockerell.

1903. *Nomada carolinae* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, p. 595 and pp. 602-03, ♀.

1911. *Nomada carolinæ* Cockerell, *Proc. U. S. Nat. Mus.*, XXXIX, p. 656, ♀.

This species was originally described by Cockerell from two females from North Carolina, and he has since recorded it from Virginia and Texas. The specimens before the writer are the same as a female from Longview, Texas, determined as *N. carolinæ* by Cockerell now in the U. S. National Museum collection. In Nebraska this species is beyond doubt our commonest species of this subgenus, and is represented by a series of forty females and one hundred and thirty-nine males. The latter sex has never been described but it can easily be recognized by the characters given in the preceding key to the Nebraska species. The allotype is a specimen selected from a series of fifteen males collected with two females at Lincoln, April 13. The species flies from April 13 to May 17, but is the most abundant in latter April, thus corresponding exactly with the season of *N. lepida*. It has been collected in much the same localities as *N. lepida*—Lincoln, West Point, Cedar Bluffs, Bellevue, Falls City and Indianola—except that it has not been found in Sioux county, and visits practically the same flowers as *lepida*, having been taken on *Ribes gracile*, *Salix nigra*, *Prunus americana*, *Fragaria virginiana*, and cultivated plum and apricot. It is, however, perfectly distinct from *N. lepida* and is much less variable in its markings than that species. A variety from Dickinson, North Dakota, May 8, 1912, on *Salix* (C. H. Waldron: Stevens No. 3192) has the apical margins of tergite 1-4 broadly and strongly dusky, but does not otherwise differ from Nebraska material.

***Nomada* (*Gnathias*) *albofasciata* Smith.**

1879. *Nomada albofasciata* Smith, *New Species of Hymenoptera in the British Museum*, p. 100, ♂.

1903. *Nomada albofasciata* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, p. 602, ♂.

1905. *Nomada* (*Gnathias*) *albofasciata* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 75, ♂.

1905. *Nomada* (*Gnathias*) *albofasciata* Cockerell, *Trans. Am. Ent. Soc.*, XXXI, p. 312, ♂.

Cockerell has examined Smith's type of *albofasciata* in the

British Museum and has identified specimens of this species from Wisconsin, New York and Colorado. Four Nebraska males before the writer are the same as the specimens from Wisconsin and New York determined by him, which are now in the U. S. National Museum. Two of the Nebraska males were collected at Cedar Bluffs in company with six specimens of *lepida* and seventeen specimens of *carolinae*. Another male was taken at Bellevue, May 9, 1908, in company with two males of *lepida*, while the fourth male was collected at Lincoln, April 28, 1901, on plum blossoms in company with eight females and four males of *lepida* and one female of *carolinae*. It would not prove surprising if *albofasciata* eventually proved to be simply another extreme variation of the plastic *N. lepida*.

Nomada (Gnathias) siouxensis n. sp.

♀. Length 9 mm. Light red; a large oval spot above insertion of antennae, a similar spot involving ocelli, the cheeks except for a broad orbital line, most of propleura, an X-shaped area on mesosternum which extends up in the pro-mesopleural suture, whole of metapleura, posterior face of last four coxae, bases of all of the femora more or less, sutures about wing bases, and a median line on mesoscutum and propodeum, sharply contrasting black. Clypeus, lower sides of face, labrum and mandibles conspicuously suffused with yellowish. Antennae red except a black line on scape behind. Tegulae red. Wings moderately darkened about marginal and submarginal cells and on apical border but with a clear area between, the nervures fuscous, stigma dark brown, basal nervure much basad of transverso-medial nervure, third submarginal cell much narrowed above. Abdomen light red except for a small black area at extreme base, immaculate.

Type.—Warbonnet canyon, Sioux county, Nebraska, June 21, 1901, on "borage" (M. Cary), ♀.

This species is allied to *N. louisianae* Ckll., but differs in larger size, paler red coloration, shape of black mark on propodeum and lack of spots at base of abdomen. From *N. rhodalis* Ckll., it differs in the possession of a median line on mesoscutum, of a black area at extreme base of abdomen above but none on the ventral side, and the third submarginal cell much narrower above than the second. From *N. perpleva* Cresson, it differs in the light red head and thorax, the scape light red in front, the

abdomen paler, without dark bands on tergites 1-4 or sternite 1 or yellow spots on tergite 2, etc. The unspotted abdomen is diagnostic from the other species of this subgenus.

SPECIES FROM OUTSIDE NEBRASKA

Nomada (Gnathias) utensis n. sp.

♀. Length 5.5-7 mm. Head and thorax black, coarsely and very closely punctured, the anterior edge of the clypeus, malar space, mandibles, labrum, whole of antennae, spot at top of eye, tubercles, tegulae, meso-scutellum, and legs except for small black spots on both faces of middle femora and trochanters, anterior face of hind femora and most of all of the coxae, bright red. Sometimes there is a small more or less obvious reddish stain spot on the anterior part of the mesopleura. Antennae red, joint 3 a little shorter than 4. Wings hyaline, clouded apically and about marginal and submarginal cells, the nervures and stigma red except the blackish costal nervures, the basal nervure a little basad of transverso-medial nervure. Abdomen bright light red, tergite 1 with about the basal one-third black, the black area ending in an irregular line, the apical margins of tergites 1-4 stained with darker red than the rest of the tergum, sternite 1 with a large black V-shaped mark. Head and thorax with thin, rather long, pure white hair, especially evident on occiput, cheeks, pectus, and sides of propodeum, the apex of abdomen with a dense tuft of curved black bristles on each side ventrally.

♂. Length 6 mm. Head and thorax wholly black, coarsely and closely punctured. Mandibles yellowish red with the tip bright carmine and deeply toothed. Orbits converging below rather strongly. Supraclypeus and upper clypeus, together with adjacent areas on the sides of the face, densely covered with appressed silvery hair, the cheeks and occiput with very thin but long and erect pale hair. Scape black, punctured, sparsely fringed with long erect pale hair, flagellum dark red beneath, above with a black line covering most of the surface of the joints, joint 3 nearly three fourths as long as 4. Legs yellowish red, very strongly yellowish on anterior femora and first four tibiae, the coxae and trochanters, a broad line on anterior femora beneath, whole of middle femora except a broad stripe on anterior faces above and the tips, whole of posterior femora except the tips, and elongate spots on the first four tibiae behind, black. Outer face of posterior tibiae tuberculate, posterior basitarsi with golden hair within. Tegulae black, edged with testaceous. Wings clear, scarcely darkened apically, nervures and stigma red, basal nervure a little basad of transverso-medial nervure, the second submarginal cell narrow and receiving the first recurrent nervure at its middle. Abdomen red, tergite 1 with the basal half black and a black oval spot on each side of the reddish submedian band, the apical margins of tergites 1-4 broadly

reddish to testaceous, tergites 2-6 with pale yellowish bands, mostly broad and all complete but slightly incised medially with red on anterior margin of 2-4, deeply emarginate on posterior margin laterally on 4-6. Venter red, a large triangular black mark on sternite 1. Apex narrow, subentire or at most exceedingly vaguely notched.

Type.—Ute creek, Costilla county, Colorado, June 27, 1907 (R. W. Dawson), ♀.

Allotype.—Type locality, June 22, 1907 (R. W. Dawson), ♂.

Paratypes.—Type locality, June 24, 1907 (L. Bruner), 3 ♀; do. (H. S. Smith), 2 ♀; do., June 27 (L. Bruner), 3 ♀; do. (R. W. Dawson), 2 ♀; do., July 3 (L. Bruner), 4 ♀; Russell, Costilla county, June 25, 1907 (L. Bruner), 1 ♀.

The male of *utensis* agrees very closely with the description of *N. custeriana* Ckll., but the third antennal joint is fully two-thirds as long as the fourth ("much shorter" than the fourth in *custermana*), the apical plate is subentire (distinctly notched in *custermana*), the second submarginal cell is narrow (broad in *custermana*), the bands on abdominal tergites 2-4 are complete (interrupted by red medially in *custermana*), the malar space is black (red in *custermana*), etc. They are very close, however, and were at first thought to be conspecific. The female agrees with *N. siouxensis*, *N. rhodalis* and *N. louisianae* in the lack of yellow spots on the abdomen, but the black head and thorax distinguish it at once from all of these species, which have the thorax mostly red; it is also a smaller species than these, and has more black at the base of the abdomen. From *N. perplexa* it differs in the black head and thorax, the bright red antennae, the different shape of the black abdominal marks, etc. The male differs from all the other species, except *custermana*, in the wholly black head and thorax.

Nomada (Gnathias) rhodomelas Cockerell.

1903. *Nomada rhodomelas* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, p. 595 and p. 598, ♂ (♀?).

A male from Vancouver, British Columbia, May 23, 1902 (R. V. Harvey, No. 425), seems referable here, at least provisionally, but differs from the description of the unique type of *rhodomelas* in larger size (10 mm. long), in having the clypeus almost wholly

pale (only the anterior margin laterally pale in the type of *rhodomelas*), the mesoscutellum red and the scape with a broad red line in front (both wholly black in the type of *rhodomelas*), and the apex deeply notched. The venation, however, is that of *rhodomelas*, the second submarginal cell being very narrow with the first recurrent nervure received much beyond its middle. The red mesoscutellum and scape in front suggest *N. perbella* Viereck ♂, but the venation and the pale red ground color of the abdomen would indicate that it is not that species.

Nomada (Gnathias) perplexans Cockerell.

1910. *Nomada (Gnathias) perplexans* Cockerell, *Psyche*, XVII, pp. 94-95, ♂.

Two males from Washington State, one from Pullman, May 27, 1897, and the other from Wawawai (C. V. Piper), seem referable here. They do not agree exactly with the description of the type, collected at Pullman, having the mesoscutellum red, round yellow dots on sides of abdominal tergite 1 and yellow spots on sides of tergites 3 and 4 (and in one specimen on sides of 5 also), the pair of spots on 6 distinct and yellow, the clypeus wholly yellow or nearly so, the first recurrent nervure joining the broad second submarginal cell at its middle and the hair of the thorax above not tinged with yellowish. The specimens are 9 and 8.5 mm. long, respectively. The venation of this form is like that of *N. perbella*, but the pale red abdomen, largely pale clypeus, red mesoscutellum, etc., are very like that in the Vancouver specimen referred above to *rhodomelas*, and may be the same. The fact is, the northwestern species of this subgenus are very poorly understood, and there will probably be a very different alignment of the species as more material accumulates and is studied.

Subgenus **Melanomada** Cockerell, 1903

KEY TO THE NEBRASKA SPECIES

Females

- Larger, 6.5-7 mm. long *grindeliae*
- Smaller, 4.5-5.5 mm. long *heleniella*

Males

Larger, 5.5-6.5 mm. long *grindeliae*
 Smaller, 4.5 mm. long *heleniella*

Nomada (Melanomada) grindeliae Cockerell.

1903. *Nomada grindeliae* Cockerell, *Ann. Mag. Nat. Hist.*, ser. 7, XII,
 p. 210, ♂.

1903. *Nomada (Melanomada) grindeliae* Cockerell, *Proc. Acad. Nat.
 Sci. Phil.*, p. 587, ♂.

1903. *Nomada grindeliae* Crawford, *Can. Ent.*, XXXV, p. 334, ♀ ♂.

1905. *Nomada grindeliae* Cockerell, *Bull.* 94, Colorado Exp. Sta., p.
 70, ♀ ♂.

The type of this species is a male collected at Lincoln, Nebraska, on flowers of *Grindelia squarrosa*, September 2, 1901, by J. C. Crawford. Mr. Crawford when describing the female (*l. c.*) recorded the species as "common at Lincoln in August; taken on *Solidago missouriensis*, *Grindelia squarrosa*, *Euphorbia* and *Lactuca*." It has not been collected elsewhere than at Lincoln, and all of the specimens so far taken were captured in the immediate vicinity of the salt flats just west of the city. There it flies commonly in some seasons from August 27 to September 7, visiting principally the flowers of *Grindelia squarrosa* and *Solidago serotina*.

Nomada (Melanomada) heleniella Cockerell.

1911. *Nomada (Melanomada) heleniella* Cockerell, *Proc. U. S. Nat.
 Mus.*, XXXIX, pp. 648-49, ♀ ♂.

This species was recently described from Victoria, Texas, where four males and three females were collected at *Helenium tenuifolium*, September 26, 1904, by J. C. Crawford. A female specimen from Lincoln, Nebraska, collected in August, is only 4.5 mm. long, much smaller than any one of the series of eleven females of *grindeliae* from the same locality before the writer, which are all between 6.5 and 7 mm. long, and as it thus agrees in size with *heleniella* and does not obviously differ from the type of that species in the U. S. National Museum, it is referred to that species rather than considered a dwarfed individual of *grindeliae*. The two nominal species are identical, however, except in size.

Subgenus **Nomadula** Cockerell, 1903

KEY TO THE NEBRASKA SPECIES

Females

- Mesoscutum and propodeum paler red without a median dark band; flagellum and legs wholly red; 7-8 mm.*scita*
 Mesoscutum and propodeum darker red with a median black band; flagellum dusky above beyond third antennal joint; hind femora blackish behind; 7-10 mm.*articulata* and *a. dacotana*

Males

Hind femora red, only slightly suffused with blackish behind if at all; base of abdomen black, the yellow bands well formed on tergites 1 and 2, narrowly interrupted or complete; collar, tubercles and tegulae yellow, mesoscutellum black or with yellow spots; joint 3 of antennae very oblique at apex; 7-8 mm.

scita

Hind femora black behind; base of abdomen largely red, the yellow bands usually broadly interrupted, that on 1 frequently reduced to lateral spots or obsolete; collar black, tubercles, tegulae and mesoscutellum red; joint 3 of antennae less oblique at apex ... I

- I. Mesoscutum black without any red, the abdomen less extensively red; 7-7.5 mm.*articulata*
 I. Mesoscutum largely or partly red with a broad median black band, the abdomen more extensively red; 7-9.5 mm.

articulata dacotana

Nomada (Nomadula) articulata Smith.

1837. *Nomada bisignata* var. Say, *Boston Journal Nat. Hist.*, I, p. 403, ♂.
 1854. *Nomada articulata* Smith, *Cat. Hymenopterous Ins. British Mus.*, II, p. 248, ♂.
 1854. *Nomada annulata* Smith, *ibid.*, pp. 248-49, ♂ (not ♀).
 1863. *Nomada articulata* Cresson, *Proc. Ent. Soc. Phil.*, II, pp. 297-99, ♂.
 1863. *Nomada incerta* Cresson, *ibid.*, pp. 309-10, ♀.
 1903. *Centrias americana* Robertson, *Can. Ent.*, XXXV, p. 176, ♀ ♂ (not *N. americana* Kirby).
 1903. *Nomada americana* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, p. 590 (not *N. americana* Kirby).
 1905. *Nomada (Nomadula) articulata* Cockerell, *Trans. Am. Ent. Soc.*, XXXI, p. 312, ♂.

The typical form of *Nomada articulata* occurs only in eastern

Nebraska, principally along the Missouri bluffs, being replaced by the following form from about the 97th meridian westward. It has been collected at Weeping Water, South Bend, Ashland and Lincoln, from May 18 to July 20; fairly commonly at flowers of *Erigeron philadelphicus* and *Zizia aurea*, in May.

Nomada (Nomadula) articulata dacotana (Cockerell).

1903. *Nomada americana dacotana* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, p. 592, ♂.

As noted above, in eastern Nebraska part at least of the males of *articulata* (= *americana* auctt.) are typical, having the meso-scutum wholly black, but from about the 97th meridian westward we get a rapidly increasing suffusion of reddish on the meso-scutum and an increase in the extent of the red on the abdomen, which in its extreme phase has these parts almost entirely red. Before the writer is a series of thirty specimens of *dacotana*, from Lincoln, South Bend, West Point, Neligh, Springview, Halsey, Crawford, Harrison and the Pine Ridge, collected May 18 to July 9, which show that this color variation is correlated with geographical distribution, as the reddest specimens come from western Nebraska and the eastern Nebraska specimens intergrade with typical *articulata*. The variation is quite parallel with that observed in *Nomada* (*Micronomada*) *modesta* and its race *vegana*. *N. a. dacotana* is common at flowers of *Erigeron philadelphicus*, *Fragaria virginiana*, *Apocynum cannabinum*, *Asclepias syriaca*, *Symphoricarpos occidentalis*, *Convolvulus arvensis* and *Melilotus alba* eastwardly, and in the Pine Ridge on *Senecio atriapiculatus* and *Sedum stenopetalum*.

Nomada (Nomadula) scita Cresson.

1878. *Nomada scita* Cresson, *Trans. Am. Ent. Soc.*, VII, p. 77, ♂.

1903. *Nomada martinella* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, pp. 590-91, ♀.

1903. *Nomada* (*Nomadula*) *martinella* Cockerell, *Bull.* 94, Colorado Exp. Sta., p. 76, ♀ ♂.

1911. *Nomada scita* Cockerell, *Proc. U. S. Nat. Mus.*, XXXIX, p. 648.

This species is confined in this state to the northwestern corner, where it is rather common from May 26 to July 12, at flowers of

Malvastrum coccineum, *Cornus stolonifera* and *Senecio atriapiculatus*, and, toward the end of the season, on *Helianthus*. In a series of eight females and three males from Sioux and Dawes counties, Nebraska (Warbonnet, Jim creek and Indian creek canyons and Crawford), the females agree with *N. martinella* Ckll., to which species Cockerell has already referred a Sioux county specimen (*l. c.*, 1903, p. 590), and the males agree with *N. scita* Cresson. It seems from a study of the evidence that there is no reasonable doubt but that *martinella* is the female of *scita*, a conclusion which Cockerell practically reached recently (*l. c.*, 1911, p. 648), since the supposed characters of *martinella* ♂—broader abdomen and darker legs—are scarcely tangible enough to indicate good species but much more probably represent individual variations. A new locality record of this species is a male from Dickinson, North Dakota, May 25, 1912, on *Nothocalais cuspidata* (C. H. Waldron: Stevens No. 3307).

Subgenus **Centrias** Robertson, 1903

KEY TO THE NEBRASKA SPECIES

Female

Black, the face, mandibles except tips, orbital margins sometimes meeting above and extending over vertex, antennal joints 1-3, tubercles, tegulae and line above, two lines of variable length on mesoscutum, mesoscutellum, irregular patch on mesopleura, legs except posterior femora and tibiae behind, and more or less of venter, red; malar space, collar, axillae, metanotum and abdominal bands on tergum, yellow, the latter broadly interrupted on tergites 1-3 but continuous on 4 and 5; wings fuliginous, nervures blackish, stigma red; fringes of hair about the tubercles, on collar and sides of propodeum, otherwise practically nude; 10-11 mm.*erigeronis*.

Male

Black, the face, anterior orbital margin, labrum, mandibles, scape in front, collar, tubercles, tegulae, patch on mesopleura, axillae, middle of lobes of mesoscutellum, metanotum, much of coxae and trochanters and apices of the femora and tibiae, and bands on the abdominal tergites, yellow; legs, margins of lobes of meso-

scutellum, and flagellum beneath apically, red; abdominal bands interrupted on 1 but continuous on 2-6; 11 mm.*erigeronis*.

Nomada (Centrias) erigeronis Robertson.

1897. *Nomada erigeronis* Robertson, *Trans. Acad. Sci. St. Louis*, VII, pp. 341-42, ♀.

1903. *Centrias erigeronis* Robertson, *Can. Ent.*, XXXV, pp. 176-77, ♀♂.

1903. *Nomada erigeronis* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, p. 588, ♀.

Cockerell (*l. c.*) gives descriptive notes on a female from Nebraska in the collection of the Philadelphia Academy, no further data regarding this specimen being known. A series of five females and one male of this little known bee was collected by L. Bruner and the writer in the Pine Ridge of Dawes county northeast of Crawford, Nebraska, July 7, 1910, at flowers of *Brauneria pallida*. A female collected on the same flower at Blue Rapids, Kansas, July 3, 1907, by O. A. Stevens (No. 1447) is before the writer; also a single male collected in Warbonnet canyon, Sioux county, Nebraska, June 29, 1901, on *Campanula rotundifolia*, by J. C. Crawford, and a third Nebraska male collected at Weeping Water, July 20, 1906, by H. S. Smith.

Subgenus **Micronomada** Cockerell, 1902

KEY TO THE NEBRASKA SPECIES

Females

- Mesoscutum with the punctures very dense, more or less subcancellate. . . . 1
 Mesoscutum with the punctures well separated, not subcancellate 5
 1. Propodeum with yellow spots 2
 1. Propodeum without yellow spots 3
 2. Clypeus wholly black; 7.5-9 mm. *modesta*
 2. Clypeus wholly or largely red; 7-9 mm. *modesta vegana*
 3. Yellow band on tergite 2 broad laterally but gradually much narrowed medially; abdominal sternites 3 and 4 with narrowly interrupted pale yellow lines; 9 mm. *texana*
 3. Yellow band on tergite 2 subuniformly broad, merely sharply notched medially on anterior margin; abdominal sternites all black. . . . 4
 4. Punctures of mesoscutum very coarse and close, mostly subcancellate and causing a rugose surface; flagellum dusky above; supra-clypeal area black; lateral face marks narrowly linear, yellow

- marginated by reddish; a large cuneiform yellow pleural mark sometimes narrowly divided into two spots; 10 mm. *arenicola*
4. Punctures of mesoscutum strong and close but less coarse and scarcely at all subcancellate, the surface between shining; flagellum wholly red; supraclypeal area with a yellow spot; lateral face marks broadly trapezoidal, wholly yellow; a small round yellow pleural mark; 7 mm. *amorphae*
5. Apical margins of tergites 2-4 scarcely reflexed; flagellum red, scarcely darker above; spot on pleura large, cuneiform; second submarginal cell much narrowed above; ornaments more cream color; 7.5-8 mm. *vierecki convolvuli*
5. Apical margins of tergites 2-4 broadly polished and distinctly reflexed; flagellum red, becoming blackish above; spot on pleura small, rounded; second submarginal cell subquadrate; ornaments more yellow; 9 mm. *putnami*
- (The female of *crassula* is unknown or unrecognized.)

Males

- Mesoscutum with the punctures very dense, more or less subcancellate . . 1
- Mesoscutum with the punctures well separated, not subcancellate 5
1. Propodeum with yellow spots *modesta* and *modesta vegana*
1. Propodeum without yellow spots 2
2. Yellow band on tergite 2 broad laterally but gradually much narrowed medially; abdominal sternites 3 and 4 with narrowly interrupted pale yellow lines; 8-9 mm. *texana*
2. Yellow band on tergite 2 subuniformly broad, merely sharply notched medially on anterior margin; abdominal sternites all black . . . 3
3. No supraclypeal mark; clypeal sutures broadly black; mesoscutum coarsely, cancellately punctured; 8.5-9 mm. *crassula*
3. A distinct supraclypeal mark; clypeal sutures narrowly black . . . 4
4. Punctures of mesoscutum very coarse and close, mostly subcancellate and causing a rugose surface; flagellum dusky above; lateral face marks barely attaining vertex; axillae usually reddish, the lobes of the mesoscutellum separated by a reddish or black line; wings darker; 11 mm. *arenicola*
4. Punctures of mesoscutum strong and close but less coarse and scarcely at all subcancellate; flagellum clear red; lateral face marks more produced along orbital margin, connecting with postorbital spot; axillae and mesoscutellum yellow; 7 mm. . . *amorphae*
5. Spot on pleura large, cuneiform; anterior tibiae wholly red; abdominal sternites 3 and 4 with yellow lines; 6.5-7 mm. *vierecki convolvuli*
5. Spot on pleura small; front of anterior tibiae yellow; venter wholly blackish brown; 9 mm. *putnami*

Nomada (Micronomada) modesta Cresson.

1863. *Nomada modesta* Cresson, *Proc. Ent. Soc. Phil.*, 11, pp. 286-87,
 ♀♂
 1903. *Micronomada modesta* Robertson, *Can. Ent.*, XXXV, p. 173.
 1903. *Nomada modesta* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, p. 610.

Specimens referable to typical *N. modesta* are to be found in the eastern part of the state, and rarely in western Nebraska also, but are not nearly so common as is the subspecies *vegana* westwardly. It has been collected at Weeping Water, Lincoln, Neligh, Halsey and Mitchell, July 11 to 29, on flowers of *Kuhmistera purpurea*, *Medicago sativa* and *Asclepias syriaca*. A pair before the writer received from O. A. Stevens (Nos. 3629, 3630) was collected at Valley City, North Dakota, August 13, 1912, on *Chrysopsis*.

Nomada (Micronomada) modesta vegana Cockerell.

1902. *Micronomada modesta* Cockerell, *Ann. Mag. Nat. Hist.*, VII,
 pp. 42-44.
 1903. *Nomada modesta* var. *vegana* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, p. 610.
 1905. *Nomada (Micronomada) vegana* Cockerell, *Bull.* 94, Colorado
 Exp. Sta., p. 76.
 1911. *Nomada (Micronomada) vegana* Cockerell, *Proc. U. S. Nat. Mus.*, XLI, p. 237.

Cockerell described *vegana* as a variety of *N. modesta* differing in smaller size and in having a red clypeus, but shortly thereafter (*i. e.*, 1905) stated that it seemed to be a distinct though closely allied species, and has since so cited it. With a series of sixty-two specimens of Nebraska *modesta* before the writer he cannot agree with the latter conclusion. In eastern to central Nebraska, and rarely in the western part of the state as above noted, we get typical *modesta* with the clypeus black, but from central Nebraska westward the clypeus of the female becomes more or less stained with red, at least on its lower margin, until in Sioux county many of the specimens have the clypeus bright red, rarely stained with black at all. In the series of females before the writer are represented all intermediate conditions between a wholly black and a wholly red clypeus, and those with the red clypeus are identical with specimens in

the U. S. National Museum determined as *vegana* by Cockerell. This would seem to destroy all claim to *vegana* being a distinct species but the name can still be used, as originally applied, to designate a western geographical race. In a series of three females and five males from Ute creek, Costilla county, Colorado, collected July 5 and 13, 1907, by L. Bruner and H. S. Smith, *vegana* ♀ reaches a maximum suffusion of reddish, having not only the clypeus but the pectus and pleura red (this occurring also in some Sioux county, Nebraska, specimens), and in one female the mesoscutum red with the black anterior and posterior margins connected with a narrow stripe; the five males, even in this series, are not distinguishable with certainty from ordinary *modesta*, but, as Cockerell has pointed out, average rather smaller. In Nebraska specimens referable to *vegana* have been collected in Warbonnet and Monroe canyons and at Glen, in Sioux county, at Haigler in Dundy county, at Halsey in Thomas county, and at Carns in Keyapaha county, June 23 to August 22, commonly at flowers of *Helianthus petiolaris*, *Helianthus annuus*, *Ratibida columnaris*, *Kuhnistera candida*, *Kuhnistera purpurea*, *Amorpha canescens*, *Symphoricarpos occidentalis*, *Verbena stricta* and *Mentha canadensis*. Two females and a male from Valley City, North Dakota, August 13, 1912, on *Chrysopsis* (O. A. Stevens, Nos. 3631, 3632, 3633) are also before the writer; these were taken along with a pair of *N. modesta*.

Nomada (Micronomada) texana Cresson.

1872. *Nomada texana* Cresson, *Trans. Am. Ent. Soc.*, IV, p. 271, ♀ ♂.

1903. *Cephen texanus* Robertson, *Can. Ent.*, XXXV, p. 173, ♀ ♂.

1911. *Nomada texana* Cockerell, *Proc. U. S. Nat. Mus.*, XXXIX, pp. 652-53.

This species is found in eastern Nebraska but is uncommon. M. A. Carriker collected three specimens at Nebraska City, September 12 to 14, 1901, on *Solidago rigida*, which are the same as specimens of *texana* in the U. S. National Museum.

Nomada (Micronomada) arenicola n. sp.

♀. Length 10 mm. Agreeing with *N. texana* Cresson, but larger, distinctly more coarsely punctured, the venter entirely shining black with no

red stain or pale marks on sternites 3 and 4, the band on tergite 2 subuniformly broad, merely sharply notched medially on anterior margin.

♂. Length 11 mm. Agreeing with *N. texana* ♂ but larger, much more coarsely punctured, the venter entirely shining black, the scape red without a yellow cast in front, the band on tergite 2 much less narrowed medially, as in the female.

Type.—Neligh, Nebraska, July (M. Cary), ♀.

Allotype.—Halsey, Nebraska, July 11, 1909, on *Amorpha canescens* (M. H. Swenk), ♂.

Paratypes.—Halsey, Nebraska, July 11, 1909, on *Amorpha canescens* (M. H. Swenk), 6 ♂; do., on *Asclepias syriaca*, 1 ♂; do., on *Verbena stricta*, 1 ♂; do., July 20, 1912 (J. T. Zimmer), 1 ♀; do., August 9, 1 ♀; do., August 23, 1 ♂; Carns, Nebraska, July 3, 1902, on *Verbena stricta* (W. D. Pierce), 1 ♂; do., July 27, 1902 (M. H. Swenk), 1 ♂.

While this species is a close ally of *texana* it shows no intergradation with that species, although typical *texana* occurs in eastern Nebraska only about 150 miles from the easternmost record of *arenicola*. Apparently *arenicola* is a species characteristic of the sandhill region of the state. One Carns male varies from the others in having the propleura, a small area below tubercles and the lower part of the propodeum red instead of black as in the other males.

Nomada (Micronomada) crassula Cockerell.

1903. *Nomada crassula* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, pp. 610-11, ♂.

The only Nebraska specimen of this species is a male captured at Halsey, July 11, 1909, on *Amorpha canescens*, by the writer, which agrees with the type in the U. S. National Museum except that it is distinctly smaller.

Nomada (Micronomada) amorphae n. sp.

♀. Length 7 mm. Black with large trapezoidal lateral face marks extending nearly to vertex, spot on supraclipeal area, posterior orbital lines, spot on base of mandibles, collar, tubercles except for a cuneate mark on anterior edge, round spot on mesopleura, tegulae, axillae, mesoscutellum, metanotum and abdominal bands, bright lemon yellow. Most of clypeus, the labrum, and the mandibles except tips and the basal spot, reddish. Antennae wholly red, joint 3 much exceeding 4. Mesoscutum

shining, with coarse and close but mostly quite separate punctures, sub-cancellate only at places. Legs entirely red, not varied with yellow or dusky. Wings fuliginous, darker apically, a clear spot beyond third sub-marginal cell, nervures black, stigma pale red. Abdomen shining black above, closely but not strongly punctured, tergites 1-5 with uninterrupted yellow bands, narrow on 1, broad and sharply notched in middle of anterior margin on 2, much narrowed medially on 3 and 4, covering most of tergite 5. Venter black, the first three sternites stained with red on apical margins but no pale lines on any of them.

♂. Length 7 mm. Very similar to the ♀, but whole of face nearly up to level of antennae medially and nearly up to vertex laterally, bright yellow, including the labrum and mandibles except tips; line on posterior orbits reduced to an oval spot behind summit of eye and narrowly connected over eye with lateral face marks; spot on mesopleura longer and larger; band on tergite 5 narrower, 6 with lateral spots, tergites 2-5 with broad shining smooth dark margins apically; venter wholly black; apex bifid.

Type.—Halsey, Nebraska, July 11, 1909, on *Amorpha canescens* (M. H. Swenk), ♀.

Allotype.—Type lot, ♂.

This species resembles *N. arenicola*, just described, but differs in much smaller size, smaller and sparser punctures on mesoscutum, red flagellum, supraclypeal spot, and other minor characters. From *N. crassula* Ckll., the male differs at once in the exceedingly less coarse and close puncturation of the mesoscutum and the presence of a supraclypeal spot. From *N. texana* Cresson and its race *N. t. crucis* Ckll., it may be distinguished by the broader band on the second abdominal tergite, the lack of ventral vittae and the less densely punctured mesoscutum. The closer mesoscutal puncturation and yellow maculations separate it at once from *N. vierecki* Ckll. and *N. v. convolvuli* and their allies. It resembles *N. neomexicana* Ckll. in some respects but differs in smaller size, finer and more separated mesoscutal punctures, lack of ventral lines, darker wings, wholly yellow labrum, broader band on tergite 2, and the deeply notched apex of the male. From *N. tiftonensis* Ckll., the contiguous lateral face marks and orbits and the wholly red hind femora are diagnostic.

***Nomada* (*Micronomada*) *vierecki convolvuli* n. subsp.**

♀. Length 7.5-8 mm. Black, with two large suboval lateral face marks,

spots on base of mandibles, broad lines on posterior orbits, collar, tubercles, large subcuneate spots on mesopleura, tegulae, lobes of mesoscutellum united above, metanotum, spots on middle and posterior coxae, and abdominal maculations, cream color or very pale yellow. Lower corners of face, including lower edge of lateral face marks and whole of labrum, more or less stained with red. Clypeus shining, sparsely and weakly punctured, face and vertex strongly and closely punctured, mesoscutum shining and with coarse but quite separate punctures becoming sparse on the disk. Antennae bright red, the flagellum obscurely dusky above toward tip, joint 3 much exceeding 4. Legs red except for the yellow coxal spots and more or less blackish on posterior femora behind and on a subapical band on posterior tibiae which becomes broader behind. Wings subhyaline, darkened at tips and about marginal cells, nervures blackish, stigma red, basal nervure interstitial with transverso-medial nervure. Long and pale, very thin hair on cheeks, occiput, pleura, legs and sides of venter of abdomen toward tip, the sides of the propodeum with appressed sericeous hair. Abdomen blackish, more or less stained with reddish on basal tergites, tergites 1-5 with continuous bands, broad and slightly constricted medially on anterior margin on 1, broad laterally but much constricted medially on 2 and 3, notched medially on posterior margin on 4 and 5, apical margins of 2-4 usually markedly testaceous. Venter black, more or less extensively replaced by red, especially basally, sternites 3 and 4 with narrowly interrupted pale yellow lines, broader laterally.

♂. Length 6.5-7 mm. Similar to the ♀ but clypeus, supraclypeal mark and broad lateral face marks, together covering all of the face nearly up to level of antennae, clear pale yellow, the labrum and mandibles except tips concolorous with face, the scape in front also shaded with yellow. Apex distinctly notched.

Type.—Lincoln, Nebraska, June 17, 1901, on *Convolvulus arvensis* (J. C. Crawford), ♀.

Allotype.—Type lot, ♂.

Paratypes.—Type lot, 3 ♀, 1 ♂.

This handsome little bee is written as a subspecies of *N. vierecki* Ckll., from which it differs chiefly in having the propleura, mesopleura and sides of the propodeum black or blackish instead of red. There seems to be no structural differences between *convolvuli* and the type of *vrierecki* in the U. S. National Museum, and the specimen from Ladonia, Texas, collected on *Rudbeckia*, May 25, 1904, by F. C. Bishopp, which Cockerell has referred to *vrierecki* (see *Proc. U. S. Nat. Mus.*, XXXIX, p. 651),

has the propodeum black and is referable to *convolvuli*. Typical *zierecki* is known only from New Mexico and Chihuahua. Although in the small series available there is no intergradation shown, this case is with little doubt a parallel one with *modesta* and *vegana*, *articulata* and *dacotana*, etc. From *N. heiligbrodtii* Cresson, *convolvuli* differs in slightly smaller size, more separated punctures of the mesoscutum, and wholly red antennae in the female, while the male, if the described male really belongs with the female, may be separated by the complete abdominal bands on tergites 1-4, larger pleural spot and bivittate venter. From the other small species of the subgenus *Micronomada* the cream colored ornaments, at least on the abdomen, the unspotted propodeum and banded venter are diagnostic.

Nomada (Micronomada) putnami Cresson.

1876. *Nomada Putnami* Cresson, *Proc. Davenport Acad. Nat. Sci.*, I, pp. 210-11, ♀♂.

1903. *Nomada putnami* Cockerell, *Proc. Acad. Nat. Sci. Phil.*, p. 609.

1911. *Nomada putnami* Cockerell, *Proc. U. S. Nat. Mus.*, XXXIX, p. 651.

A female collected in Dewey Lake Township, Cherry county, June 18, 1902, by R. H. Wolcott is the only known record for the state. Though the specimen is reddened by cyanide the maculations appear to be considerably paler than is indicated in Cresson's description, but otherwise the specimen agrees.

SPECIES FROM OUTSIDE NEBRASKA

Nomada (Micronomada) aureopilosa n. sp.

♀. Length 9 mm. Stoutly built, black. Lower half of clypeus, lateral face marks extending considerably inward along clypeal suture but otherwise narrowly confined to orbital margin, line along posterior orbits, malar space, labrum, mandibles, antennae, collar, tubercles, tegulae, axillae, mesoscutellum, metanotum and legs, except for the black posterior side of the coxae, posterior femora and a triangular spot on posterior tibiae, red. Red stains forming a supratergular line, irregular patch on mesopleura and pectus between middle legs reddish. Mesoscutum closely, rather coarsely but not very strongly punctured. Head and thorax, especially mesopleura, rather copiously provided with short, bright golden hair, especially evident on labrum, cheeks, occiput, antennal bases, mesoscutellum, metanotum and sides of propodeum. Wings clouded, apically

infuscated, clearer about third submarginal cell, nervures fuscous, stigma pale testaceous. Coxal spines large and red. Basal tergite of abdomen red except for a small triangular patch at extreme base; tergite 2 black at base, medially with a broad pale yellow band which is deeply excavated on the anterior margin medially and the excavated area is red like tergite 1, the apical margin narrowly black; tergites 3-5 black with continuous broad pale yellow bands, median on 3 and 4, apical and involving all of the tergite except a basal line on 5. Venter red, stained with round black spots on the middle of apical margins of sternites 1-4.

Type.—Ute creek, Costilla county, Colorado, on sage flats, July 13, 1907 (R. W. Dawson), ♀.

A very distinct species. In Cockerell's table of Rocky Mountain *Nomada* it runs to 28 and then out because of the mainly black mesothorax and red face marks. In his table in *Proc. Acad. Nat. Sci. Phil.*, pp. 608-09, it runs to *snovii*, but is not closely related to that species, which is a *Holonomada*.

Genus *Viereckella* Swenk, 1907

KEY TO THE NEBRASKA SPECIES

Female

Entirely shining black, the propodeum and basal abdominal tergite highly polished; body nearly bare but with short sparse pale hair on the mesopleura, mesoscutellum, and metanotum, and loose thin lateral hair bands on apical margins of tergites 1-5; inner side of hind tibiae with blackish hair; wings heavily darkened, nervures and stigma black, the second submarginal cell as long as the first or third; joint 3 of antennae less than two-thirds as long as 4; pygidium moderately long, conical; 10 mm.

obscura

Viereckella obscura Swenk.

1907. *Viereckella obscura* Swenk, *Ent. News*, XVIII, pp. 298-300, ♀.

In 1907 the writer described the genus *Viereckella* from a unique female specimen collected at Meadow, Sarpy county, Nebraska, July 14, 1905, by P. R. Jones, and this specimen is still the entire basis of the type species of the genus, *V. obscura*. In 1878 Cresson described *Nomada pilosula* from a unique male specimen from New York, in the *Trans. Am. Ent. Soc.*, VII, p. 77, and in 1900 Graenicher recognized this species in material collected in Wisconsin, according to records in the *Bulletin of the Wisconsin Nat. Hist. Soc.*, VII, pp. 45, 46 and 64. In 1911,

Cockerell referred *N. pilosula* to the genus *Viereckella*, after having examined specimens of both sexes from Milwaukee, Wisconsin, sent him by Graenicher (see *Proc. U. S. Nat. Mus.*, XXXIX, p. 649), and also pointed out some of the more important characters of *Viereckella* males. Later, he reiterated this reference of the species, and recorded it from Plummers Island, Maryland, July 5, 1909, where specimens were collected by J. C. Crawford (*ibid.*, XLI, p. 232). The writer has seen these specimens in the U. S. National Museum, and they are the same as Graenicher's species. Through the courtesy of Dr. Graenicher the writer has been able to make direct comparisons of the type of *obscura* with two females of *V. pilosula* from Solon Springs and Maiden Rock, Wisconsin, and after much study believes them to be distinct though exceedingly close. *V. obscura* is distinctly larger, has somewhat darker wings with the second submarginal cell distinctly longer (in *pilosula* this cell is distinctly shorter than the first or third), the third antennal joint a shade shorter (in *pilosula* this joint is about two-thirds as long as the fourth), the hind tibiae within with dark hairs (not obvious in *pilosula*), and the pygidium less elongate (elongate acuminate in *pilosula*). It is doubtful if *V. ceanothina* Ckll. is distinct from *V. pilosula*. It might be added that Graenicher's determination of *V. pilosula* is undoubtedly correct, as Viereck compared a specimen from Milwaukee with Cresson's New York type. In Wisconsin Graenicher has captured both sexes of *V. pilosula*, at the places already mentioned and in other localities in that state, and finds the bee is not rare during July and early August at flowers of *Rudbeckia hirta*, *Aster macrophyllus* and *Aster furcatus*. (See *Bull. Milwaukee Public Mus.*, I, p. 241.) *V. ceanothina* was collected at flowers of *Ceanothus*. At the time the writer described this genus he referred it to the family *Melectidae* because of its five-jointed maxillary palpi, bluntly rounded marginal cell with its apex away from the costa, lack of tegumentary ornaments, etc., but though resembling the melectids in many ways the genus seems certainly to be Nomadine in its affinities. It closely resembles the recently described genus *Nomadosoma* Rohwer, in many respects.



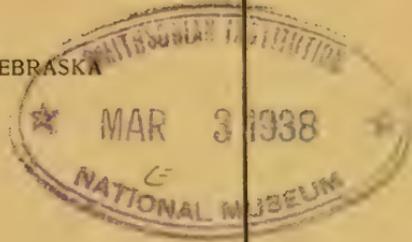
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FINANCIAL LEGISLATION AND ITS LIMITATIONS

BY W. G. LANGWORTHY TAYLOR

I

NOTES AND DEPOSITS

§ 1. It may be assumed that the employment of credit had been developed in society by the usage of business men, that an evolution in methods had taken place, reaching back into immemorial time, which was intimately bound up with the increase in wealth, in productive processes, in means of transportation and communication, and in the markets.

However, rulers have sought to regulate and monopolize not only the money of communities but also their credit. It is a noteworthy further proof of the absorbing position of credit in the financial world, especially as compared with money, that, notwithstanding the efforts of governments to control the credit system or to monopolize it for the selfish purpose of potentates or of parties, they have been able to break down, destroy, or assimilate and appropriate but a small part of the fiduciary activity. In Oriental countries, it is true, enterprise is throttled by taxation, which is the surest means to that end; but in a nation where the employment and recording of documentary promises are well developed, the authorities are compelled to face the problem of taxation in a spirit of scientific impartiality. The highly developed credit system of the United States will force that republic into scientific methods of taxation.

Nevertheless, precisely through the channel of taxation, civil-

Legislative topics abandon the hypothesis of a credit system as evolved solely by competition, and as self-sufficient, without government interference or control.

ized governments have learned to use their own credit in a way which is especially open to the abuses which inhere in a period of highest expansion, and thus to inoculate business credit with contagion. Administrations seek to pay their expenses, or rather to obtain credit for their debts, by issues of paper money. Probably no government paper money was ever sent forth which was not expected to be redeemed in full value at some time, although that might be distant. Such a thing as fiat money has probably never existed as a proposition embodied in serious legislation. Nevertheless, the issues of money that have not been paid, or the payment of which has been either formally or tacitly renounced, have been very numerous, and the term fiat money has been attached to them. A brief statement of the arguments for and against the issue of government money will be presented, followed by discussion of the regulation of banking.

Among the advantages of paper money, has been mentioned the saving of interest for the government, since by that means it is able to place a loan free of interest, whereas if it borrowed upon bonds it would have to pay interest. But this advantage is far overbalanced by the swollen debts¹ incurred in depreciated currency, which really amount to a high rate of discount. It is also stated that such money is uniform and avoids multiplicity of issues by different banks; but the answer runs that it has been found easy to cause private banks to reduce their issues to uniform appearance and denomination, and that government guaranty of private bank notes lends them a uniform exchange value, if the government be a solvent one.

§ 2. It is true that, in times of war, finance ministers have frequently resorted to issues of paper. The argument has been made that it was necessary and was advanced with especial cogency at the beginning of the Civil War in the United States. Here and there a rigorous economist of the orthodox school, like Professor Simon Newcomb, the economist-astronomer, raised his

¹ Professor W. C. Mitchell estimates the loss of the United States Treasury from this source, during the Civil War, at over one-fifth of the war debt. *History of the Greenbacks*, p. 419.

Government paper money a promise to pay.

Supposed advantages of government paper money in saving of interest and uniformity of issue.

Government paper money an ingenious but expensive method of borrowing by needy governments.

voice in protest.² It was claimed that the credit of the government in the form of paper money was no better than in that of bonds, while the former, by virtue of its legal tender quality, caused the circulation and prices to fluctuate with violence and brought an unnecessary uncertainty into business. This indeed is the strongest indictment. It is worthy of note, however, that governments accustomed to the employment of experts in their treasury departments have been able to restore or preserve a good medium of exchange even when the credit of the country was heavily strained. For instance, the Russian and Austrian governments, without any notable reduction of the public debt, have in recent years restored their money system to a fairly sound condition.

Nevertheless, at the moment of catastrophe, when means of somehow coming to a temporary understanding with a vast body of creditors that have suddenly sprung up, as if from the dragon's teeth sown by Cadmus, seems to be imperatively demanded, it has been found impossible to avoid a temporary issue of paper money. This was true of the French government at the time of the Franco-Prussian War. It is to be remarked, however, that the French paper money was issued, not directly by the treasury, but as notes of the official state bank. It is simpler, under such circumstances, to give visible receipts for the services performed by contractors and soldiers than it would be to keep a book account of such endless debts. It is incumbent upon the *fiscus* to fund the receipts or warrants as quickly as possible, in order that the evil effect of their use as circulating medium may be speedily terminated. Accordingly, the French finance minister began payments to the Bank as early as the year 1874, in order to enable the latter to contract its issues; and resumption of specie payments was effected early³—January 1, 1878, whereas the United States did not resume until a year later payment of debts that had been put into form of paper money ten years before the Franco-Prussian War.

² *A Critical Examination of our Financial Policy during the Southern Rebellion.* New York, 1865.

³ Dunbar, *History of Banking*, p. 143.

It was said by Professor Newcomb⁴ that the national banks, as a means of borrowing by the issue of paper money, did not offer an improvement upon direct fiscal loans, since their credit would depend upon that of the government, so long as their reserves contained the official paper rather than specie. In time of war, however, if the exigency of the moment is very great, finance secretaries resort to diverse expedients and, in the United States, a great many different forms of money have been invented in order to avoid the appearance of an over-issue of any one kind. This has been as truly a means of cajoling the public as many resorted to by promoters of private schemes.

§ 3. One of the greatest disadvantages of government money issues is that, in the present state of public knowledge on such matters, they cater to a popular misconception as to the nature of the circulating medium, namely, that if anything can be made to work as a *circulating medium* it must also be an efficient and trustworthy *standard of value*. The public is quite willing to be deceived as to the circumstances in which the function of a circulating medium may be separated from that of a store of value. However, that weakness may be gradually remedied by education.

Another disadvantage, perhaps greater, is inelasticity. Even where banks are compelled to deposit bonds as a guaranty for their circulation, there is usually some provision for expanding or contracting the currency, though adaptation may take place tardily. Where the government establishes a state bank and interferes in its operation merely through appointment of officers, as in France and Germany, the circulation may be highly elastic; but where the treasury directly issues paper money to pay for supplies and services, taking it back again only in payment of taxes or of certain kinds of taxes, there is no possibility of expanding and contracting it according to the needs of business. It has been, indeed, proposed that the currency should be systematically pulsated according to the price of gold,⁵ but it will be

⁴ *Op. cit.*, ch. VIII.

⁵ Chapters II and III *infra* are devoted to the discussion of this and similar propositions.

Government paper money is a great perverter of public opinion but stimulates the progressive elements of the community to "campaigns of education."

A bank circulation, even if the bank be controlled by the state, is preferable to direct issues by government of irredeemable or partly redeemable paper money.

noticed that the changes in the volume of currency effected by this artificial manipulation could not take place until *after* the price of gold had fluctuated; consequently some divergence in the value of the circulating medium would occur before means could be taken to restore the disturbed parity between the paper money and the gold. The remedy is based upon the hypothesis of a disease.

§ 4. But the whole fallacy of the proposition lies in the simple fact that it expresses an attempt to supplant a private by a public circulation. This, in the nature of things, can never succeed, for it is demonstrable that the *circulating medium consists in the guaranties accompanying private business contracts*. Those guaranties are there and must be there to do the work. They cannot be excluded, except by stopping the work of circulation altogether, or at least by stopping the creation of the congeries of contracts which is necessary to uphold the structure of business. In order to carry on business without such contracts, it would be necessary that every particular act of production, down to the smallest, should be directed from a central bureau. Such a state of affairs would amount to a prohibition laid upon private arrangement and private contracts, or in other words, to an abolition of all thought or responsibility on the part of the people. There is nothing too absurd for the imagination of scheme-makers. Fortunately, in the United States, where government money circulates, it has been impossible to prevent dealing in deposits or entirely to exclude the use of bank notes.

The government is not properly a producer of industrial values, in the ordinary sense of the word. It is not to be denied that it does assure the values of security, of the administration of justice, of public recreation. It also does subvention some quasi-industrial values in the shape of light-house protection, regulation of rivers, building of highways, and sometimes the building or ownership of canals and of railroads, and even of theaters; but one can readily perceive that these undertakings will not be pushed forward at periods which will correspond with rising waves in private business. Indeed, public works are avowedly carried on in periods of depression in order to give work to

A government issue, from its inorganic nature, cannot supply the place of a private issue of credit.

laboring men. However beneficent such charitable activities may be, it is not perhaps for the good of commerce that attempts should be made to expand the circulation at a moment when the healthy action of the organism of business requires contraction. Moreover, the product which the government elaborates is not sold in the market for goods; it is apparently given away. Payment comes in the form of taxation. Ordinary business credit is taken up when merchandise is sold and inelastic bureaucratic credit is substituted. If the nation seems to pay for these good things with paper money, that must be redeemed some time or other by means of taxation. The substitution of a system of payment by means of taxation for one of payment by means of sale and liquidation with organic credit is like the mixing of oil and water. The movement of official credit does not correspond with that of private, and is a decidedly disturbing factor.

§ 5. For instance, during the inflation of private credit preceding a crisis, it is highly desirable for specie to be exported, in order that bankers and other debtors may be stimulated to exert a pressure upon those who, in turn, owe them, and thus, throughout the whole credit structure, responsibility be encouraged and bad business be weeded out. The crisis should thus be averted by its early precipitation. *Similia similibus curantur*. In a country, however, with even such a small proportion of fixed issue as has the United States, it has been found that this has left the reserves of the banks and wandered to the seaboard, in attempts to cross the ocean, but, like migrating insects and rodents, has been stopped at the shore. There, caged in the tills of banks in the great seaport, it has encouraged speculation at a moment when that should have been discouraged. The bears in Wall Street readily seize a period of depression combined with easy money to hasten a catastrophe which otherwise might have passed over with a moderate and reasonable period of liquidation.⁶ The disadvantage of government money that flows from its depreciation and the consequent ruin of creditors have been

Government
paper money
discourages
liquidation
and encour-
ages specula-
tion.

⁶ F. M. Taylor, "Do We Want an Elastic Currency?" *Political Science Quarterly* (vol. 11), March, 1896.

so often exemplified in history and have been dwelt upon so extensively that they hardly require further discussion.

Probably one thing that induces the electors to vote for it is the idea that government is better than private credit. Undoubtedly, in time of peace, the national credit is better than that of most corporations, but it certainly is not better than that of the whole business community, whose enterprise is generalized in the circulating medium, so that each portion of the latter depends upon the solvency of the whole.⁷

§ 6. Another popular fallacy which has supported the policy of government paper money is the total misapprehension as to the organic origin of money. This mistake is unavoidable, since the perception of the truth in this matter requires no ordinary ability and education. It is a point, like excessive protection, on which progressive men perforce must resign themselves to wait for the growth of public opinion. It is popularly supposed that money "represents" present goods, and that it acts as a circulating medium for this reason. Hence the whole brood of propositions that have been made and attempted to be enforced, from early times, to "coin all the production of the country into money." It has been looked upon by several party conventions in the United States, as a self-evident proposition, that the money of the country "represented" its produce and that, therefore, the "value" of the produce should be coined in order to circulate it. It was not supposed that a proposition of that sort needed the slightest demonstration. It was not deemed necessary to pause for a moment in order to be more precise about the word "represent." This is a point that even students of political economy have not squarely met. The recent development, however, of the theory of subjective values facilitates the deduction that *money does not represent present but does future goods*, and consequently the inflationist's argument, so far as it is founded on a false quantity theory and neglects the natural, organic genesis of credit in unexecuted contracts, falls to the ground.

Fallacy that money "represents" goods has been an argument for inorganic inflation.

Inflationists argue that if x money represents y goods, then $2x$ money must represent $2y$ goods. But that is only true if someone is under contract to manufacture the goods.

⁷ Dearth of "money" a result not a cause of suspension. Cf. O. M. W. Sprague, *Crises under National Banking System*, p. 197.

§7. Another objection to government money is that, while there is a gain in non-payment of interest, the usual depreciation of it puts upon the shoulders of the government, when the day of reckoning arrives, a burden far out of proportion to the values received. For instance, it is estimated that the United States has paid much more than the Civil War should have cost on account solely of the depreciation of the paper money issued. Private parties lose either the depreciation of money on hand, or the high interest they are compelled to pay, in order to make up to the creditor, who expects to be paid in such money, for the depreciation of his principal. Creditors lose in so far as they have not foreseen the extent of depreciation. Merchants lose because they cannot induce customers to repay the higher money costs. Curiously, when paper money begins to depreciate, the argument is always made that more should be issued, in order to lower the rate of interest. Doubtless before the depreciation becomes very pronounced, a small additional issue of money will have a temporary effect to moderate the rate in the locality where it is conceded; but, when the depreciation is rapid and has gone very far, probably no effects of this sort would be noticed. Finally, an issue of government paper money is a confession of bankruptcy on the part of the government; it probably tends to lower national credit more rapidly than the issue of obligations in any other form. It is astonishing what a vast quantity of government bonds can be absorbed, if only some time be given in which to market them, whereas the field for paper money is strictly limited.

§8. Government regulation of private credit now claims attention and more specifically that of the most prominent credit institutions, namely, banks. The following is a short account of the development of credit theory as applied to bank control; of the growing appreciation of it by officials and by bankers; and, in general, of the attempts to bring bank regulation into conformity with the real needs of banking. It will be perceived that this question, like many another, presupposes a knowledge of the facts before it can proceed to intelligent discussion, and that,

Heavy losses both to government and to citizens resulting from paper money issues.

when the facts are once known, the hardest parts of the task have already been accomplished.

What is known as "theory" and often condemned as such, is really but an attempt to arrive at the facts. To a person that has not made this attempt, it appears to be unnecessary, because they are supposed to be self-evident or to depend simply upon observation. On the contrary, facts are not self-evident; and they depend upon an observation, which, to say the least, cannot be made with the outer eye. The facts once agreed upon, the measures of government to be taken will depend upon abuses that have been experienced, but also upon the popular conception of what the facts are. The regulations adopted to remedy imperfections or cover abuses connected with a particular form of social service, such as banking, are never the same as they would be, if the people at large had a different or a more correct idea of what the facts were. A law is a compromise between the popular error as to what the facts are and what would otherwise be the logical conclusion from the facts themselves.

Misconception as to the organic nature of credit afforded ground for discussion concerning the elasticity of the circulating medium, and especially of bank money. The clearing up of this situation has depended upon the working out and popularizing of the idea that "business makes money." In England, William Dunning McLeod, and in the United States, Professors Charles Franklin Dunbar and James Laurence Laughlin are chiefly to be thanked for the prominence they have given to this principle. It has been, however, extremely difficult to bring it into a clean-cut form, even with the help of catchy phrases. The supposed distinction between notes and deposits has been the stumbling block in the way of a clear conclusion, for the theory of banking does not contrast them with each other, but both with reserves. The popular materialistic preference for notes and the perverted term "deposit" have led to endless confusions.

§9. Originally, a banker was a dealer in coin. He sat behind a table or "bank" guarding his treasure, and was little more than a money changer. It became easy, however, for him to do business in exchange, in other works, to buy and sell money for future

Government control should presuppose acquaintance with the facts of industry and finance, and also with public misapprehensions as to them.

Legislation for control must make some concession to those misapprehensions, since the public is the power behind the throne.

The question of banking laws is really one of the education of legislator and constituent upon organic banking.

Confusion of promises with guaranty fund arose at the very beginning of the practice of banking,

and is illustrated by ambiguous use of word "money."

delivery; and in that way he made loans, but these operations were looked upon purely from the materialistic side. The notes and deposits that he learned to give in making his loans were soon also called "money." The financial world, even up to the top, has always been obsessed by the tyranny of this verbal confusion between the bailment of material money in a case of hire, analogous to the hiring of a horse at a livery stable, and the making of promises for future delivery of money. It has not perceived that the latter were not meant to be carried out literally, but were simply used by business men as a guaranty for the fulfilment of business contracts. Money theories have kept as closely as they could along popular, materialistic lines, and have treated notes and deposits as money, and looked upon their value as subject to the same laws as those to which a commodity is subject. Among the inflationists, the fallacy persists in a crude form, "that money is what money does," that is to say, if the circulating function is established, the standard of value function will take care of itself. And the further fallacy persists that a bank "deposit" is practically money, because it is supposed to represent money deposited in a bank, whereas the literal deposit of money is but a survival of an ancient and superseded business, out of which banking indeed sprung. However, so far as application today is concerned, the notion is as fallacious as is the other that a laboring man is a slave because, in ancient times, labor was done by slaves, and because it may be historically true that the laboring class is evolved from the servile.

Bank "deposit" is another ambiguous term, leading to the idea that a bank loans out money "again."

It is along this line of popular thought that everyday language calls a bank loan a loan of "money," thereby assimilating it, as above remarked, to the hiring of a livery team. The banker is popularly supposed to be a dealer who takes persons' money on deposit, that is, for safe-keeping, and loans it out *again*^s (lay

^s "The commercial portfolio of the credit establishments is in fact nothing but the money of the public temporarily turned into drafts." Lysis, *Contre l'oligarchie financière en France*, p. 204. Excellent illustration of the capacity of emotional writers to put the cart before the horse. "In fact" it is the discount of the banks which furnishes money to the public. Correcter view is taken by Testis, *Le rôle des établissements de crédit en*

great stress upon "again"); whereas observation shows that there is no more than the slightest grain of truth in that idea. One would think that the introduction of the business of the safe deposit company, the facilities of which are often taken advantage of for safe-keeping of specie, would cause inquiry as to the difference between this revived old deposit business and the modern guaranty business. But when a form of speech is once rooted in the language, it is almost impossible to eradicate the fallacies that may cluster about it. A large part of the work of students in the political sciences consists in showing that new meanings attach to old terms. It is most curious that the misapprehensions here alluded to prevail in the face of the modern fact that almost everybody deals with a bank. He knows that part of his deposits come from his borrowings in his business. Why should he not draw the natural inference that the checks of others which he deposits come also from loans obtained previously by them? There is crying need for economic, and especially for financial, education. Although banking business has been developed, in practically its present form, for two centuries, the popular theory is still that of the money changer on the Rialto; and yet the economist is perpetually met with the question whether there is any practical application of economic theory!

§10. While the banker himself has accepted some of the false conclusions of nominalistic reasoning, he has rejected others, and is gradually emancipating himself from the rest. Under the misdirection of arbitrary legislation, he opens his profits-and-loss account on notes separately from that on deposits; he looks upon his notes as issued, not for loans, but for bonds, in the United States, in the face of the obvious fact that he buys his bonds with his capital; and on the Continent, where the deposit business is little developed, he looks upon deposits as a special warehousing business, although he takes the right view there of his notes; and he is only now, after years of false conservatism and confused timidity, receiving his education on the similarity

Legislative blunders have misled the banker himself.

France, 110. Also by A. Lefranc, *La liberté du commerce et les établissements de crédit*, p. 78.

of the note to the deposit, through the efforts of a few statesmen, influenced by academic models, like the Hon. Charles N. Fowler of New Jersey.

Rôle of the phrase "an asset currency."

As usual in any campaign of education, it has been necessary to cajole the banker up to this point by inventing the new and again inaccurate expression, "an asset currency." This phrase has taught the bankers of the United States that bank notes are merely issued in exchange for individual notes, in precisely the same sense as deposits are so exchanged—a point that was fully explained by Dunbar and McLeod, thirty and forty years ago. It remains to educate the banker and the public as to the peculiar guaranty that this exchange involves.

Academic analysis slowly spreads through the community.

In legislation on the subject of banking, one expects to find some progress, and, as already intimated, not without realization. Distinctly, the discussions of the nineteenth century have led to clearer ideas and to some improvements in legislation. The influence of professors of political economy and of close students of finance has been, of course, quite indirect. Even what college undergraduates have learned on this subject, in the last twenty-five years, has not been clearly retained by them when, in the later hurlyburly of life, and under the pressure of the practical needs of the moment, they have too often lost the general bearings of what they had been taught. Clearer ideas on any public topic involve a modification of ideals, and this concession, in turn, leads to a course of conduct more in conformity with actual conditions. These fixed circumstances, as already implied, consist not only in the physical plant of modern life, but also in habits and customs which, whether they be reasonable or unreasonable, are even more slowly modified than the conceptions which have just been shown to be undergoing change.

Is the banking business so important as to be singled out for state control?

§ 11. One such environing form of thought is as to the special nature of the banking business: that it is much more important than any other, since it involves control of all businesses. While that view is partly true, it is too frequently exaggerated. Is that calling so different from others that all the demand liabilities of the bank should be warranted by the state? It has been customary for some governments to guarantee the note issues of

their banks, or to provide, in banking legislation, that the national bank shall itself put up a guaranty fund for the notes rather than for the deposits. And from this precaution the step seems very easy to the setting apart of a guaranty for all of the demand obligations, that is to say, for the deposits also. It has not been customary to compel banks to surrender to the state a guaranty fund covering deposits. Some countries, like France, do not guarantee even the note circulation. It is significant that the Bank of France, which already has the largest note circulation and whose business is practically entirely a note business, is subject to no legal regulation of its demand liabilities, except a nominal upper limit of issue; and that this same bank carries the largest reserve of any such institution in the world. In other words, without legislative provision, it takes unsurpassed precautions to safeguard its demand obligations. It is only fair to say that the Governor of the Bank is appointed by the government and that there is moderate play here for administrative interference.⁹

But the business of raising potatoes is a business of public interest—everybody consumes potatoes. They are needed even more than bank loans. Why should not government guarantee the price of the potato crop? The proposition for the state to guarantee bank deposits is repugnant to the principle of private enterprise; but the modified proposition to encourage banks voluntarily to organize themselves into a guild for the defense or insurance of their notes and deposits may be a reasonable one in the present state of public opinion on finance and in the present tendency of businesses and classes toward separatist organization.¹⁰ Such a scheme should not be one of “free banking.” The guild should pass on its own membership.

So long, however, as the idea generally prevails that a deposit is

⁹ Dunbar, *Chapters on Banking*, p. 152.

¹⁰ For an account of the workings of the Oklahoma deposit guaranty, *vide* Thornton Cooke, “Insurance of Bank Deposits in the West,” *Quarterly Journal of Economics*, vol. XXIV, 85, 327; W. C. Webster, “The Depositors’ Guaranty Law of Oklahoma,” *Journal of Political Economy*, vol. 17, No. 2, Feb., 1909.

evidence of money given to the banker, and that the latter loans out the money deposited, and also the other inconsistent idea that paper money, whatever be its source, is a long-time standard of value—those misconceptions will necessarily influence legislation and furnish an excuse for restrictions which hinder rather than further business. It is impossible to obtain scientific legislation in advance of the movement of popular opinion. This is a wise provision of an over-watching Providence, which has put the welfare of the whole people above that of any particular institution, such as banking, and which decrees that the imperfections of particular institutions shall not be removed until the whole people has been educated to grasp the fundamental principles.

“Elasticity”
has been the
form taken by
the organic
idea within
the banking
circle.

§ 12. There have been two main questions to work out in banking legislation: one as to the elasticity of the currency, and the other, subordinate to the first, as to the assimilation of notes to deposits. In early times, notes were used almost exclusively, the deposit business came in gradually, and for a long time it was not considered that it was really banking. When the question of the influence of credit upon crises first arose, bank credit was almost entirely in the form of notes. During the suspension of specie payments in England, at the time of the Napoleonic wars, an investigation into the operations of what was known as the “bank restriction act” of 1797, whereby the Bank of England was allowed temporarily to refuse payment on its notes, and in consequence of which the price of gold and of exchange rose considerably, led to the making, on June 8, 1810, of the famous “Bullion Report,” which is one of the most carefully considered documents that ever issued from a legislative committee.

The “Bullion Report” is mainly taken up with a convincing argument that the rise in foreign exchange and in commodity prices was due to inflation of Bank of England notes, as a consequence of the exemption of the Bank from the obligation to pay specie on demand. The keynote of the Report is that financial legislation is interference, and that “sound money” is furthered by leaving the banker exposed to his natural obligation as a debtor. But the “Bullion Report” saw clearly the need of loan-

ing according to the demands of business; in other words, that business makes money, that the amount of loans is practically equal to the amount of business. And it went further and indicated that deposits performed the same function as notes. This statement at that early period is so remarkable that it deserves quotation:

The effective currency of the country depends upon the quickness of circulation, and the number of exchanges performed in a given time, as well as upon its numerical amount; and all the circumstances, which have a tendency to quicken or retard the rate of circulation, render the same amount of currency more or less adequate to the amount of trade. A much smaller amount is required in a high state of public credit, than when alarms make individuals call in their advances, and provide against accident by hoarding; and in a period of commercial security and private confidence, than when mutual distrust discourages pecuniary arrangements for any distant time. But, above all, the same amount of currency will be more or less adequate, in proportion to the skill which the great money dealers possess in managing and economizing the use of the circulating medium. Your committee are of opinion, that the improvements which have taken place of late years in this country, and particularly in the district of London, with regard to the use and economy of money among bankers, and in the mode of adjusting commercial payments, must have had a much greater effect than has hitherto been ascribed to them, in rendering the same sum adequate to a much greater amount of trade and payments than formerly. Some of those improvements will be found detailed in the evidence: they consist principally in the increased use of bankers' drafts in the common payments of London; the contrivance of bringing such drafts daily to a common receptacle, where they are balanced against each other; the intermediate agency of bill-brokers; and several other changes in the practice of London bankers, are to the same effect, of rendering it unnecessary for them to keep so large a deposit of money as formerly.¹¹

§ 13. The Bank Act of 1844, known as Peel's Act, professed to be founded upon the principles of the "Bullion Report," which, however, in some respects, was profoundly misinterpreted by the Act, for the "Bullion Report" was infused with the spirit of freedom that prevailed at the time that it was written; whereas Peel's Act endeavored to restrict the issues of the Bank

The "Bullion Report" clearly perceived the organic nature of the bank loan, and partly indicated the economic identity of the deposit with the bank note.

Peel's Act misinterpreted the "Bullion Report,"

¹¹ "The Bullion Report," *Sound Currency*, vol. II, no. 14, p. 23; found also in W. G. Sumner's *History of American Currency*, Appendix.

within the narrowest limits. The former understood that notes were issued in response to the needs of commerce, whereas the latter looked upon the notes as money. It, therefore, regarded them as a standard of value, whereas the former appreciated them only as a means of circulating goods.

The Act fell into this error, doubtless, also through the influence of the materialistic reasoning of the economist Ricardo, whose doctrines, correct as they are in many respects, and hedged about with every safeguard against absurdity of conclusion, nevertheless gave a wrong turn to analysis of money and credit. Ricardo, in endeavoring to account for the level of prices, had jumped at the apparently obvious conclusion that the contraction of the amount of paper money affects the level of prices in the same way that it is affected by the similar movement of coin.¹² Peel's Act, accordingly, sought to make every paper pound in circulation as good as a gold pound. It required that for every pound of paper money, *i. e.*, Bank of England notes, issued, a corresponding pound of gold should be put in reserve. Doubtless the effect of this legislation was to accelerate the use of deposits, since no real note business could be done under legislation of this sort.

In order to drive this legislation to its logical conclusion, let it be supposed, for instance, in the United States, that a "popular" policy should require the banks to hypothecate with the state a dollar of gold for every dollar of *deposits* that appeared upon their books. Unless some new financial expedient were immediately discovered, whereby business guaranties could continue to be independently made, it is little exaggeration to say that business enterprise would come to a standstill, and that the lawyer would be constrained to make his own shoes, and the shoemaker to plead his own cause, until, at last, the antiquated money system could be resurrected. But it is not probable that any such extravagance will be legislated, for the logic of events is more powerful than that of the street corner. *Business must*

¹² David Ricardo, *Principles of Political Economy and Taxation* (E. C. K. Gonner, ed.), p. 125.

by a futile endeavor to make every pound as good as gold.

Deposit guaranty could not go to the extent of a pledge for every dollar of outstanding deposits.

have its organic guaranty, no matter what the politicians, or the legislatures, or the statute books, think about the matter.

It is claimed that government guaranty of deposits is calculated to weaken free competition and hence responsibility in banking. It affords the politician-banker an advantage over the tried, experienced banker, and discourages the latter. However, the bankers will doubtless seek compensation in consolidation and a common understanding—a result not popularly desired. They will try to ostracise the politician-banker.

The "Bullion Report" produced little more than an academic effect, and Peel's Act was after all a beginning of legislative reform. It is admitted to have had the good result of stimulating the banking department of the Bank of England to keep a larger reserve in time of crisis and thus, indirectly, it brought into greater prominence the difference between the circulating and guaranty functions. The Act also recognized that inflation comes through credit, although it made the mistake of thinking that undue commitment arises solely from expansion of notes; for it attempted to prevent crises by restricting the issue of notes alone. The banking department, consequently, was caught with an insufficient reserve against deposits several times thereafter, until it learned its lesson from experience.

§ 14. The first two United States Bank acts, those of 1781 and of 1816, recognized the resemblance of notes to deposits to this extent, that they did not mention the distinction between the two in limiting the amount of obligations into which the bank might enter to twice the capital together with the reserves; but, as already mentioned, deposits were, in those days, insignificant in America as well as in Europe, and probably were not thought of especially in the framing of that provision. The present National Bank Act of 1863-64 made formally a backward step by restricting the application of its guaranty fund to redemption of the notes loaned. Of course, it could not have guaranteed deposits by a dollar to dollar fund. The mention of notes at all is a symptom that deposits were, by that time, 1864, becoming more important. But the act made a step forward in only limiting the amount of notes loaned to the capital, and in thus allow-

Peel's Act attempted too much in the way of discouraging undue inflation, and naively ascribed inflation to bank notes alone.

The first and second United States Bank Acts ignored the deposit business.

The third Act, the National Bank Act of 1864, tried to secure the solvency of banks by limiting and securing the note issue, but unwittingly did business the service of leaving deposits free from regulation.

There are two inconsistent movements before the public: one to render the note issue elastic, and the other to extend note guaranty to deposits. The former is more in line with principle.

ing obligations in the form of deposits to be increased indefinitely. Finally, in 1894, under the stimulus of the general financial discussion that was going on in the country, a plan was presented at the annual meeting of the American Bankers' Association held in Baltimore, which proposed to do away with the deposit of government bonds as security for the notes, but to defend them by a guaranty fund to be raised by a tax upon the bankers as a guild.

§ 15. This idea is bearing fruit and has thoroughly permeated recent, general, intelligent discussion of the banking question. Men are beginning to ask, why should bank notes be absolutely secured? especially when bank deposits are not and cannot be. It is true that reformers of the more popular order, taking the other horn of the dilemma, are demanding that bank deposits be made just as safe as bank notes. In general appreciation of thinking persons, the "banking principle" in spirit is now getting the upper hand of the "current principle." The movement is not confined to this country.

The proposition to make a rigid requirement to invest deposits and reserves in absolutely good securities is not a new one; but it is impracticable. Among other bad effects, it would completely paralyze a bank which desired to make a judicious investment of the resources that it had acquired from third parties; good bills of exchange, drawn by solvent persons, are preferable to a portfolio full of stocks and bonds subject to the fluctuations of the stock exchange and which could not be sold on a falling market in the case of a crisis. Almost all banks invest temporarily in government bonds, but the English banks have learned to their cost the disadvantage of holding English consols for the last two years. Those banks have been compelled to change their investment in order to stop the effect of the depreciation of 'the best security in the world,' which had fallen in a few years from 114 to 91.¹³

Raffalovich shows plainly the evils of banking on bonds, and, *a fortiori*, of a dollar-for-dollar metallic or other guaranty fund.¹⁴ The same point has been made by Juglar.

¹³ Arthur Raffalovich, *Marché financier*, 1901-02, p. 62.

¹⁴ Banking on bonds is not banking. André Liesse, *History of Banking in France* (National Monetary Commission), 63, 72, 104. Cf. Maurice Patron, *Bank of France* (National Monetary Commission), 9: "The bank note tends to become nothing more than a token representing money."

§ 16. It may be noted, in passing, that the object of American legislation with respect to banks has been different from that of English. In the latter country it has been sought to prevent crises by making inflation impossible; in the former, the intention has been more democratic, namely, to provide absolute security for the circulation. It has been supposed that notes are more used by the common people, and hence more deserving of protection. Security of this sort, however, has been accompanied by inelasticity. It would appear, at first sight, that the small circulation in the United States, compared with the business done with deposits, would render the question of elasticity of the circulation of comparatively little importance.¹⁵ There is much truth in this view, and perhaps that is one reason why that country has been so behindhand in obtaining better legislation upon the circulation. Nevertheless, as Dunbar aptly remarked,¹⁶ one cannot tell how large the circulation might be if it were not restricted by the requirements of bond guaranty. This is only another way of saying that legislative regulation dabbling in notes alone, like that contained in Peel's Act and in the National Bank Act, has stimulated unnaturally the growth of the deposit system. Is it to be inferred that when legislators thoroughly interest themselves in deposits also, the banking business will be finally destroyed? However, everything points to the view that the deposit system must increasingly preponderate over the circulation. So long as the latter is wanted, however, it should be properly regulated, if regulated at all, and not in such a manner as to derange the level of prices and the rate of interest, or to stimulate stock speculation.

The law of June 3, 1864, under which the existing national banks of the United States were organized, constituting really the third national bank of that country, abolished the limit of bank indebtedness that had been set for the first and second banks. This change may be looked upon as a distinct advance in the line of elasticity of bank obligations and, in view of the

A bond-secured circulation necessarily inelastic.

Comparatively small importance of circulation in the United States.

The National Bank Act of the United States favored elasticity of deposits but rigidity of circulation.

¹⁵ An elastic currency is not a cure-all for crises. O. M. W. Sprague, *Crises under National Banking System*, 213.

¹⁶ *Op. cit.*, p. 75, *sqq.*

After the civil war, retirement of government money by Secretary McCullough was stopped by act of Congress, but retirement of bank note circulation by Secretaries Manning and Windom was allowed to proceed.

restrictions imposed on the circulation, as a decided favoring (or salutary neglect) of deposit business. On the other hand, it followed the prevailing fashion in concentrating the regulating and paternal care of government upon the circulation, following in this respect the so-called "free banking system" of New York, as well as Peel's Act. The inconveniences connected with this fussy preoccupation with notes were keenly felt by the business world at the time of the rapid payment of the national debt under Secretaries Manning and Windom in the ninth decade of the last century. As the indebtedness was raised the bonds deposited were rapidly retired, and much needed circulation vanished with them.

The Baltimore Plan proposed to remove the cause of the inelasticity of notes—the bond deposit.

§17. Consequently, in 1894, the convention of bankers in Baltimore formulated a new plan henceforth known as the Baltimore Plan, which proposed to follow the so-called "safety fund system" also of New York, the central idea of which was simply the formation of a fund to secure the circulation through a tax upon the banks. This proposition, of course, marked a step towards more ideal conditions, for it removed the government guaranty, to that extent placed the circulation more on an equality with the deposits, and gave it freedom of expansion. But it was merely a project, and, as such, was the starting point of a long agitation, the end of which has not yet been reached. This movement was followed by the Indianapolis Convention of January, 1897, which discussed thoroughly the principles of monetary finance from a scientific point of view, and made progressive recommendations.¹⁷

The Indianapolis Convention.

After the strenuous monetary political campaign of 1896, and in view of the then impending campaign of 1900, Congress was compelled to take action upon the question of the currency, and passed the act of March 14, 1900,¹⁸ which is a monument of timidity. The first object of the act was to secure the gold standard, and this it sought to do by increasing the treasury

¹⁷ *Vid. Report of the Monetary Commission of the Indianapolis Convention, 1898, by J. Laurence Laughlin.*

¹⁸ F. W. Taussig, "The Currency Act of 1900," *Quarterly Journal of Economics*, XIV, pp. 394, 450.

reserve against government notes, and by giving to the United States treasurer additional facilities of borrowing. The best way, however, would undoubtedly be to abolish government paper money altogether and to enforce strictly redemption of bank circulation by the banks themselves. But it was not felt that the country was ready for such a liberation from financial swaddling clothes; the labors of a long series of monetary reformers were neglected. So the act made a slight move towards greater note elasticity by allowing the banks to issue notes up to 100 per cent. of the bonds deposited instead of the 90 per cent. theretofore permitted, and to re-issue notes immediately after they had retired them, instead of observing the period of delay which a law of 1882 had prescribed, and by reducing the tax on circulation. At the same time it lowered the interest on the bonds deposited as security. Action of this sort is noticeable in the present connection chiefly as showing that the question of elasticity of the currency was under actual discussion, and that the legislature, although reluctantly, was compelled to acknowledge the pressure of enlightened ideals.

§ 18. The Hon. Charles N. Fowler, of New Jersey, has, in a series of often amended projects, offered to the country a measure of real reform, and may be regarded as one of the leading educators of public opinion found in political circles. Even his bills do not go to the full extent of complete freedom of issue, but are largely influenced by the German model. He proposes to remove the bond guaranty; advocates the safety fund; and, until his last bill, proposed to tax additional note issues at an increasing rate. For some reason he has supported, in his latest proposition, a uniform tax on all issues.

The safety fund principle would appear to be in accord with the *political* movement of the time. The tendency now is for all interests to unite, each in its own domain, thus forming separate guilds or economic classes. The consolidation of the laboring classes into national trade unions on the one hand, and of almost numberless manufacturing interests into national and international trusts, on the other, is an evidence of this spirit of the age. That legislation should help the banks to combine into one

The gold standard act of 1900 recognized the need of greater elasticity of issue by some concessions in that direction.

A safety fund assessed on the banks themselves to guarantee both deposits and notes would seem to be politically expedient.

national guild is not surprising, although seemingly inconsistent with the protestations of legislators that they are deeply concerned to maintain competition, which is understood by them to mean "small businesses." The law recently passed by the United States Congress,¹⁹ facilitating the union of banks in different sections of the country, is quite along this line, and in this political sense, indicates a movement in advance; but the requirement of deposit for guaranty of the private notes purchased with the emergency circulation is retained. These local associations, however, cannot bulk largely in the financial world, as they have authority only over the emergency circulation, which is to be taxed ten per cent. per annum. Mr. Fowler had also proposed that the banks should assume the redemption of the United States notes, and had provided a measure by which the latter should finally be paid off by them without expense to the treasury. But this enlightened provision has also been dropped.

§ 19. This brief sketch of legislation on the subject of notes must suffice, for it is designed less for information about the various acts mentioned than to afford some notion of the extent to which the organic conception of finance is gaining a foothold. History of banking legislation is but one phase of that of corporation legislation in general. Corporations were originally chartered in order to secure the benefits that would accrue to a large number of persons of moderate means who might, by laying their capitals together, create a fund adequate to the size of the enterprises of exploration and trade which the growing markets of the modern world invited. Indeed, it has always been permitted to do this. The first encouragement from governments consisted, however, in privileges of monopoly and of the exercising of police and judicial powers in foreign parts, which made it seem more attractive and safe for these large partnerships to be constituted. Subsequently, the principle of charter was extended to the more modern business enterprises of manufacturing and banking. It was found that the associates often suffered seriously from legal responsibility to which they were subject with respect to enter-

¹⁹ Approved, May 30, 1908.

Banks, like other corporations, were early encouraged by general legislative acts of incorporation.

prises over which they had little or no control, and with which they had no connection, except the important fact that, under the corporation sanction they had contributed to them their capital. The idea that responsibility for management was all too strictly associated with shares in funds was awakened by the circumstance that many of the subscribers were women and minors, persons that were not supposed to be fully competent in business matters, and therefore deserving of the protection of the law. Consequently, a general course of legislation was entered upon in all countries, tending to render the associates in a business enterprise free from responsibility for failure or mismanagement beyond the sums which they had severally paid in or promised, or, as in the United States national banks, beyond a limited multiple of such sums.

There ensued a separation of management from investment, and consequent abuses,

Thus, the legislative encouragement towards the laying together of capitals was followed by a separation of economic interests from economic trust and confidence; and out of the consequent weakening of individual responsibility sprang up bad management, incapacity, flagrant abuse, and speculation. The attempt to cure the second series of evils was not met by removing the original cause,²⁰ namely, the privileges and immunities whereby the associates were induced to come together. Doubtless that could not be done. The world needs large capitals, and in the event of the failure, say of the United States Steel Corporation, it would seem ridiculous to sequestrate the little remaining property of a man of small means simply because he owned a share or two in that corporation.²¹

However, enlightened legislation should look partly in that direction. If the responsibility of the shareholder were greater,

²⁰ Parallel with this remedying of the evils of limited liability of stockholders by a system of checks and balances, is the remedying of the evils of note inelasticity by a mechanical note-redemption enactment. The requirement of a pledge of bonds made the notes inelastic. The radical cure lies in the repeal of the requirement, as proposed in the Fowler bill. Cf. note 24, p. 138, *infra*.

²¹ Limited liability an outcome of the corporation method of business. Fisher, *Capital and Interest*, 83.

men would be more careful in putting their means where they could have little influence in the management of them; and while the amount of capital brought together might be somewhat less, with that lessening the growth of monopoly would be checked and the tendency would be to make management more conservative. But modern legislation seeks to cure the evil, not by removing the cause but by an elaborate system of palliatives, a system of "checks and balances," by inspection, by registration, by sworn prospectuses, by prescribing the substance and form of the organization, the duties of the officers, and, finally, by official valuation of the assets and by administrative consent to indebtedness and to nominal increase of capital.²² Perhaps, in view of the state of public opinion, this is the best that could be done. Certainly there are ways of doing this well, and of doing it ill. European countries have been more thorough in this detailed legislation than the United States, although the latter country is moving rapidly in the direction of minute and complicated legislative prescription. It is to be noted that the European laws, excellent as they are and formulated by mixed commissions of legislators and economists, after interparliamentary sessions lasting many years, have been unable to prevent cases of flagrant abuses of trust on the part of officers of banking and other institutions. The involving of the Leipziger Bank in the failure of the Cassel Trebertrocknung concern was one of the most notable cases of this sort in recent years. "In Germany the great banks take a very active part in industry and commerce. Naturally the risk is very great, if the directors and officers are unable to resist temptation. This is the price that must be paid when financial institutions make industrial investments."²³

§ 20. Banks, along with other corporations, have gone through all of the stages of attempt to cure the results of bad theories of paternalism with more paternalism,²⁴ and to increase competi-

²² An idea of corporation-control legislation may be gained from W. Z. Ripley's *Pools, Trusts, and Corporations*.

²³ Raffalovich, *Marché financier*, 1901-02, p. 54.

²⁴ Dependence on legislation is bred by excessive legislation. Cf. O. M. W. Sprague, *Crises under National Banking System*, 273.

which were
sought to be
remedied by
elaborate
checks and
balances,—
further legis-
lation;

tion by regulation of the form of business, rather than (what is the manifest duty of legislation) by the simplifying, expediting, and sharpening of remedies between man and man for wrongdoing. Democratic tenderness at the possibility of offending a citizen who is a voter, has played its part in this misdirected law-giving, which has erected in the corporation a man of straw who can be clubbed when evil occurs. Thereby the sense of justice is sought to be appeased, for the moment, at least, under the erroneous impression that a transgressor has been punished.

The object of legislation should be to recognize a clear distinction between *organization for the purposes of production*, on the one hand, and *individual responsibility* on the other. The former should not be allowed to interfere with or to obscure the latter. The fact that stockholder's responsibility is qualified should not destroy the amount of *personal responsibility* to be located somewhere in connection with an enterprise. Some one must always be found who completes the full original amount. Apparently, the proper person is the corporation officer. In case he has small pecuniary interest in the concern and possesses no other attainable property, obviously the only way of enforcing responsibility is by criminal process against the person. No organization for production should be allowed to stand between the wrongdoer and his punishment. The official who loots the stockholders through the fiction of a corporation, unearned services, or a construction company or similar misuse of the purposes of the corporation form, should not be protected. The capitalist who sets up directors of straw should be considered to have done whatever they do. The courts have heretofore assumed a weak attitude toward evil-doers of this stripe, not because they were blind to the offense, but because they could not see their way out of the corporation legislation, for the fiction of a corporate person or entity has very naturally, in the minds of men of the legal profession, overshadowed the plain economic undertaking, which is unthinkable unless located in natural persons. If, however, they had recognized from the first, that *incorporation was primarily for the purpose of production*, and that, *when it comes to a question of responsibility for wrongdoing* (a department of

but it is open to question whether sufficient effort has been made to hold the individuals economically responsible, up to the highest ideals of trusteeship.

distribution) *there is no such entity as a corporation*, perhaps they could have given a better turn to the law. Such indeed is theoretically the teaching of the law of equity; but equity has a clearer vision when reinforced by economics and finance. Candidates for the bar should be required to study political economy and finance in the United States as they are in Europe.

§ 21. Recent years mark a decided improvement in the American standard of lawgiving, which might seem a partial return to the more primitive parliamentary dignity of the ante-caucus and ante-boss era. The public, however, now pays more attention than formerly to the universities and less to legislatures. The movement is away from inconsiderate action and toward reasoned deliberation. It is evidenced in the increased tendency of law-giving bodies to accept expert advice; in the appointment in the several states of permanent commissions on taxation, railroad, and corporation control, and on other subjects previously a prey to the haphazard raids of the legislative caucus, itself the offspring of campaign buncombe; in the closer connection of the legislative with the social experiment, statistical, and pedagogic branches of the state governments (the last found in the state universities); and, most notably, in the appointment by the Congress of the two permanent commissions on finance and on the tariff. Nor must the extension of the powers of the Interstate Commerce Commission and the erection of a court of commerce be omitted from the account of social regeneration. An impediment, perhaps, is found in the rapid infiltration into the population of undesirable elements from abroad.

The National Monetary Commission has begun its work by the preparation and publication of a series of reports covering the fields of domestic and foreign banking, with detailed statistics, and calculated to afford a world view of state activity in the matter of social aid to the organization of private finance. The mind of the public having thus been ripened upon the limitations and possibilities of government interference and coöperation, a plan has been presented to the Commission by Senator Aldrich, intended to combine in the wisest way the dictates of theory and

Improvement
in govern-
ment through
specialized
administration
affects cor-
poration
methods.

Influence of
universities
growing.

The National
Monetary
Commission of
the United
States.

The Aldrich
Plan for a
Reserve Asso-
ciation.

universal experience with a due regard for the traditional national prejudices.

Thus, he proposes to concentrate the bank-note control into a Reserve Association with elastic power of issue, but forbidden to deal in the unpopular Wall Street collateral loans, and, perhaps unfortunately, hampered by the rule of uniform discount rates. It is to deal both directly and through local, subordinate associations, with the banks of the country, so as to afford them ample elasticity of loans and deposits in times of pressure and crisis. The underwriting business, so much practiced in Europe, and, as experience shows, essential to the completion of the banking structure, is to be recognized sufficiently to bring it within the national control through the creation of a separate class of nationally chartered trust companies.

The plan is along the lines of development traced in this chapter: a further definition of social function and thereby a greater activity, adaptability, and sureness in individual enterprise, which is socialized while intensified. Business promises will be made more freely, while pernicious epidemics of the crowd mind will receive their needed prophylaxis.²⁵

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²⁵ For interesting accounts of the plan, see articles by Cooke, Scott and Sprague, *Bulletin of the American Economic Association*, Fourth series, No. 3, June, 1911.

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II

BIMETALLISM AND OTHER MATERIALISTIC STANDARDS

§ 1. The legislative theory of the standard is superimposed upon the organic, is additional to it, and requires separate treatment. It comprises a considerable group of topics, which may be divided into two general classes, namely, the proposed materialistic and the proposed psychological or ideal standards. The former are monometallic, bimetallic, symmetallic, joint-metallic, the tabular, the multiple, the "gold-exchange." The latter consist in *rules of administrative finance* to be adopted upon investigation into the circumstances under which justice may be meted out as between debtor and creditor, where the repayment, as is implied in the very nature of a debt, occurs at an appreciable interval of time after its incurring.

Standards of deferred payments are either materialistic or psychological.

As to the materialistic standards, a separate topic has generally been treated on the hypothesis that the level was entirely determined by them. Consequently at the outset a certain embarrassment is encountered, since it has been discovered that prices, during periods that are of any real importance to business

For the sake of vividness, the discussion as to the materialistic standard is partially conducted on the artificial hypothesis that

men, and to debtors and creditors, are very largely under the domination of credit.

the "standard of value" regulates prices,

Nevertheless, in long periods, they do revolve about the metallic value; although that itself is difficult of determination on account of credit reactions and hence discussion as to proposed materialistic standards of debt-absolution may be held to be pertinent only in so far as any material standard may affect them. The reader is warned that in treating prices as though they were wholly fixed by metallic determinants, one is committing the error of artificial assumption, and is introducing a false simplicity into the discussion. Partly, perhaps, because of tradition and habit, it has seemed impracticable, however, to separate the method to be pursued in this part of the study of credit from the *preliminary hypothesis* of independent determination of prices by a precious metal, and consequently, the new topic takes as its point of departure this concession of an extent of influence inherent in it which really does not exist. Credit will not for the present be studied in its *organic relation* to the level of prices, but, on the contrary, the popular view will be provisionally adopted, which is rivetted solely upon changes of level as an argument for *administrative interference* with the status of creditor and debtor.

It is only a rough approximation to say that, in very long periods, the standard of value is established by the legal coin. On the other hand, on the average, the age of farm mortgages "now in force" is only about two and one third years in the United States.²⁶ City mortgages are often made for one year, not with the expectation that they will be paid within that space of time, but for the purpose of allowing the interest rate to be readjusted, by mutual agreement between debtors and creditors, according to the rates prevailing at the end of consecutive years. If the interest rate is mutually adjusted to the fluctuation of the level of prices, and both are the result of the state of credit, variations in the market price of the metallic standard of value, however that may find expression, can exert but an indirect effect

and on the further and false hypothesis that moderate fluctuations of prices are injurious.

²⁶ Fisher, *Appreciation and Interest*, p. 83.

upon that level within any such short period. Nevertheless, it will provisionally be assumed that every creditor and debtor is exposed to prejudice by pulsations in the markets for the precious metals.

§ 2. It is not to be denied that there is some compensation between the movement of credit and the supply of gold, or that credit may be, to a certain extent, substituted for gold; but those are financial details. Nor is it to be gainsaid that in very long periods there may be, in a sense, an influence of gold upon the amount of credit, for an incentive to credit economy may arise from lack of that metal; during such periods, undersupply of it may stimulate saving methods in finance and in the loan organization. But there is no adequate compensation between the amount of gold going into the supplies offered for money or for other uses, and the bulk of credit.

In fact, if there is a reciprocal influence between gold and credit determining the quantity of the two with respect to each other, it works rather the other way: gold is principally wanted under the modern money system, not for the purpose of carrying on exchanges but for the filling up of the reserves and as a guaranty fund. The extension of the market and of business organization, which creates additional loans, calls for corresponding metal for use in the idle cash, so that credit is the chief determinant in the demand for gold. That which is applied in the arts constitutes less than one-quarter of the total raised.²⁷

In a sense, perhaps, there is a compensatory action between credit and gold, for, when the former is contracted steadily, and there is a prolonged fall in prices below what might be called, if it could be determined, the natural value of the latter, then there is a stimulus to the production of the metal, investment in its mining goes on, and an apparent attempt to compensate for the contraction of credit by additional production. In the long run, the supplies arrive in a pulsatory manner—they are pumped up, as it were, by the recurrent contraction of credit. That effect

²⁷ In 1905 apparently 18,211,419 ounces of gold were raised, and 14,151,000 ounces of that were coined.

Abundance of credit constitutes a demand for gold, and lack of gold is a stimulus to credit economies.

However, lack of general credit is a stimulus to gold mining; revival of prosperity often appears in that way.

was very noticeable in the recent history of the production of gold, in the year 1885, which was the moment when prices had reached their lowest level, and when credit had contracted to its utmost, after the expansion of 1880 and 1881. That was the very time when the first large investments were made in the South African mines. Thereupon, a period of boom in gold mining supervened. In 1889, it reached a tremendous scale and the amount raised became very large.²⁸ There was a slump after the Baring crisis of 1890, but subsequently, when prices reached the bottom again, about 1895, there started up a new boom in the South African gold mines; so that it is a natural inference that the influence of contraction of credit in stimulating supplies of gold is important, and that, if anything of the sort is true, it is that gold is forthcoming in order to compensate for lack of credit, rather than the other way about. The new supplies of metal tend temporarily to lower interest and increase nominal capital.

It is often said that the great gold finds at the end of the Middle Ages, following Columbus's discovery of America, were the cause of the tremendous expansion of commerce and industry that took place after that event. The probability is that the causal impulse ran the other way. It was not new gold but thirst for it that sent Columbus on his voyages. In a lecture entitled "The Present Monetary Situation,"²⁹ by Professor W. Lexis of Göttingen, delivered at Dresden, in 1895, he said, speaking of the Californian and Australian finds, and of the great activity in business that followed them: "The discovery of gold did not call forth this activity but served to accelerate and to further it." Again, speaking of the recently found treasure, he said: "Neither has the new supply of gold in any way operated as a stimulus in the business world at large; it has only served to increase the stores of gold lying idle in the cellars of the banks."³⁰ At most, then, the gold supply may cause reaction, but not action.

Gold discoveries important for prosperity, but must be clearly distinguished from the real cause—enterprise.

²⁸ Van Oss, *Stock Exchange Securities*, p. civ. The first considerable returns from the Rand were in 1887. Raffalovich, *op. cit.*, year 1893-94, table, p. 323.

²⁹ American Economic Association. *Economic Studies*, vol. I, no. 4, p. 254.

³⁰ *Ibid.*, p. 238.

Importance
of credit in
fixing the
price-level.

The amount of credit determines what shall be the gross demand for the gold needed to be put into the guaranty fund. That alone, of course, does not determine what shall be the value of each piece of coin nor the level of prices. The latter depends upon the value of gold as well as upon the demand for it. That tells the miner and mill-owner how much is wanted. The cost of production is the test for them as to how much they will give.³¹ The value of the gold, then, is determined between the demand of the banker for reserves, and the answer of the miner as to how much profit he can realize. Since the state of credit is what influences the former, it is easy to perceive what a large part it plays in fixing the value of gold.

The influences noted, the action of gold coming in momentarily and stimulating credit, that of credit, in a little longer period, raising prices and calling for a larger amount of gold, are at work all the time. There is no single moment when only credit is asking for gold, nor one when only gold is encouraging credit. These forces have been assumed as operating in isolation, in order clearly to separate their duties. As a matter of fact, they are active, in different degrees, at the same time, and the two elements of the problem, credit and gold, are exerting their different short- and long-time effects, largely simultaneously, but in varying degree, sometimes more and sometimes less energetically.

§ 4. The way is now cleared for the preliminary discussion of the topic of deferred payments, which is one of importance in connection with that of the standard of value, since further development of the latter is affected by conclusions as to the former. There are two points of view that may be assumed in any economic discussion. The one is the purely scientific; by this is meant that which attempts to establish what is being done—what the facts are in the case. The other is the moral; it is the more popular and involves economic discussion only on the

The discus-
sion of de-
ferred pay-
ments is
popularly
obscured by a
falsely ethical
tone, which
is quite un-
necessary,

³¹ For the principle of this analysis of value, cf. S. M. Macvane, "The Austrian Theory of Value," *Annals of the American Academy*, vol. IX, Nov., 1893.

side—what ought to be done, what are the moral obligations under the circumstances?

The former point of view, the objective scientific, is also rather the individualistic. It asserts that while money is something certified to, as to weight and fineness, by government authority, every man must determine upon his own responsibility what he will do with it, how much he wants to take or is willing to give; and that this freedom of individual action is just as important in the case of a "debt" as it is in the case of the cash sale of goods.

And again, the objectivity of the former *should* lead over into an objective treatment of the second or moral point of view. Is there not some *rule enforced by society* by which the relation of the debtor to the creditor is practically and organically regulated, in case the government leaves them free to determine between themselves, in their private capacity, how much money is to be paid at the future date? Has *society*, as such, not set up any rule *positively and outside of legislation*? Here, again, the appeal would run to individualistic economy. If society has set up such a rule, it must work out somehow through the relations of individuals with each other, for the hypothesis is that the government does not interfere.

The unobjective point of view concerning the moral situation is socialistic or at least legislative. It says, in the first place, that "society" should guarantee to the debtor and to the creditor that in the future, whenever debt is incurred, only the same value shall be paid back again; that "society" should look out for it, no matter how many mistakes of calculation an individual may make, in contracting, say, to pay \$1,000 in the future, and should guarantee to him, that he have only to pay back the value, not the dollars, of the loan that he received. Then, the field is opened wide for surmise, of what does pure value consist, in and of itself? That is an obstacle that the persons who set in circulation these moral conundrums little suspect, for they too commonly suppose the nature of value to be self-evident. The attempt to demonstrate that men organically strive to return equal

and accompanied by idealistic demands incapable of fulfilment.

values leads again, by a roundabout route, into an objective, individualistic inquiry as to exactly what the facts are.

§ 5. The pointed questions come up, then, as to whether it is possible to find out exactly what the same value consists in, as between today and a year from now; and whether there is any means of imposing that value upon the creditor or debtor, depending upon which way prices have moved. And again, if there *is*, whether it be right or politic to do so. When popular orators demand the return of the same value to the creditor, they are asking a question almost as simple as when an infant asks who God is, or how the world was created. The study of money, so far, has been kept free from ethics, but cannot avoid it to the end.

The usual assumption has been that a fall in prices is injurious to the debtor because, in selling his goods, he now receives in return less than their former price, whereas he has covenanted to pay a sum of money calculated at the earlier level of prices. He can no longer rely on an income at the old higher prices, from which to pay his creditor. Fisher, however, points out in this connection, that in practice that is not what he covenants to do. If prices are falling, the creditor and debtor both know it,³² and consequently adjust the rate of interest, if not the prices, in view of the future. The complaint, right at the beginning, usually makes a false assumption, or one too narrow to give a fair basis for argument. The statement that the debtor contracts to pay back on the basis of the market prices in force when he sold, is false; he could not carry on business for any length of time if he did so.

If gold is appreciating, and it therefore pays to hoard it, men generally overlook, in arguments for inflation, that a hoarded dollar's worth of goods as surely brings loss as a hoarded dollar of gold brings gain. Consequently, the appreciation of the standard does not have that effect in discouraging trade which is assumed, because persons who hold goods want to get rid of them as soon as possible in order to avoid the loss from holding

³² *Appreciation and Interest*, ch. I. The consequences of unequal foresight of debtor and creditor are stated, ch. X, § 13.

The situation can be cleared up only by an objective and individualistic inquiry.

The debtor does not contract in ignorance of the expected fluctuations of the value of money,

nor can hoarding proceed so far as to cause scarcity of money.

them, as much as persons who have gold want to hold on to it. In a little while, the very cheapening of goods anticipates the gain that is to be derived from hoarding, so that the latter no longer offers a profitable alternative. The future rise in gold is soon anticipated. A very moderate amount taken out of circulation tends to throw prices down to a point where all of the expected gain is anticipated.³³ The moral questions involved in the relation of debtor and creditor are as easily presented for discussion on one as another of the hypotheses as to the causes of price fluctuation. It is little wonder, then, that the wrong but tangible hypothesis of a metallic cause has usually been assumed.

§ 6. From the dawn of history credit has been circulated.³⁴ Bills of exchange have always been employed between highly developed commercial states and probably at earlier epochs than generally supposed. Nevertheless, for domestic exchanges, the world relied more in early periods upon money, since goods were not so generally manufactured under definite contracts as they are now. As time went on, more and more valuable money material was used, because more goods were to be exchanged. The market was widening. Primitive people used hides, cattle, tea, salt in pressed cubes; the Romans advanced to iron, copper, and silver; but it is not until modern times that gold has been used as the standard of value. Silver has been the legal means of payment, until within this century, throughout all the more civilized history of mankind. That fact has naturally furnished one of the chief arguments of bimetallists: that the introduction of gold has been something very recent, and was the result of a conspiracy. To say that it was class legislation might not be so far amiss, since most legislation arises in that way. But all class legislation is not necessarily bad. The fact is, probably, that the use of gold has come in because the merchandise values and the contracts to be dealt in have become so large; and because, again,

Evolution
of money
material.

³³ Fisher, *op. cit.*, ch. VI.

³⁴ As to the antiquity of the recognized credit documents, copies of Egyptian-Hebrew contracts, bills of indebtedness, bills of sale are to be found in Sachau, *Publication der Generalverwaltung der königlichen Museen* (Berlin), Leipzig, 1911. These instruments belong to the fifth century B. C.

of the disuse of money as a means of exchange, gold being used only for reserve in the banks. It became more convenient to use gold than anything else, because it is that precious metal which contains the most value in the smallest bulk. It can be transported for least expense. It can be stored in the smallest vault. Inquiry of the express companies discloses the fact that it costs less to ship a hundred dollars in gold than in silver. Probably these are the chief reasons why the former is become the standard of value.

As to the interference of the government with that standard, it is true that during almost all history, after nations became organized territorial states, there have been mints, and the authorities have issued the metallic money. In early times, there was a selfish interest on their part. They hoarded large treasures, as do oriental potentates today; and for war especially, they needed to have something that would buy supplies at once. They found that the precious metals were best suited for that purpose; and it was a convenient thing for them to control the mintage.

Another selfish motive was that, by jealously guarding the monopoly of the mint, it was possible for them to debase the coin. A pound of money was originally a pound avoirdupois of silver. The French franc or the Italian lira was a pound of silver. But that is become now a little coin worth about twenty cents. The reason for the shrinkage is that unscrupulous rulers have gradually decreased the quantity of metal in the coin. They have borrowed of their subjects, and have then paid them back in a piece of a less value, but bearing the same name.

§7. That is bad enough; but it is worse for the government to decree that where a *private* debt is owed, the debtor is not required to pay the previously stipulated measure of usual or customary concrete goods or metal, but may substitute another designated thing or measure. That laxity is a necessary corollary of debasement. Legal tender and bimetallic legislation involve essentially the same exercise of questionable sovereignty by the state. No government, probably, has ever gone so far as to say that the debtor and creditor should not freely contract with each other to repay in any unusual material they choose—in bushels

Monopoly by governments of the manufacture of money was not meant, originally, as a benefit to commerce.

The question now arises, how far should governments stand between debtor and creditor?

of corn, or in gold³⁵ for instance. In other words, subjects have always been permitted to "contract themselves out" of the habitual legal tender material of repayment. Governments have, however, presumed to say that the debtor could take liberties with the creditor to the extent of paying him in either silver or gold at a fixed ratio *in case there was no express contract to the contrary*.

Modern legislation upon creditor's and debtor's relations may be said to have begun in 1774, when the English government enacted that silver should only be a legal tender, by count of coins, up to twenty-five pounds; but that was in case there was no contract between the debtor and creditor. And in 1798 it stopped coining silver altogether. These steps towards a gold basis were rendered necessary by the broadening of the modern market. Thus was enacted what practice had already consecrated. Shortly before that, in 1797, the suspension of specie payments by the Bank of England on account of the Napoleonic wars occurred. Resumption was not effected until 1821, a longer period of "restriction" than was endured in the United States after the Civil War. After 1821, gold came into general circulation in England as a result of previous legislation.

In France it was attempted, in 1785, by the French minister Calonne, to bring the two metals simultaneously into circulation, when the ratio of 15½ to 1 was adopted; and that legislation was reënacted under the Directorate of 1803, so that gold was brought into circulation under the bimetallic law in France, at the end of the last century, and under the monometallic law, in England, at almost the same time.

The United States adopted bimetalism at the founding of the government. Gold came more and more into use, and finally by the "crime of 1873," it was made the sole standard, more than half a century later than in England; and about the same time that standard was introduced into numerous other countries. It is now in course of adoption in the Orient; so that it may at

The English government early changed outright from the silver to the gold standard.

The French and United States governments introduced gold into the standard on a parity with silver.

Recently, the movement towards the single gold standard is become world-wide.

³⁵In 1890 it was common in the Eastern states of the United States to draw up contracts with a clause for payment in gold, in view of the prevalent fear of the country "going over to silver."

last be said that in this epoch of the greatest wealth, the most valuable of the available metals is the universally adopted standard.

Those who object to the gold standard say that this course of history indicates that the original and real money of mankind is silver. It is one thing to illustrate principles from history, but quite a different thing to praise the revival of specific practices of a former age. Arguments of that sort, however, can do little harm. If the facts are known, every person is at liberty to draw his own conclusions.

§ 8. A metallic standard is, then, more or less a matter of usage. Governments have not directly prescribed what their subjects and citizens should employ as a means of exchange, but simply what they should use as a "legal tender," in other words, in those most usual payments of debt where there is an absence of previous special agreement between the parties as to the material to be applied; or what they should devote to the payment of taxes. In making regulations of this nature, governments do but enact for special cases the employment of the material already generally consecrated by usage. If, however, the enactment precede the general usage, the latter might then be a consequence of the former in the sense that the absence of the practice of special agreements would show that men were contented to use generally what had been prescribed only for the possibly exceptional cases. But it is not only through the legislature that government can mould the law of legal tender. The courts are equally efficacious to that end. If a debtor fails to pay his creditor, the latter goes to the judges and in substance, asks them in what shall the debt be paid? But they follow the custom of merchants, or of the locality. Hence, the legal-tender regulation silently enacted by society and embedded in custom is sanctioned through the bench.

Bimetallism steps outside of the bounds set by custom. It has its origin not so much in juridical decrees as in attempts on the part of parliaments to enact remedial legislation. It says that the debtor shall be entitled to pay the creditor, in either gold or silver, at a fixed ratio, say 16 to 1. If a certain amount by

Legislation on the standard of value is a good example of the principle that many laws are merely a codification of usage.

Legislators make a mistake when they feel warranted in

weight of gold is a dollar, then sixteen times that weight of silver is a dollar for purpose of payment at the option of the debtor, in the absence of previous agreement between debtor and creditor as to the material to be used. This provision has been so far justified by experience as it was a fact that gold and silver were both used in circulation. But it has not been customary to use gold or silver indifferently for the payment of debts of all sizes. As the world has grown wealthier, gold is become necessarily the standard, simply because a standard metal has been needed, to be held in the reserves of banks and to be transported from country to country, which should contain a considerable value in small compass. Gold has been found best adapted to that purpose. Silver has continued to be used for small transactions, for small change; and not inappropriately, in the "silver campaigns," the silver dollar has been called "the poor man's dollar."

International bankers have during much of the world's history maintained gold payment. Silver, in modern times, has not been good tender in international exchange, and yet there is no super-government lording over others to enact what shall be legal means of absolution. The practice is by the consensus of the international credit organism. American domestic banks have also preferred to pay gold on balances. That was well illustrated in 1882. The New York Clearing House Association had passed a statute to that effect. The law of 1882, continuing the charter of the United States Banks, specifically stated that such a provision of the statutes of a clearing house was illegal. A law of 1878 had enacted that silver was as much a legal tender as gold, and therefore it was not permissible that a clearing house, whose membership was moreover composed of banks chartered by the United States, should prohibit its use in payment. The clearing house rescinded the regulation, but went on receiving and giving gold on balances as before. Not even a "gentleman's agreement" to that effect was required. In California, during the Civil War, the gold standard was sustained in spite of the suspension of specie payments throughout the rest of the United

passing a bimetallic law simply because both silver and gold are in use. Contemporaneous usage is not necessarily substitutional usage.

Illustrations of usage making a standard.

States. These episodes show a preference on the part of persons having large transactions for dealing in the more valuable money.

§9. Bimetallism, therefore, is an attempt to *force men to use, in transactions of all sizes*, the overvalued metal, whereas they may prefer to use it only in the smaller. It is founded, in theory, upon a simple principle of political economy, which is called by Professor Marshall, "composite supply."³⁶ Whenever a certain utility prominently emerges and is practiced in the way of consumption of goods, or of their application to production, various tools or materials will be offered, and that one, of course, will be adopted which is the cheapest. It happens frequently, that when that utility has been satisfied by one material up to a certain point, then the price of the latter will rise so that another, in view of the price at which it is sold, will be the more economical, and so on. There can thus be a list of materials that will simultaneously satisfy a given want.

This is also the principle of bimetallism: one material is brought in to satisfy the utility or service of exchange, when another becomes too expensive. This, be it noted, is an organic law which does not arise from legislation. If a man feed oats to his horse and the price of that grain rises, he will then feed it corn, perhaps; and if corn thereupon also rises, he will feed barley, and so on. He substitutes one article of fodder after another so as to produce the most economical result, taking into account the different technical efficiencies of oats, corn, and barley, for the nourishment of horses. If silver went down in the absence of any bimetallic legislation whatsoever, it would nevertheless be found that there were classes in the community which chose to use more of it, and that quite considerable groups could use it or gold indifferently, preferring, perhaps, gold, but able to get along with the white metal very well; just as the horse might thrive better on oats, but could still do good work on a corn diet.

Moreover, if silver declined in value, certain nations accustomed to its use would absorb more. This consumption would

³⁶ *Principles of Economics*, fifth ed., bk. V, ch. VI, § 5.

Bimetallism is founded upon the principle of composite supply,

which manifests itself organically and without assistance from legislative enactment.

have the natural tendency to stop its fall in the market by the application of spontaneous bimetallism; and hence, after it had satisfied a certain demand, no further would arise, because it would then have ceased to be the shorter road to the utility for which it had been wanted. It has been pointed out by Sir Robert Giffen,³⁷ that this natural bimetallism has always been in operation. Different nations, according to their grade of civilization, or other circumstances and opportunities, prefer different standards. Thus a market for both metals is offered, which is more active for the one momentarily cheaper.

Bimetallic legislation intensifies the process of substituting the cheaper means of payment.

The passage of a bimetallic enactment is plausibly scientific; it is calculated to intensify the natural bimetallic law, by creating a wider margin of common cases where silver or gold may indifferently be demanded. If the enactment says that debts may be paid in the ratio of 16 to 1, no matter what they be, whether incurred at the grocery store or on a contract for railroad supplies, the field for the substitution of the falling metal is increased; for, if silver drops so that it requires 17 ounces to buy one of gold in the open market, then every debtor, whether he be the railroad or the citizen with the account at the grocer's, will buy silver with his gold at the rate of 17 to one, and then will pay his creditors with 16 ounces of silver and have one ounce left as profit. The effect of debtors' general seeking of silver for payment in this way is to stop the fall of silver quicker than would have been the case under the natural bimetallism already described.

§ 10. Apart from any question of the honesty or dishonesty of such a proceeding—of the prescribing that a metal shall be used for payment of debts which was not the intended and customary standard of value and means of payment in the business environment in which the debt was contracted—there are other drawbacks to the bimetallic proposition. An objection ordinarily made is that there can be practically no such thing as bimetallism in the sense that the two metals circulate at the same time. That claim is but partly valid. The bimetallic hypothesis is that one

Bimetallic legislation is of no efficacy after the dearer metal has been driven out; and, in the meanwhile, it cannot be said that both metals circulate.

³⁷ *The Case Against Bimetallism.*

or the other metal is always falling and consequently being substituted. If the circumstances are such that that can always occur, then they are favorable to bimetallic legislation. But, in that case, one metal at a time is actively influencing the standard—*it is the standard* while the other is passive. Such a standard would be better described as “alternating monometallism.” If the one is going out of circulation and the other coming in, the expectations from the bimetallic law are satisfied: it is working so far as it can. But it is inexact to say that both metals are *equally* in circulation. However, when substitution has proceeded so far that there is but one metal left, the law ceases to work, for as soon as the dearer metal has been wholly excluded, there remains no more material for the legislative law to operate upon, and the state or society is thrown back upon the *international working of the organic law of bimetallicism*.

In the enactment of bimetallicism, it is expected that, at the start, the legislators will adjust the ratio at a mean position, the one metal neither too high nor too low with respect to the other; so that if one of them falls in the bullion market and the other is, consequently, being excluded from circulation, the operation of the legislative law will arrest the fall and thus stop the second from being further disused. Thereupon the law contemplates that, perhaps, a fall takes place in the latter, which would partially drive the first in turn out of circulation. Thus there would be a perpetual seesaw, the legislative law acting always as a means of preventing such violent fluctuations in the fall of whichever of the two metals happens for the moment to be in circulation, as would otherwise have taken place.

But the hypothesis of alternate fall of the two metals is unwarranted. During the history of the precious metals, it has been silver that has been predominantly falling; there has been no dependable seesaw backwards and forwards. It is true that the gold discoveries of the forties caused the yellow metal to fall in value, and that the decline of silver followed in the seventies. Bimetallists have assumed that this special case was to be the general rule; at least their theory involves that assumption. It was the deep drop in the value of silver after the first

Bimetallism presupposes an alternate fall of the two metals;

but they may not be so accommodating.

lowering in the value of gold, that broke up the European bimetallic union of 1866; not that the "Latin Union" was formally dissolved, but the participating nations simply ceased to coin the depreciating silver. They found that they were losing their gold, and did not relish a possibly permanent cheapening of their money and degradation to the then existing monetary standard of India, the Orient, and Mexico.

With the exception of the single seesaw mentioned, there was no other of any importance within the last century and the production of silver was enormous. Recently the production of gold has more than kept pace with advancing wealth and industry: but silver has failed to rise.³⁸ It is futile to predict what is going to happen: whether silver or gold is destined to go down at any particular future time. Hence it is useless to pass a law on the supposition that the metals are fated to be produced in such an alternating ratio as to cause the much admired seesaw in their exchange values. In order to make bimetallism work continuously, and to prevent it from becoming simply silver or gold monometallism, it would be necessary to enact a new ratio from time to time, for "silver legislation" enormously stimulated the supply of silver. Instead of 16 to 1, the nations would need to adopt now the ratio of 38 to 1.

§ 11. It has been claimed, in political campaigns, that there would be no difficulty in keeping up the price of silver, under bimetallism, because there would be an "unlimited" demand³⁹ for it. Literal acceptance of the claim is out of the question. It is cited in order to point out a certain self-contradiction in the professed desire of some advocates of bimetallism to maintain a high level of prices. In the background of the consciousness of a number of them, in the "silver" campaigns, was a desire to raise the level of prices, and really the same hallucination was at the bottom of their notions as in greenbackism or inflationism.

No unlimited
demand for
silver possible.

³⁸ There was a temporary rise, 1903-1906, in the gold value of silver. E. W. Kemmerer, "The Recent Rise in the Price of Silver and Some of its Monetary Consequences," *Quarterly Journal of Economics*, vol. XXVI, No. 2, Feb., 1912.

³⁹ *Coin's Financial School*, p. 27.

That was not the idea of men like Chancellor Andrews or Professor Ross, or others who sincerely desired to introduce an impartial standard. The political support of bimetallism, however, came either from the mine owners, who were interested in selling what they were producing, or from the populace which desired cheap money. The selfish interests of these two naturally inimical classes could hardly coincide. It was a solemn jest for the politician to promise that bimetallism would raise the value of silver, when he, in almost the same breath, preached the doctrine of high prices and really expected that it would carry the country over to a silver standard. Behind the main campaign sober citizens perceived an unsound theory which was willing to go to the length of government paper money inflation.

The desire to raise prices inconsistent with the desire to raise the price of silver.

The politician tried to show (probably this was for the benefit of the mine owners) that the value of silver could not fall below a certain point. "Coin" Harvey said, in effect, "The government can keep the price of cavalry horses at \$60 apiece," with the further implication: "just as long as vendors offer horses to the army."⁴⁰ But a rise in the value of silver, if it were the standard, would mean a fall in prices, just as surely as a rise in the price of cavalry horses would be followed by a restriction of the number accepted. This argument, however, suited the mine owners on the Hill in Denver. That its consequences were, on their own platform, evil to the "debtor class," did not occur to them.

§ 12. Another argument advanced in favor of bimetallism is that it would "steady the foreign exchanges." But in the first place, most of the fluctuations of prices are to be ascribed to the state of credit; and for this and other causes, the deviation from par of foreign exchange is also due to credit influence and not to changes in the value of the metallic standard. But it has been said that the silver standard nations have an advantage in international trade. The fall of the value of silver has stimulated exports enormously, if certain theorists are to be believed. Silver orators asserted that if the United States wanted to stimulate

Bimetallism would have little effect in steadying the foreign exchanges, for the fluctuations are largely due to credit.

⁴⁰ This is not quoted: but cf. *Financial School*, p. 47.

exports, the best thing to do was to go over to that standard. Since 1875 it can hardly be said that American exports have needed stimulus. Such weakness as they may have shown at that time has been tenfold repaired subsequently, without the aid of bimetallism. The export argument for the silver standard was made in the several countries of the western world. The English silver party claimed that Englishmen were prevented from exporting their cotton from Lancashire to Bombay by the fall of the value of silver and by the consequent fall of silver in ratio to gold.

The people of the silver standard nation, said these reformers, being accustomed to a certain range of prices in silver, satisfy its wants for commodities at the usual level until some outer force enters tending to alter it. In a country like India, the price of commodities is fixed by immemorial usage: so much for a pair of shoes since the time of Buddha. In the United States, also, the farmer is possessed with the idea that wheat is "worth" a dollar a bushel, and is not satisfied unless he receives for it something that is called a "dollar." In the outer market, somewhere outside of the silver-using country of customary prices, as Professor Nicholson, himself a bimetallist, has shown,⁴¹ the ratio of silver to gold may be assumed to be so disturbed that it takes more silver than formerly to exchange for a given amount of gold. This means that in the silver-using country, in order to bring the ratio between silver and gold to the same proportion as prevails in the outer market, the stock of silver must be increased. And in a gold-using country, for the same reason, the amount of gold must be decreased. Because gold has gone up in value with respect to silver, there will be a tendency to export it for purchase of silver until equilibrium is restored. Nicholson's formula means simply that the ratio having been altered in favor of gold in the outer market, in order to make the ratio in the silver-using country the same, silver must be imported. It is obtained in exchange for exported goods. A typical proprietor of gold in the gold standard country exports it to buy silver in

When two nations have different standards, the effect on foreign exchange of a change in their relative value is soon exhausted.

How equilibrium is disturbed and restored.

⁴¹ J. Shield Nicholson, *Money and Monetary Problems*, case II, p. 367.

the outer market, takes that into the silver country, buys goods with it, and brings them back to the gold country. That is what took place in the British Empire. India being a silver standard country, the fall in the ratio in the outer market forced an export movement of commodities in the international markets from that country, in order to obtain silver and thus adjust the domestic ratio of silver to gold, while a corresponding export of gold from England occurred with which to buy silver in European money centers.

If the United States went over to the silver basis by the bimetallic road, it would be put in the same position as India; its exports would be momentarily encouraged. The same thing has happened in the relations between Germany and France, countries that have adhered to the gold standard, and the grain-producing and poor-standard lands surrounding them—Italy, Austria, and Russia. The grain producers of Germany have complained bitterly at the encouragement to importation of grain from Austria and Russia, on account of the falling *valuta* or standard of the latter two nations.

If the falling standard is due to bimetallic legislation, which makes those states adopting it a "dumping ground for silver," the stimulus to their exports cannot last forever, partly because the fall is anticipated by higher prices (that prevents loss), and partly because the national ratio of the metals is soon equalized with the external ratio, and hence the premium ceases. It is a question whether it is worth while for England and the United States to go over to a bimetallic standard, simply in order to obtain a temporary benefit during the period of adjustment. Bimetallic legislation hastens the levelling process; otherwise the stimulus to exports of goods would last longer.

§ 13. Again, the fall in the rate of foreign exchange is, to some extent, compensated to the exporter from the gold standard country, by the fact that he anticipates the amount of the decline that is going to take place in silver in the immediate future. Not being able to raise the price of the goods in silver, he adopts the immemorial weapon of competition in countries of customary prices, of degrading their quality. This resource failing, he

Who loses from fall of silver (see also § 14)?

spreads the loss over his partners in social production—the manufacturers; laborers, and other prior producers. The fall of silver in the eighties was not entirely foreseen or discounted. The miscalculation was as to the fall of silver rather than as to the rise of gold, and affected the English exporter more than the world's agriculturist, who had repeated on a gigantic scale the time-worn error of overproduction. The following citation indicates the severity of the shock:

Until lately the Indian banks were ready to buy the bills of their customers in advance; but the fall in silver of late has been so rapid and so extreme that the banks are afraid to continue this kind of business, and consequently the whole risk of a further fall is thrown upon the exporters. The exporters are less able to calculate the chances of the market in this particular respect than the Indian banks, and therefore are bewildered and paralyzed by the uncertainty in which they are placed.⁴²

Bankers take the risk of the exchanges on their own shoulders.

A quotation could not have been made intended to be more adverse to the gold standard and more favorable to bimetallism than the above. At the same time, the statement is plain that ordinarily the banks dealing in Indian exchange were able to diminish loss to Lancashire exporters in cotton goods to India, arising from the appreciation of gold. The case contemplated in the citation is admittedly an extraordinary one.

Treating the relations between France and Germany, on the one hand, and Russia, Austria, and other countries with a more fluctuating and uncertain standard, on the other, a similar potency in the foreign bankers for steadying the exchanges is noted by Raffalovich: "We must not lose sight of the fact that, to a certain degree, exchange operations for a time more or less remote are a thing that is essentially legitimate and useful. *They allow the business man to make himself sure of the rate of exchange*⁴³ at which he will pay or cash in the product of his importations or of his exportations."⁴⁴

§ 14. On the other hand, while momentarily the exportation of goods in the Indian trade will be encouraged from the country

⁴² *Saturday Review*, vol. LX, p. 449.

⁴³ The italics are the writer's.

⁴⁴ Raffalovich, *Marché financier*, 1892, p. 85.

that has the falling standard, viz. India, that country suffers loss in the markets of the world by accepting payment in the metal which is falling in value. If the American importer, under the silver standard (assuming that it would be the result of bimetallism in the United States) is content to accept all the while from his domestic customer a silver dollar and not the gold dollar at all, he will soon find that the former will buy only fifty cents' worth, when offered in exchange for imports from England. The bimetallic scheme, then, would persuade the American workman to accept lower wages, while he is plausibly entertained with the idea that he is receiving higher. That is the way it worked in India. The ryot, drawing his traditional wage, was unconsciously receiving a rupee which was sinking in the world market. Some statesmen insisted that the American workman should imitate his neighbor, the Mexican peon, in adopting the silver standard dollar; but Mexico has since changed to gold. It is better to settle up "on the spot" losses incidental to fluctuating values of national standards, to suffer any little inconveniences that may accrue to the exporter, and to hasten the adjustment of the local standard to the world-ratio, rather than to invite a perhaps permanent degradation.

There was more smoke than fire in the alarm of the English. This has been pointed out by Lord Farrer,⁴⁵ who says, from statistical data, that during all the time that the Lancashire cotton manufacturers were complaining, exports to India were increasing more rapidly than ever before in the history of that international trade. The trouble was that they were selling at very low prices, but threw the blame of small profits entirely upon the gold standard. They could easily have found other things to accuse. That was the particular time when cotton manufactories were being widely introduced into countries whose industries had not hitherto been modernized, and consequently England was suffering the most severe competition, not from the silver standard, but from that most legitimate source, foreign enterprise. The Continent altogether, at that time, had reached

⁴⁵ *Studies in Currency*, p. 217.

The gain on foreign exchange to the cheap-standard nation is out-balanced by its loss in the international goods market.

English exports to India were growing in the face of the complaints of the Lancashire manufacturers.

a point where it possessed nearly as many looms as England, which was ceasing to be the "workshop of the world." What is more, cotton manufactories were starting in India, where they have existed ever since in spite of a vicious excise imposed at the instance of the English manufacturers. Was not all that enough to put the price down to the Lancashire manufacturer? He could not control the number of establishments on the Continent; but he partially limited those in India, and then appealed further to remedial legislation, hoping through it to manipulate the international exchanges to his benefit. Frequently remedial legislation is but war of economic interests, which strive to compensate themselves for financial losses from unsuccessful competition by taxation of the community. It is, at bottom, undignified alms-taking. The great advantage of legislation over war is that it is a peaceable means of extortion. English bimetallism was the long abandoned protectionism reappearing under a new garb.

Again, Farrer points out, instead of the balance of trade being in favor of India, it was in favor of England. The former country is ruled by English proconsuls with the assistance of a large civil service and with the support of an army partly composed of Englishmen. They are paid out of taxation of natives; and when the Britons break down in health or reach the age limit, they are pensioned and return to Europe to spend their old age in England, or in the cheaper, quiet, residence towns of the Continent. But India still continues to pay their allowances, which count as a perpetual unfavorable balance. The Hindoos, however, having an especial fondness for silver, do not send it on balance, but goods, raw cotton, straw plait, spices, and spasmodically, wheat, and other products. Consequently the importation of silver into India is not in any way caused by the balance of payment being in favor of that country, for it is the other way, but because the Hindoos prefer silver as an import. It is an additional expense to them to guard the silver they have while procuring more to flow in, for what they appear to gain on the exchanges they lose again in the diminished purchasing power of their exports in foreign commodities.

One reason that is alleged for their great demand for silver is

England was suffering from international competition.

their habit of hoarding. The gold standard has not been introduced into India because the banking system is undeveloped. The people stick to their ancient customs. They obtain all the silver they can to bury, or to make into bracelets, earrings, and other jewelry, to be worn by their wives. The amount that is absorbed in that way is very large. Hence, it is evident that whatever that possession does export must be in the shape of goods, and that it must send a large amount in order to pay the tribute to England. It is also plain that bimetallism could not change that state of affairs. It is determined, on the one hand, by India being a vassal state, and on the other, by this unquenchable thirst for the precious metals, but principally for silver. Both determinants, especially the latter, are corollaries of an arrested civilization.

§ 15. A word remains to be said about the significance of India Council bills, in connection with the proposition to introduce bimetallism into England, the central market for precious metals. The English colony of India is ruled by a board situated in London through the governor-general in India. The finances of the colony are managed from London by it. Naturally, the India Council has very large payments to make in England for causes already mentioned, viz., supplies and the pensions of retired and returned civil service servants. In order to raise this money, its funds being situated in India, it is obliged to sell bills of exchange upon the branch of the Indian treasury located there. The produce of these bills will represent, in part, then, the tribute that India pays to England, that is, the surplus of imports into England in the trade with that colony.

But the sale of the bills has a restrictive effect on the trade in silver. The people of India cherishing the preference noted above for the precious metals before English commodities, and especially for silver rather than gold, the cheapness of exchange thus freely offered by the India Council not only puts a premium on importation into England from India, but also erects a dam, as it were, to prevent the outflow of silver thither. For if exchange in this form were not available for the English importers, they would be obliged to pay their debts in silver, and the Indian

India had an unfavorable balance of payments in its trade with England, and naturally preferred to pay in goods;

in fact, it could hardly do otherwise.

India Council bills represent roughly the tribute of India,

which by offsetting the debts of England, which would cause the export of silver, lower its value in England.

exporters, instead of cashing Council bills at the government finance office in Calcutta or Bombay, would import silver from England. The Council bills decrease the demand for silver and tend still further to lower its value in England.⁴⁶

§ 16. Monometallists have therefore said that the "disturbance" in Indian exchange was not due to the fact that there existed a silver standard in India and a gold one in England at the same time, but was caused by the surplus of imports into England being paid for in India Council bills. There seems to be considerable force in the argument; which reduces the inconvenience to be laid to the door merely of the difference in the standards and the effect of the claim that great loss would be obviated by the introduction of bimetallism. For under bimetallism there would still be the same sale of India Council bills as under monometallism; also, there would be the same preference of the Indian people for the precious metals, the same burying of them in the ground, or carrying of them about in the form of ornaments, and the same excess of exports from India to England over exports from England into India. Those facts apparently account for the principal disturbances of the exchanges; for, in the long run, so much as is due to the fluctuation in the relative exchange value of the different standards must reach speedy compensation, since the ratio between the metals in the two countries must be brought to the same level with that in the world's market. The continual fall of English bills on India, however, was due to the silver standard there, and has been arrested by the gradual introduction of the gold standard since the closing of the India mint to silver in 1893.

§ 17. Other materialistic standards, which, however, have not entered an experimental stage like the test given to bimetallism by the Latin Union, are symmetrical, joint-metallic, tabular, and multiple. Symmetallism has no less a sponsor than Professor Alfred Marshall. A practical suggestion from such a source should receive the attention which it deserves. He proposed

The Council bills, the hoarding of gold and silver in India, the excess of tribute from India, are independent of the standard of value, and could not be affected by any change of standard.

⁴⁶ J. Laurence Laughlin, *History of Bimetallism in the United States*, p. 132; Edward Atkinson, "Report . . . upon the Present Status of Bimetallism in Europe," 50th Congress, 1st session, Senate Exec. Doc. 34, chart VI.

that debts be paid legally with a coin which should consist of gold and silver united physically at a certain ratio by weight—say 32 to 1. The coin would therefore be “a picture of gold in a frame of silver.” The result would be that, in paying a debt, one would be compelled to use the two metals in that proportion. The principle differs considerably from that of bimetallism. The latter strives, as the market for, say silver, goes down, to create a new market for it so as to raise its value again; and, also, to restrict the market for gold, so as to lower its value in order to bring the two to a “parity” again. This operation may go on until the silver, in the case supposed, is entirely excluded from the circulation.

Under symmetallism, there is no attempt to influence the market, there is no substitution of silver for gold. The equilibration or the making up for fluctuation here consists simply in assuring the public that there is in the coin an amount of the appreciating metal which, to start with, was equal in value to that of the depreciating. The composite coin will obtain the advantage of the appreciation of the gold in the open market as well as suffer the disadvantage of the depreciation of the silver. Moreover, as the depreciating metal becomes cheaper, it will exert continually less effect upon the value of the standard, because its value in the composite standard coin is proportionally less, and a diminution of the smaller part makes progressively a less contraction in the value of the whole. So bimetallism attempts to maintain the standard by acting upon the market, but symmetallism by fixing the ratio physically in a self-compensating bimetallic coin. It is not necessary that such a coin should circulate any more than coins do now. It could be held as reserve in the banks and paper money could be “based” upon it.

§ 18. Joint-metallism is the invention of Mr. Anson Phelps Stokes.⁴⁷ He proposed that the government mint silver and gold coins in an exact ratio by weight, so that it be always possible to make a payment in one coin in multiples by weight of the other. Without change in the coinage, therefore, one ounce of gold

⁴⁷ *Joint Metallism.*

Symmetallism, or gold and silver in one coin, avoids the principle of substitution in favor of that of compensation.

Joint-metallism allows of easy change of ratio.

could be paid as the equivalent of 16 ounces or of 32 ounces of silver: that would depend upon legislation from time to time. His proposition is thus to have a ready means of changing the ratio. It is a sensible annex to symmetallism which, like bimetallism, will make necessary an occasional change of ratio and a readjustment and tearing-up of the relations of creditor and debtor every now and then, in order to afford the promised benefits during the intervening periods. Stokes desires, then, that debts be authorized to be paid in a certain proportion of the two metals, only, instead of their being fixed together in a standard coin, it is simply to be decreed that the debtor shall pay a certain proportion of his debt in silver and a certain proportion in gold, by weight. The deviation of this plan from the preceding is in details only.

§ 19. Unlike bimetallism, the tabular standard does not attempt to interfere with the existing circulating medium; it asserts the theory that fluctuations in its value will be found by ascertaining the variation in the average price of commodities. In other words, instead of proposing a new kind of money, it offers an official rule, by which all men may measure the extent of fluctuation. When the change in the average of general prices is calculated, then the fluctuation that is due to the standard is established. They are identical. Such is the assumption. Its correctness will be discussed in the next chapter. The next step is to affect debts, since it is supposed that the *injustice has been measured*. By decree a corresponding change is made in the amount of coin that can be demanded in payment of outstanding debts at any given time. Thus is repaired the "injustice" that may have been done to debtor or creditor through fluctuation of commodities over against coin. That really in this way unsteadiness in *prices* due to the circulating medium has been exactly corrected to the *individual* debtor or creditor is more than doubtful. It is equally doubtful whether the variation in *values* has been scientifically adjusted.

§ 20. The multiple standard is arrived at by a supplementary change in the tabular. It goes a step further and proposes that the circulating medium itself be contracted or expanded by the

The tabular standard assumes that commodities always preserve the same utility.

Under the multiple standard, the government attempts to keep prices at a level by direct regulation of the circulating medium.

government according as prices have expanded or contracted, so that it will not be necessary to issue a decree from time to time, saying that debts due to-day are to be scaled down one-half of one per cent., or must be augmented by two per cent. Instead of that, the government will itself create a mechanism by which the circulating medium will vary in volume, so that each dollar will correspond to the same amount of commodities at one date as at another, and debtors will continue to pay, as now, according to the tenor of the contract. That, thought Professor J. A. Smith,⁴⁸ could be done by putting a slight premium in gold or silver on the notes when the currency should be inflated, as shown by the fluctuation in the official price of the standard list of commodities, and by buying in silver or gold, by putting a premium upon it in notes, when prices should fall too low and it should be thought necessary to "inject" more of the paper money into the circulation. Smith admits that his system would necessitate some taxation, as the people at large would have to be charged, to make up to the persons who held money that was depreciated, the amount of the loss, whether it were the precious metal that fell, or the paper money which would be issued by the government under the proposed régime. In case of a perfect seesaw, the stock held over would regain its value, and taxation would not be required.

§ 21. A commodity standard is necessarily made up of a limited list of articles. Each variety, admitted on Smith's proposition, will be so "weighted" as to influence the average in proportion to the amount of it produced and dealt in. Such an average is supposed to indicate the change of prices more fairly than an unweighted one, because it "weights" the price of each commodity with a coefficient proportional to the number of transactions that take place in it. Regarded, however, from an individualistic point of view, the expedient of weighting fails to afford complete satisfaction. It disposes after a fashion of the individual commodity; but the individual man claims attention, also. Each article will affect the average according to the amount of it dealt

⁴⁸ "The Multiple Standard," *Annals of the American Academy*, March, 1896.

The commodity or multiple standard favors the commodities that are chosen to form part of it.

in, and consequently the standard will be adjusted favorably to a corporation or monopolist in a staple, so as to correct the aberrations in his product more than in anybody else's. That (natural or artificial) person will be able to calculate on a more steady level of prices. Reformers of the multiple-standard school are playing into the hands of monopolists. If "A" deal in a commodity which is not included at all in the list—and, *ex hypothesi*, $\frac{99}{1000}$ of the sales in a society are of articles of that description—it has had no influence at all upon the level of prices. He must reconcile himself to the fiction that, by means of a standard composed of a limited number of *other* commodities, exactly the fallibility that is occasioned by the circulating medium has been squeezed out of *all* prices—the price of *his* included. No dealer, the price of whose wares had sunk, would admit the justice of having his bills payable raised by one per cent., because the "standard" had risen. When men realized how a tabular standard worked, it would provoke an insurrection; the multiple standard is more crafty than the tabular, but could not permanently quiet complaint.

The interference of the Tabular-Standard Bureau is unsatisfactory in that it is *ex post facto*. It announces: "The fluctuation in prices *has been* so and so." That is, of course, for the benefit of the debtor, and increases uncertainty rather than decreases it for all others. But when a dealer makes his calculations, he is concerned about what it *is going to be*. He is not only a debtor or a creditor or both, but is engaged in legitimate speculation, buying and selling goods and manufacturing them. If this "reform" is instituted, he is not permitted undisturbed to calculate what is to be the divergence either in the level of prices or in the price of his wares, but must also conjecture what change the *government experts, following a statutory and hence artificial rule of computation, will have agreed has occurred* in prices, and how that may affect dealings in his commodity. Instead of simplifying business it will complicate it enormously. The whole community then will be gambling upon what the government bureau is going to announce has been the gain or loss.

Government interference increases uncertainty for all dealers.

The plain citizen would rather take his risk under free competi-

tion. If he loses, he takes the blame cheerfully on himself. Only in case of widespread disaster do scheme-makers obtain a hearing. He does not like to feel that some official is continually standing over him with a club to decide, apparently arbitrarily, how much his property is to be scaled up or down. Injustice is usually the result where officials attempt to interfere with the metes and bounds that have been created by evolution and competition. It is a mistake to suppose that an average correction of price fluctuation can be worked out, which is destined exactly to deal out justice through the whole business community. Exaggerated organic changes are a bad thing, undoubtedly, but the cure by theoretical rule is apt to be disastrous.

Artificially level or unvarying prices cannot guarantee profits and hence prevent crises.

§ 22. Another argument advanced in favor of this proposed standard is that crises are the result of fluctuation in prices, and, if the latter can be eliminated, the former will be also. That notion is a pure case of taking the symptom for the cause. If there is speculation and enterprise, there always will be inflation of some sort; if it can be apparently banished by superficial, topical treatment, it is bound to break out in some other place; if it is removed by a lotion from the surface of the body, it will gather internally; if the amount of the circulating medium is artificially regulated, the expansion will take place in deposits, for no one has yet had the inspiration to regulate deposits. But why be so anxious to suppress price fluctuations? They are among the most healthful phenomena; if not extreme, they are the organic sign of progress. Common sense shows that good times and high prices go together, and low prices go with bad times. Prices are a mere symptom of what is going on, and entire disappearance of it would testify that the community was in a state of economic coma.

The international tabular standard is the gold-exchange standard applied to the tabular.

§ 23. Another corollary of the tabular standard is the proposal to apply to it the idea of the "gold-exchange standard" by international agreement. The gold-exchange standard may be stated as the practical measure to which American and English colonial authorities and Mexico have resorted of keeping the currency at par with that of gold countries by buying and selling foreign exchange. Professor Irving Fisher would have the

tabular standard adopted internationally, and some nation chosen as common agent to maintain the circulation at par with it by purchase of coin with bullion when prices are too high, or sale, when they are too low. The objections offered by Professor O. M. W. Sprague⁴⁹ are: (1) that the prices of other countries would not be quickly readjusted to the level of the corrected prices of the fiscal agent country; (2) that the artificial process "would seem to subject the business of the world to a never-ending succession of abrupt changes"; (3) "once limit the coinage of gold, and the value of gold coin and gold bullion may diverge to an indefinite extent."

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III

JUSTICE FOR DEBTORS

§ I. The term "idealistic" may be employed to designate the attempts to find out what is an equal return by the debtor to the creditor—a species of speculation instigated by persons who are not satisfied either with existing monetary laws and practices or with the propositions for materialistic standards. They say that, as a matter of experience, an equal amount of commodities does not spell the same value: the return to the creditor of an amount of money which will buy the same number of bushels of corn and wheat, pounds of iron, ounces of pepper, spring bonnets, and quarts of milk is not a scientifically correct restitution. For it may happen that, if Easter Sunday is a rainy day, spring bonnets will not have as much value as if the weather were good; if there is a good crop of potatoes, they will not have the utility, economically speaking, that they would if the crop were bad; the effort to produce a ton of iron, five years from now, may be one-half what it is to-day; and the substitution in the arts of aluminum for iron may render the latter metal ineligible as a member of the standard group. Consequently, the selected heap of commodities will bear very different *value* at the due date from what it had when the debt was contracted. These considerations, exaggerated a little for the sake of argument, seem to weaken every proposition for bimetallism, or other materialistic means of allaying recurrent insurrections of the debtor class by an intelligent operation upon the circulation.

At first thought, it would appear that an investigation into the

The commodity standard must be abandoned in the search for one which will insure an "equal return."

restitution of pure values might be looked upon as less objective than one into a return of actual commodities. In one sense this is true for it is patently a more psychological study than is the latter case. It is no longer a question as to what articles are most appropriate to include in the standard. The assumption is out of court that they can replace the lost utilities. Now the inquiry is shifted to general considerations of economic psychology: *values* of goods fluctuate in *men's minds*. The psychological point of view predominantly involves investigation into typical valuation; and that is justification for the term "idealistic."

§ 2. A study of this sort is concerned with estimates reaching into the future. What value will producers and consumers obtain from commodities in the future as compared with the present? The inquiry involves, further, the methods of so expanding or contracting the circulating medium at will that it command a correspondingly less or greater number of commodities per dollar according as the value of commodities, taken dollarwise, has gone up or down. A rational solution is possible with the help of the modern doctrine of value known as the "marginal" theory.

A debt or deferred payment is presumably a contract for an exchange of present against an equal amount of future utilities. They must be equal to buyer and seller, separately: but the estimates of the two parties are not necessarily comparable. This hypothesis of enlightened foresight is the only possible basis for a theory. The utilities themselves, unavoidably, are objectively embodied in goods. The enjoyment and estimation of utilities take place in the minds of the persons who are producing or consuming them. The modern view of valuation states, at the outset, that goods are primarily not estimated in the market according to the efforts in producing them. Notwithstanding all the elaboration of the doctrine of cost of production, it is very likely true that it is, in many cases, much harder to find the amount of labor or effort that has gone into producing a given good than it is to measure the satisfaction which it affords. The history of the former reaches back, perhaps for years, into an account of the materials that were used to produce the materials. Consequently, while the statement of the cost-of-pro-

The question is partly one of the future value of commodities, and also one of expressing or objectifying value in commodities.

duction theory of value is simple, the tracing of it out in actual life is extremely complex. The marginal theory of value, however, enables one to arrive at a measure from the side of the consumer, who is a person more easily reached⁵⁰ than the producer.

§ 3. The "marginal" theory simply states that any mass of goods is valued in proportion to the utility of the last portion consumed. If one suppose that equal doses⁵¹ of goods are offered for consumption, he must note a diminishing satisfaction from each successive one, until satiation, all lapse of time or other variation in circumstances being eliminated from consideration. What a man is willing to give, under these conditions, for any dose, is what he will give for the last, because any other, if taken last, would have given the same satisfaction as the one actually selected. It does not make any difference which comes last—one is bound to be last; and since any one may be last, he will not pay for it more than he would for the last. The utility of the last dose, therefore, and the paying for the producing of it, establish the value for all. It is not necessary to go so far as to maintain that it measures the price for the case when all the doses are united into one and sold in a lump. In that case one big dose is substituted for the preëxisting little ones, and it is estimated and valued anew; but the marginal fixes the value of any and every dose, if the commodity is sold dosewise. What valuation means, then, is that all of the items that make up the stock of the market are appreciated according to the utility of the last dose, which is simply a more refined way of saying that value stands in some inverse ratio to the quantity of goods thrown on the market. The marginal law states the relation of supply to value more exactly.

The *total value* in a stock of goods is the number of doses multiplied by the utility of the last dose. There is no more

⁵⁰ The difficulty in the case of the cost-of-production theory and of its various forms has been well brought out by Professor H. J. Davenport in his book *Value and Distribution*.

⁵¹ The term "dose" has been consecrated by Mill, Marshall, and other writers.

The marginal utility theory of values affords a basis for a psychological and idealistic comparison of the respective welfare of debtor and creditor.

value left in the stock, because, if any one unspecified dose is sold from it, that will not produce any more utility than any other. What it will afford will be only just the utility of the last. Consequently, the value of all of the stock, under this definition of value, is a rectangle equal to the product of the utility of the last dose by the number of doses, which is equivalent to saying, by the physical mass of the stock. Creditors expect to receive back, in the future, the same total value with which they have parted. They want to be restored to their former situation where they can sell any one of the doses, and, presumably, in the open market, all of them, and receive back the same original value.

for it affords a practicable way for it to arrive at the total value of a stock of goods.

If at a future date, goods become easier to produce and hence more abundant, a dose of goods will have a smaller marginal utility. How many goods must be received or given in order to restore the same value that was loaned? The creditor must demand back enough so that, if he multiply their marginal utility by their quantity, he will come into possession of an area of utility equal to the surface of value he parted with in the first place. The required number of new units is found by dividing the original value-area by the new marginal utility. Thus is obtained the number of goods receivable in the future as competent to replace subjective value parted with. It is evident, under the realization of these circumstances, that prices must have fallen in proportion to the decrease in the marginal utility of goods. In that case, the same amount of money returned will buy more goods in that ratio.⁵²

Consequently, prices should fluctuate as marginal values fluctuate.

§ 4. Before examination of the questions involved in the counter-proposition of the total utility theory, it may be well to pause a moment to attempt to obtain the exact relation of a discussion of this sort to social conclusions. How far is a standard of this sort social and not merely an imagined case of individual valuation? And also what is the helpfulness of such a psychological standard in solving the question of justice? It is oppor-

The question of deferred payments essentially one of values.

⁵² This theory of price restitution is due to the late Dr. S. S. Merriam, "The Theory of Final Utility in its Relation to Money and the Standard of Deferred Payments," *Annals of the American Academy*, vol. III.

A psychological standard is of social and ethical importance.

tune to recall the distinction between the materialistic and the idealistic standards: the former seek a mechanism whereby equal commodities, not in value, but in their material form, may be returned to the creditor; the latter would vindicate an integrity of valuation, and, while less materialistic, are really more objective, for the reason that the topic under consideration is essentially not material quantities, but mental, namely, values. "Objective" means what is: in other words, the psychological standard must, if the reasoning be correct, come closer to a statement of actual facts, for the end sought is essentially mental, the satisfaction of wants.

Practically, anticipated change in value of principal is compensated either through interest or through prices.

§ 5. Fisher proved that contracting parties could theoretically always adjust the rate of interest so as to compensate for fluctuations in the value in the commodity in which they were interested as consumers, dealers, or producers, and thus make an arrangement whereby both or all would be satisfied that the amount paid back was equal to the debt contracted. The analysis, however, only went to the point of equalizing the differences between capitals, including all possible expected fluctuations of capital values.⁵³ But it had been shown by Böhm-Bawerk⁵⁴ that *interest* is equal to the difference between the present and expected values of capital.

If interest, then, evens the difference between present and future values, and also between the valuations of different concrete capitals, what claim remains for further compensation to debtor or creditor? What injustice can be done to them that has not already been guarded against in the market for goods and for capital? Interest is, then, the difference between the present and the future valuation of capital. If utility of the principal suffers modification through the vicissitudes or ravages of time, that divergence, also, is compensated by a corresponding one in the rate of interest. It is, therefore, on this theory not necessary that the level of prices should be changed artificially, since such a change would interfere with the equalization already privately

⁵³ *Appreciation and Interest.*

⁵⁴ *Positive Theory of Capital.*

or individually agreed upon as to compensation by way of interest.

However, it is doubtless true that parties to contracts do agree to the repayment, at times, of a larger or smaller *principal in money*, in the expectation that the purchasing power of money will be smaller or larger. In this case, also, interference of government by manipulation of prices is injurious. The theory of deferred payment, founded upon utilities, has generally been worked out upon the supposition that the compensation for the fluctuation in the value of commodities should be made through the principal rather than through interest. The discussion, then, of the ideal standard may be understood upon the hypothesis that the whole of the compensation is attributed to the principal, whereas Fisher's analysis, driven to its logical conclusion, teaches that it is effected through interest alone. In both theories it is necessary to make the hypothesis of knowledge beforehand, only in the one case the principal is made to increase or decrease, and in the other, the interest.

§ 6. The marginal utility theory, as already described, requires that the same total value be returned by the debtor as that which he received from the creditor. The valuation contemplated was either that of the debtor or creditor or one privately agreed upon between them. The question immediately arises, is an individual debtor free to make a contract which will allow him to return exactly the same value? The rate of interest is more or less of a social matter, and the level of prices is essentially so. On the assumption that the compensation on account of principal is to be made through a change in the level of prices, it is quite evident that the reasoning does not hold good for an individual who varies from a type or social standard. If the market value of commodities is expected to decrease, the understanding must also be that that decrease will hold good for all persons, and equally for them all. If potatoes are expected to be cheaper, it must also be understood that the cheapness will reduce the utility of potatoes equally to the rich and to the poor, and, indeed, for persons of all appetites. Hence, the reasoning holds rather for a typical instance, and, as usual in such discussion, it reduces itself

The theory of deferred payments simplified by the hypothesis of compensation by prices alone.

Under this hypothesis, freedom of individual action must be reconciled with the further hypothesis of the "economic man."

to the case of the "economic man." All persons in the society must be supposed of similar tastes and similarly affected by more abundant production, in order that an increase in the amount of money should affect all equally, and thus justly prevent creditors from sequestering the whole advantage accruing to society from overflowing income. The reasoning can only be typical in so far as its object is professedly to discuss the propriety of general enactments which shall work uniformly. The analysis is discouraging to attempts of this nature, since it discloses only too plainly that all men are not equal and that legislative and administrative measures cannot bring justice to each individual.

§7. In passing, it is worth while to advert to the question, whether there does not exist in the economic organism an automatic provision whereby "money" will be so increased as to attain to the contemplated object of raising prices sufficiently to dispense a share of the benefit of increased production of goods to the typical debtor. In the previous discussion of the standard of value, it has appeared that a fall in prices stimulates the production of gold and tends therefore to increase the amount of money and hence ultimately to raise prices again. Here is found, perhaps, the germ of an organic system which may ultimately become completely satisfactory, but at present the stimulation to the production of gold from low prices does not work rapidly enough to remedy the supposed evil. The slowness may conceal social benefits in other directions from that which comports with the question of the standard. Aberration of the argument on this account will be perceived to share the fallibility of all human analysis. The stimulation, be it noted, comes from the effect of the low prices. There could be none unless there were antecedent low prices. They must previously have existed long enough to have caused the supposed injury to the debtor before they can yield profit to the gold industry, and through it ultimately benefit the debtor again. Moreover, fluctuation in prices is primarily due to the state of credit, which is more or less independent of the supplies of gold; in other words, prices may conceivably be reduced sufficiently to injure the debtor, on a rising supply of gold, as happened subsequently to 1885. Nevertheless, in the

Trade depression, of the typical sort, stimulates the supply of gold, but not in time to prevent debtor's loss. If the depression continues the stimulus will not last.

long run, depressions in trade and their accompanying low prices, by exerting a stimulating effect upon the supply of gold, tend ultimately to restore prices to the higher level; and this influence is to be thanked for the general rule that that supply is, and always has been, in the main, adequate to the needs of the reserves.

The social process of equalizing future with present is objective. The conduct of the "economic man" is representative of what is generally taking place: it is a fact that debtors at large make their contracts, not with reference to the return of an equal quantity of goods, but with an eye single to a value surplus commonly called profit. They are at liberty to stipulate for an equal value, accounted to principal or to principal and interest. The ordinary way of making usurious bank loans is for the debtor to acknowledge a larger principal than the one that he receives. But actual (commodity) usury may exist in the absence of any interest. If the money to be returned in the future will have a greater purchasing power, the restitution of a smaller principal than that received might be perfectly "just"; or a rise of the market rate of interest during the life of a private debt may cause the creditor finally to lose a part of his (commodity) principal.

§ 8. Is legislation desirable to effect justice between creditor and debtor? Is it true that continual injustice is done because the general level of prices fluctuates? It has sufficiently appeared that a large latitude exists within which debtor and creditor may make mutual arrangements. At the same time, a certain pressure may be exerted, sometimes to the advantage of one party and sometimes to that of the other, in the making of the bargain. It is popularly assumed, indeed, that the pressure is always from the side of the creditor, but that is not so. In times of expansion, contrary to popular prepossession, it is the creditor who is seeking to loan his money; the coercion is then directed toward him from the borrower, who exacts a low rate of interest and pockets the benefit that comes from the rise in prices or what other profits may attend the borrowing of money in the time of active speculation.

The ethics of the situation may be tested by the hypothesis of a debtor and creditor who have calculated entirely erroneously as to the course of prices, and as to the fluctuation of the commodity in which the debtor, for instance, deals. The consequence of this miscalculation is that one of the parties to the bargain is grievously prejudiced and that the other receives an unexpected acquisition of wealth. The naïve theory, which undoubtedly is present in the mind of the man who votes for cheap money, and of the professor who offers a fine-spun system of keeping the price level even, is that, under the circumstances, a grave injustice has been done.

However, in sound morality, nothing of the sort is true. Men are social beings, living under the institutions of society, and free to act within certain limits. The rate of interest, undoubtedly, is a prevailing fact, and so is the price of potatoes. A dealer in potatoes can neither obtain nor be forced to give a price departing widely from what is known as the "market price." When potatoes are \$1.00 a bushel, the housekeeper doubtless feels aggrieved; but that does not constitute a case of injustice, from any social point of view. The potatoes were cultivated under circumstances that were looked upon as fair. Their high price was probably due to a short crop. If the railroad company has suddenly put up the tariff on potatoes, that may be unfair; but, in the absence of some anomaly of this sort, there is nothing unjust in the mere fact that the rise in potatoes will curtail the expenditure of the housekeeper in other directions.

But that is the proposition of the "reformer" in the matter of prices. According to him the fluctuation of prices, in and of itself, is unfair. But a law of the legislature scaling debts is also unfair, because it applies indiscriminately to all debtors and creditors, no matter what their relative conditions; and still more because it is an arbitrary interference with the calculations that men make, both socially and individually. The rate of interest, it is true, individuals cannot affect to a very great extent, as it is a result of social action, namely, of the competition of lenders and borrowers in the money market. Each has had his share in this contest, and the organic law of society is that each must

A mistake of an individual, in a matter under organic control of society, cannot be twisted into a case of injustice.

take the consequences along with the rest. Such a rate of interest, therefore, is not unfair, because it is the result of normal competition, just the same as the price of potatoes.

§ 9. The existing level of prices, on the hypothesis of an entire absence of government money and government financiering of the circulation, is a "natural" matter, the consequence of competition. It is mainly the effect exerted by the creation of credit upon the amount of the deposits in the banks, and, through a tardy process, of the supplies of gold from the mines. In view of all the circumstances, is the level created in this way unfair? Is there anything inequitable in the leaving of individual business men to their own devices in those eminently natural situations which may accrue to them from variable readings of the price-gauge which are the results of the manifold influences the description of which has been attempted in a different connection?⁵⁵ Is there any more reason why a *deus ex machina* should intervene to relieve the debtor from the evil effects of miscalculation, whether wholly his own or partly that of his competitors, than why the same providence should make good to the housewife for the high price of potatoes, or to the creditor for the low rate of interest? Happily, in modern times, administrative interference in these directions is less common than it was in earlier ages. The inappropriateness of the attempt of government to act in a sweeping manner upon an economic category like rent, interest, wages, or prices, is well shown by a *reductio ad absurdum*; any change of price-level, made at a given moment, will exactly compensate for losses, if at all, only to those debtors or creditors who entered into their contracts at a given date; for those of an earlier or later date, somebody will gain and somebody will lose more than the law intended.

§ 10. It is not surprising that general schemes for financial regeneration should appear from time to time. The chief school of the human race, as found in the checks with experience,

The level of prices, like the rate of interest, is an organic phenomenon, and cannot possibly be altered, or affected, except by way of protection against the "friendly" legislation.

⁵⁵ Vilfredo Pareto, *Cours d'économie politique*, II, 297, cited with approval by Maurice Patron, *The Bank of France*, 115 (Publications of the U. S. Monetary Commission), to the effect that the idea of suppressing crises, the concomitant of fall of prices, is unscientific.

is always administering to attempts to remedy adverse conditions by changing phenomena instead of by going to the source of miscalculation in ignorance and in defective power of connecting cause with effect. Similar mistakes, in principle, are made in matters affecting material phenomena, especially in hygiene; but there the demonstration of the error is tangible. It can be proved by laboratory experiments that men cannot "enrich" their blood by drinking red wine.

But society is never left free to go its own way. There is always agitation on foot to remedy its pains (which are bad enough) by some opiate. The evil is real, the remedy almost always contains a measure of truth, but the degree of applicability is seldom accurately calculated. Free trade contains the most appropriateness of any of these schemes, for it proposes to abandon regulation, but in a domain where it is so customary as to be almost an organic part of the social customs. Few persons outside of England are disposed to deny that it has worked fairly well in that country, with the modifications it has admitted there. Laws against "futures" and "options" seem to have given little satisfaction in the countries that have adopted them. Government money has always been economically considered a dismal failure, except that occasionally it has been of temporary convenience to government itself looked upon as a corporation which is interested in its own welfare apart from that of society.

Single tax, government guaranty of the price of wheat, export bounties on wheat, free silver, abolition of usury, regulation of freight and passenger rates, anti-trust laws, government ownership, eight-hour action, homestead and preëmption privileges, pure food inspection, guaranty of bank deposits, child-labor regulation, prohibition—all of these and many other propositions, a part of them already enacted into law, contain different elements of usefulness, but are too frequently offered as panaceas, and, in the forms enacted, may do more harm than good. When the reformer is brought face to face with legislation, he is luckily compelled to take into consideration circumstances which he had not previously duly weighed or publicly acknowledged. State accident insurance, for instance, is provided for by taxation, not

of wealth generally but principally of the workmen themselves, directly, and indirectly through their employers. This inevitable source of funds is certainly no recommendation of the law to the former. A badly drawn child-labor law may harm children and their parents more than it benefits them. A danger from remedial legislation is either that the benefits are miscalculated or imaginary, so that enactments really do directly more evil than good, or that it interferes with the *energy of society*, as a creative advancing organism. However, it is by errors of this sort that the human race receives some of its most important lessons and comes gradually to know itself. Legislation punctuates the eternal discussion which, in academic shades, in parliaments, in the pulpit, in the press, and in a thousand other places, makes for human progress. The duty of society to succor the wrecks of social struggle is imperative and direct; but the very natural desire to "render competition milder" is misleading. There is reason to believe that progress elevates competition if it does not otherwise render it less acute.

§ II. Competition, then, is better calculated to do justice than unripe legislation, for it is difficult to interfere with systematic social activities in such a way as to treat individuals justly, since interference unavoidably will be sweeping, arbitrary, and by general rule not adapted to individual cases. The law cannot lend that "helping hand" which is the blessing of private benevolence. Undoubtedly misfortune is happening to business men all of the time. Miscalculations are constantly made, and often by intelligent persons. Many fail who have made no errors of judgment, but have been swept off their feet by "general disaster"—by conditions over which they could have had no control, or which they could have avoided, perhaps, only by retiring cowardly from the field. Even trustees, with their trust funds, are not infrequently innocently involved.

However, it is not to be inferred that the machinery of business will be brought to a standstill by misguided legislation, nor does opposition to the latter in the slightest degree involve hard-heartedness or denial of the virtues of magnanimity. But the question of charity is clearly a distinct one from that of legisla-

It is almost impossible to enact reform legislation that does not cover cases not intended,

or to combine
charity with
competition.
To observe
high business
standards is
not charity; it
is honesty.

tion. It leads into a broader and a better field than that of economics. The lesson of the foregoing considerations is that charity should not be confounded with competition. It cannot be promoted by sweeping interference with the organic laws of trade. General eleemosynary measures may undoubtedly be taken in favor of the unfortunate, but they should be such as supplement and do not interfere with that open contest which is industry and finance. Estimable persons meet with disaster or slowly sink under burdens to which they are unequal. They generally are and best may be assisted privately by friends. For the large classes that have no friends, uniform measures of relief may be, and often are taken, fortunately, both by public and by private benevolence. The first concern of the charity worker, however, is to find the needs of *each individual case*. The principal precaution in the exercise of charity should be that it should not interfere with the active world of business competition. For instance, the raising of laborers' wages by public grant, directly or indirectly, has been found to be injurious equally to laborers and to employers.

§ 12. So much for the academic discussion as to whether, without reference to the rate of interest, justice is done to debtor and creditor by a return of equal utilities of some sort involving a simple operation upon the level of prices. The analysis of the obligation in a case of deferred payment has been correctly made, so far as to say that the debtor in obedience to social, organic law does tend to return to the creditor an equal value—equal because privately and "freely" agreed upon, and also equal because deeply influenced by the normal calculations of the "economic man."

Right on this point, however, a difference of opinion arose at the time of the "free-silver campaigns" when discussion was rife among economists, as well as politicians, upon the question of debtors' rights. Naturally, students who were most closely in sympathy with the bimetalists desired such an issue of theoretical discussion as would *raise* prices most, while those who stood more closely in touch with the gold-standard contention tried to work out a plan which should raise prices as *little* as

The analysis
of justice be-
tween debtor
and creditor,
so far, affirms
that the ques-
tion is one of
utilities rather
than of goods.

possible. But the question of theory is itself entirely independent of political motives, and must be looked upon as any other piece of abstract reasoning. The principle of the return of *equal values* has already been sufficiently extended. In opposition, appeared the theory of the return of *equal utilities*, by which was meant *total utility* and not marginal utility.

Three points were made by Professor Edward A. Ross in his clever presentation of the theory of total utility.⁵⁶ First, the marginal theory applies to a case of imputed value alone. The ordinary case of the market is one of imputed value. The whole of a stock of goods is valued according to the price obtained by the last amount sold; that price is "imputed" to the whole. But where the whole of the stock itself is parted with in one sale, according to Ross, the case is not one of imputed value; but the whole utility of the stock must be compensated. Undoubtedly this statement is correct: it may be intelligently interpreted. The application alone is disputed. The Dakota farmer would charge more per cord for his whole wood pile than for a single cord sold out of it. The owner of a well would be glad to give away a cup of water, but perhaps would not sell the well for all the money in the world, and so on. The second point was that the utility to the consumer is different from that to the buyer: that will be shown to be practically the first point in another guise. The third was that legislation calculated to remedy a mistaken level of prices should be founded upon the supposition that society was parting with its goods as a whole.

In the first point, illustrated by the sale of cord-wood, the question really raised is as to whether the marginal principle applies to all cases of sale. The question of deferred payments is undoubtedly one of sale. In the extreme case put of parting with the whole stock at once, it is true that the sale would not be made for less than the total utility of the article sold, but this is not a denial of the application of the marginal theory. That theory states that the valuation of the total amount of goods is set by the marginal quantity or "dose." In the illustrations

The case for the total utility standard is defended by a denial of imputation of value, by an emphasis on consumer's rent, and by the assumption that society sells its goods in a lump.

As to imputation; there can be none in absence of division; but the case is still marginal.

⁵⁶ "Total-Utility Standard of Deferred Payments," *Annals of the American Academy*, vol. IV.

adduced, the whole quantity becomes of itself the marginal dose, and hence the total utility becomes the marginal utility. No difference is left between the total and marginal utility. They are identified. But confusing illustrations do not destroy a principle. And if it were possible to imagine anybody selling the whole of the present goods of the world in return for the whole of those expected to be produced at a future time, it would make little difference whether he desired to receive back again the total utility of present goods or not. He would, from the nature of the case, be constrained to estimate equal returns from marginal utility, precisely as if he were buying peaches in a market. The marginal theory, in its operation, depends partly upon the extent to which the article brought into the market for sale is subdivided. If it is not capable of subdivision, then there is no such thing as total utility, as distinguished from marginal. To offer a case of non-subdivision as a refutation of the marginal theory is inconclusive.

The second argument is that the passage of goods from the market into consumption raises their "value" enormously. This loose use of the term "value" is decidedly misleading. Value is a very distinct thing from utility; it is a technical conception, an estimate based upon the quantity of an article that is supplied, or supposed to be available. Total utility, on the other hand, is quite unmodified by additional supplies, that is to say, *ex hypothesi*, "late" doses do not affect the utility of "early" doses. Total utility includes consumer's rent, which is a sum due to the absolute utility of the goods; it comprises the rent and value of the goods together. It can in no way be influenced by further supply of goods except as they may increase it arbitrarily or adventitiously. Hence, it cannot enter into a trade of any sort; it is not a business or mercantile conception.

§ 13. Evidently, the brunt of the discussion turns upon the third point, that the principle of deferred payments depends upon the valuing of society's stock of goods as a whole. If it is true that society itself, in this way, exchanges the whole of present for the whole of future goods, it must do so as a trader, upon marginal principles: but it does not. The question is not

As to consumer's rent; that is not a question of quantity; but value and sale are essentially questions of quantity.

And as to selling goods in a lump—no amount of sociological anthropomorphism could possibly make us imagine such a thing!

one between society and society, but between debtors and creditors. The creditor parts with a certain total value. He contracts to receive back again an equal total value, that is to say, what at the time of contract is expected to be such. The parties take into account present and future wants and provisions for want. The contract is made with open eyes as to what the utilities may be to consumers; but the marginal method of computation is the only one that gives a rate per unit of goods, and hence is the only one that can be used. The burden is upon the advocates of the total-utility standard to show that business can be carried on in any other way, and that the conduct of it according to the type presented by the marginal theory is immoral or unfairly competitive. Hence the conclusion that the modification of prices must be such as to return equal *values* as between debtors and creditors. If all goods were taken away from society, as the total-utility hypothesis supposes, then their utility would be infinite! Their cost would remain the same, but, as the stock was reduced towards zero, their price would rise towards infinity; hence, *on the hypothesis of trade en bloc, no ratio of values could possibly be established between present and future goods.*

But present and future goods *are* valued in the transactions of individual debtors and creditors. The sum of those transactions takes into view not all future goods that may be created, but only such as are proposed to be founded on borrowed money; and not all present goods, but only such as a loan of present money will buy. The sale of present goods for future goods, in other words, the loan, is made precisely on the same principle as a present sale for money, namely, by the valuation of the goods exchanged according to their marginal utility. The fact that the marginal utility of future goods is less than that of present, apart from any other motives that may affect their valuation, is an additional reason why it is unavoidable that the marginal method should be applied in this sort of a deferred exchange of goods.⁵⁷ Hence, if the marginal principle of valuation be

⁵⁷ Alfred Marshall, *Principles of Economics*, fifth ed., book III, ch. V, paragraphs 3 and 4.

accepted at all, it must be employed in this instance. The chief weakness of the total utility argument is that it professes to accept the marginal utility theory of value in general, but that it rejects it in this instance, and thereby commits the confusion of tongue of calling the total-utility theory a process of valuation.⁵⁸

§ 14. The refinements discussed, quite naturally, do not enter into the more popular agitation of the question of justice in deferred payments. In argumentation, more is heard concerning the commodity and the labor standards. The former of these has already received treatment in the chapter on materialistic standards; but the latter, while in itself, perhaps, material, has paved the way to the conception embodied in the idealistic standards.

The thought that equal amounts of labor are always worth the same has long been a favorite one. Adam Smith showed a decided liking for it. The trouble is, however, that no two men's labors correspond in sacrifice, even if they do in force; and then, what was the use of talking about equal labor, unless it was embodied in objective goods? Hence, the more refined utility theories of value.

The search for an objective measure was for a long time directed by rule of thumb. Exact writers are not exact in all things, for at best they must assume many premises neither previously subjected to scientific test nor within the scope of immediate inquiry. But it would seem as though a labor measure was within the field of economic theory. The best Smith could do was to guess that a bushel of wheat always is worth the same amount of labor. "Equal quantities of labor will at distant times be purchased more nearly with equal quantities of corn, the subsistence of the labourer, than with equal quantities of gold and silver, or perhaps of any other commodity."⁵⁹

Manifestly this is a rough estimate and is worth as much now

⁵⁸ See the the writer's article, "Values Positive and Relative," in the *Annals of the American Academy*, vol. IX, p. 100, *sqq.*, for further objections.

⁵⁹ *Wealth of Nations*, bk. I, p. 35 (Bohn's ed.).

Idealistic theories of deferred payments are derived from the marginal theory of value, but that, in turn, is the natural outcome of the old labor standard of value.

as when he wrote it. But in vulgar appreciation such a phrase becomes first a by-word and then a superstition. Recently, in the United States, the popular fetich has embraced silver, and it has been firmly believed that a bushel of wheat ought always to be worth a silver dollar, doubtless with crude implication that they both cost or were worth the same amount of labor.

A similar difficulty is experienced in attempting to compare the returns of the soil in different places and times: returns to what? Naturally, to equal outlays. But to find a measure of equal outlays is almost impossible.⁶⁰

Finally, the doctrine of imputation has pointed to a more satisfactory solution. It has gradually, but dimly, been perceived that justice, humanly considered, consists in allowing men to work out their own destiny. If the contracting parties freely agree to impute satisfactoriness and finality to their arrangement, they should be held to abide by the same.

In theory, it is easy to conceive circumstances under which the parties can be held to have made this imputation. If they will give just so much of one commodity (it might be money) for just so much of another, that is proof that, *for the purposes of the trade*, they are satisfied to treat each part of each stock as equal to every other part of the same stock, and thus also as equal to the exertion of sacrifice involved in bringing forth the stock and all its equal parts; and further, that they regard aliquot parts of the two stocks exchanged as equal. Certainty is arrived at in the matter by seeking exactly how much of one stock the owner is *finally* willing to surrender for a given quantity of the other, under all the circumstances of want and provision for want, including exertions, sacrifices, labor, alternative opportunities, and whatever may enter into his feelings or calculations. Thus ample scope is given for the motives arising from the labor involved, without the necessity of stopping to consider whether one man's labor is abstractly equal to that of another, by the simple expedient of accepting the imputation which the parties have made in their contract of sale or exchange—that, for *eco-*

⁶⁰ Cf. Marshall, *Principles*, fifth ed., bk. IV, ch. III, § 8.

conomic purposes, they mutually accept their labor, whether for more or less hours, respectively, as equal in value.

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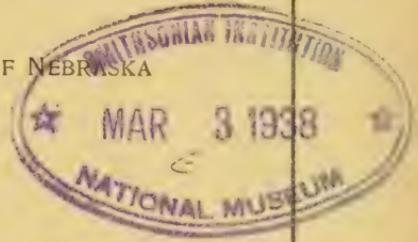
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BY LAURA B. PFEIFFER

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I

INTRODUCTION

Viewed not simply as an incident in the history of the legislative assembly but regarded in the light of the larger movement of the revolution, the uprising of the 20th of June, 1792, becomes one of the turning points in the long struggle of an arbitrary monarch against the attempt of the French people to establish and

maintain a constitution. The struggle began with the opening of the States-General in 1789, and ended with the suspension of the king on August 10, 1792.

During the early part of this struggle the French people looked upon Louis XVI as their "*bon roi*," in sympathy with the movement for the regeneration of France. Although at first attributing his resistance to their proposed reforms, and his delay in approving them to the influence of his entourage, they gradually became convinced that both Louis XVI and Marie Antoinette were playing a dishonest part. When it was fully recognized that the king and queen were unwilling to accept the constitution in good faith their overthrow became inevitable.¹

Whatever the idea of the king and his ministry may have been in calling the States-General, there was a firm conviction in the minds of the French people that the main purpose of the assembly was to be the reformation of the government. This is evident from the *cahiers*.² A study of these documents makes clear that all classes—clergy, nobility, and the third estate—were insistent in the demand for a constitution. It was probably not the intention of the government that the people should interpret the letter of convocation³ in this definite way, but considered in the light of the *Résultat du conseil* of December 27, 1788, such an interpretation does not seem to lack justification.⁴

To grasp fully the significance of the struggle, it must be understood that the third estate, representing the overwhelming majority of the French people, considered themselves instructed by their constituents to put an end to arbitrary power and to establish equality before the law. While the accomplishment of the latter end might bring them into conflict with the clergy and the nobility, there seemed to be no sufficient reason why they should not receive the support of the king. For centuries he had been regarded as

¹ Fling, "The Oath of the Tennis Court," 2, 3.

² Champion, *La France d'après les cahiers de 1789*, chap. III.

³ Brette, *Recueil de documents relatifs à la convocation des états-généraux de 1789*, I, 64-66.

⁴ *Moniteur*, Introduction, 509; Aulard, *Etudes et leçons*, 4 série (1893), 41-51.

the adversary of the privileged orders and it was but natural that the third estate should look to him for leadership in this crisis. Consequently they expected on his part at least a policy of non-resistance to their efforts.

But in this expectation they were disappointed. If in the discussion of the verification of credentials at the opening of the States-General, the king did not at first declare himself in favor of either party, it was possible for the third estate to interpret his action in a manner favorable to their cause. But when, under the stress of circumstances, the third estate declared itself national assembly, the king abandoned his neutral policy, attempted to undo the work of the third estate and threw his protection over the privileged classes. This reactionary policy at length brought the king into conflict with the representatives of the majority of the French people.⁵

That the struggle was one for supremacy between the old conception of "divine right" and the new conception of the sovereignty of the people became clear on the 20th of June, 1789. Under pretext of preparing the hall of the third estate for the meeting of the royal session, called for June 22, the doors were closed to the deputies on the 20th. Moved by the fear that the government intended to dissolve the assembly, the commons took the famous oath of the tennis court in which they proclaimed that no one had the right to suspend their sessions. The resolution affirmed that nothing could prevent the assembly "from continuing its deliberations in whatsoever place it might establish itself." "At that moment, the assembly asserted its supremacy over the royal authority, virtually declaring itself supreme in the state."⁶

Ignoring this declaration, the king persisted in his reactionary policy and on June 23 held the royal session. Here he annulled the previous decrees of the assembly and promised a series of reforms including most of the demands of the *cahiers*, but he made no satisfactory concessions concerning the organization and periodical meetings of the States-General, thus making the fulfil-

⁵ Christophelsmeier, "The First Revolutionary Step."

⁶ Fling, "The Oath of the Tennis Court," 7, 8.

ment of his promises depend upon his own good will. Undismayed by the display of force made by the government, the commons disobeyed the king's orders to separate, persisted in their previous decrees, and protected their members by a declaration of inviolability. Being impressed by the sturdy attitude of the commons and influenced by the public agitation in Paris and Versailles, the king, unwilling at this time to use force, brought about the union of the three orders on June 27.

But this act in no sense marked the reconciliation of the king with the new order of things. His attitude became more aggressive and the appeal to force, not made on the 23d of June, was attempted the second week in July, when the uprising of Paris and the fall of the Bastille forced the king to withdraw the troops from Paris and Versailles and to recognize the supremacy of the assembly.⁷

Having failed in this appeal to force, the resistance to the new order of things on the part of the king now assumed a more passive form. The new policy was shown in his attitude toward such acts of the assembly as required his sanction to give them the force of law. He delayed the promulgation of the 4th of August decrees, making them public only under the most extreme pressure from the assembly. He followed the same policy of procrastination in accepting the declaration of rights and the articles of the constitution, declining to approve them unless the executive power were left absolutely in the hands of the monarch.⁸

The calling of the regiment of Flanders was looked upon by the people of Paris as an attempt on the part of the king to maintain his position in opposition to all influence that might be brought to bear by the populace of Paris. It was even thought that the regiment was to be used to cover his flight, if that became necessary. The banquet of the bodyguard at Versailles served to strengthen this belief and led to the uprising of October 5.

⁷ Caron, "La tentative de contre-révolution de juin-juillet 1789," in *Revue d'histoire moderne*, VIII, 5-34, 649-78; Flammermont, *Le 14 juillet 1789*.

⁸ Stoddard, "The Causes of the Insurrection of the 5th and 6th of October," 23-25.

One aim at least of this movement was to bring the king to Paris and so withdraw him from the influence of both the court party and the moderates in the assembly.⁹ This plan having been successfully carried out, again it was believed that the king's resistance to the revolution would cease.

But his change of residence did not effect a change of the king's purpose and his resistance only sought a new channel. Neither open force nor passive resistance had been able to prevent the abolition of privilege, the promulgation of a declaration of rights, nor the establishment of the bases of a constitution. To his policy of bad faith, to which he still adhered, the king now added a new policy of foreign intervention. He appealed to the powers of Europe to aid him in his attempt to render futile the efforts of the French people to establish a constitution.¹⁰ Marie Antoinette was in constant communication with the Emperor Leopold and was even more bitter than the king against the revolution. She had no intention of abiding by the constitution and it was understood that her influence controlled the court.¹¹ So far did the king carry this double-dealing as to accept publicly the constitution which he was secretly plotting to destroy. In the speech delivered before the assembly, February 4, 1790, he proclaimed his attachment to the new order of things, promised to defend and maintain the constitution, and to train the dauphin to follow in his footsteps as a constitutional ruler.¹² It was this long course of dissimulation and international intrigue, entered upon both by Louis and his queen, that led to their ruin.¹³

The attempted flight of the royal family June 21, 1791, rendered certain what up to that time had been a matter of suspicion. The duplicity of the king was laid bare before the eyes of all France.

⁹ Stoddard, "The Causes of the Insurrection of the 5th and 6th of October," 38-47.

¹⁰ *Cambridge Modern History*, VIII, 215; Flammermont, *Négociations secrètes*, 5-9.

¹¹ Sorel, *L'Europe et la révolution française*, II, 436; Clapham, *Causes of the War of 1792*, Chap. II, also 90, 190.

¹² *Moniteur*, III, 297.

¹³ Clapham, *Causes of the War of 1792*, 24-27.

It was made clear beyond doubt by the document left behind him in which he justified his acts and confessed that he had never accepted the revolution in good faith.¹⁴ In the face of such a confession the assembly persisted in its efforts to reconcile the king to the new order of things. Arrested and brought back to Paris, he was suspended from power and placed under guard until the constitution was finished. Then set at liberty, he was permitted to accept or reject the constitution. Again he perjured himself. Having publicly accepted the new constitution he at once entered into secret negotiations with the king of Prussia for an armed congress of the powers to help him reestablish a more desirable order of things in France.¹⁵

There followed then under the legislative assembly, a period of pretense of administering the government under the new constitution during which time the king, though acting within constitutional limits, was wholly out of sympathy with the new state of things.¹⁶

The armed congress had long been the idea of Marie Antoinette and her agents at Brussels had numerous allies in the French army.¹⁷ The Emperor Leopold had decided as early as January, 1792, upon armed intervention.¹⁸ This attitude of Austria aggravated the situation.¹⁹ Its presumptuous interference in the in-

¹⁴ Glagau, *Die französische Legislative*, 1-3; *Histoire parlementaire*, X, 260-74; Clapham, *Causes of the War of 1792*, chap. III.

¹⁵ *Moniteur*, IX, 152, 655; Clapham, *Causes of the War of 1792*, chap. V; Flammermont, *Négociations secrètes*, 9. Louis XVI to the King of Prussia, Dec. 3, 1791; Klinckowström, *Le comte de Fersen et la cour de France*, II, 193, Fersen to Gustavus III, March 4, 1792.

¹⁶ Clapham, *Causes of the War of 1792*, chap. VI.

¹⁷ Klinckowström, *Le comte de Fersen et la cour de France*, I, 233 ff. Letters of Marie Antoinette to Fersen, October and November, 1791. Arneth, *Maria-Antoinette, Joseph II und Leopold II*, 259. Mercy to Kaunitz, April 8, 1792.

¹⁸ Flammermont, *Négociations secrètes*, 16. Schulembourg to Bréteuil, Feb. 13, 1792; Vivenot, *Quellen zur Geschichte der deutschen Kaiserpolitik Oesterreichs*, I, 327-70.

¹⁹ Clapham, *Causes of the War of 1792*, chap. VII; Roederer, *Chronique de cinquante jours*, 4; Arneth, *Maria-Antoinette, Joseph II und Leopold II*, 253. Mercy to Marie Antoinette, March, 1792.

ternal affairs of France²⁰ and the weak policy of the existing ministry, led the assembly to force a Girondist ministry upon the king, March 12, 1792. The following month, April 20, the assembly, on the proposition of the king acting on the advice of the new ministry, declared war against Austria.²¹ The responsibility of this war, however, can not be charged to the new ministry but to Louis XVI and Marie Antoinette, the king of Prussia and the king of Hungary.²² The king gladly accepted the situation as it offered him a possible means of coöperation with foreign states and would thus enable him to realize his plan of dictating to France under the protection of foreign armies. He continued his secret negotiations with Prussia and Austria and had no serious intention of repelling the Prussian invasion while Marie Antoinette even counted the days that must pass before the arrival of the enemy in Paris.²³

The situation was a most serious one for France. The treason of the king was suspected by the assembly and it was realized that the country and the constitution must be saved in spite of him. Vigorous measures were necessary and the Girondins introduced them into the assembly. The increasing disorder in the provinces, instigated by the priests who had not taken the oath to the constitution, led to the passage of a decree against the non-juring clergy, May 27, 1792. The continued suspicion as to the king's good faith in the defensive operations of the war and the

²⁰ Vivenot, *Quellen zur Geschichte der deutschen Kaiserpolitik Oesterreichs*, I, 433; Klinckowström, *Le comte de Fersen et la cour de France*, II, 226, Dispatch of Caraman to Bréteuil, April 10, 1792.

²¹ Clapham, *Causes of the War of 1792*, chap. VIII, IX.

²² Flammermont, *Négociations secrètes*, 23, 28, 30; Mellié, *Les sections de Paris pendant la révolution française*, 104.

²³ Clapham, *Causes of the War of 1792*, chap. X; Aulard, *Histoire politique de la révolution française*, 185; Sorel, *L'Europe et la révolution française*, II, 436; Klinckowström, *Le comte de Fersen et la cour de France*, II, 242, Fersen to Marie Antoinette, April 24, 1792; 286, Fersen to Marie Antoinette, June 2, 1792; 298, Fersen to Marie Antoinette, June 11, 1792; 318, Marie Antoinette to Fersen, July 6, 1792; Arneth, *Marie Antoinette, Joseph II und Leopold II*, 266, Mercy to the Queen, July 9, 1792; Flammermont, *Négociations secrètes*, 29-30, Bréteuil to Schulembourg July 4, 1792 and July 14, 1792.

fear of his body guard, which was hostile to the assembly, led to the decrees for the dismissal of the body guard, May 29, 1792, and for the formation of the camp of *fédérés*, June 8.²⁴ The purpose of the latter decree was to intimidate the king and to protect the assembly.

While the king hesitated to accept these decrees, Roland presented him a letter urging him to sign them. The king's determination to veto them led to the dismissal of the Girondist ministry, June 12.²⁵

This action precipitated a crisis. When the king vetoed the decree against the clergy and that providing for the camp of *fédérés*, he was acting within his constitutional rights, but the assembly believed he was using this technical right to deliver France into the hands of her enemies. The French people, then, must either submit to the indignity of being delivered over to Austria and Prussia and suffer the loss of constitutional government, or violate the very constitution that they had created.

The uprising of June 20 was the last peaceful attempt made by the people of Paris to induce the king to abandon his policy of duplicity and to govern in sympathy with the revolution, in accordance with the wishes of the assembly, to defend France against foreign invasion and to save the constitution. They hoped to induce him to withdraw his veto and recall the Girondist ministers, but the plan failed.²⁶ The people's answer was the 10th of August and the suspension of the king.²⁷ Examined thus in its connection with the revolution as a whole, the action of the people of Paris on June 20 becomes intelligible and its profound significance stands revealed.

²⁴ Roederer, *Chronique de cinquante jours*, 5; Chaumette, *Mémoires*, 4.

²⁵ Madame Roland, *Mémoires*, I, 450; Aulard in *Révolution française*, XXXV, 525; Chaumette, *Mémoires*, 5.

²⁶ Clapham, *Causes of the War of 1792*, 212.

²⁷ Roederer, *Chronique de cinquante jours*, 7.

II

THE DECREES OF THE ASSEMBLY

In the spring of 1792, the ministry of Louis XVI was divided. The minority, supported by the Feuillants, led by the Lameths and by the minority of the assembly, were opposed to war with Austria and were secretly plotting a reconstruction of the constitution in the interest of the monarch and the aristocracy.¹ In this work they counted on the support of Austria. The Girondist majority in the assembly compelled the retirement of the ministry representing this policy and on March 12, a new ministry, in sympathy with the dominant party in the assembly, was forced upon the king.² This Girondist ministry stood for the vigorous prosecution of the war, for the maintenance of constitutional government, and for the restoration of order in France.³ It was not, however, a harmonious ministry, Dumouriez being the disturbing element. He was at variance with his colleagues, selfishly ambitious, and suspected of far-reaching designs.⁴

In the effort to carry out its policy, the new ministry naturally found itself in opposition to the king who by the use of his constitutional veto was endeavoring to control the situation until the allies should reach Paris. The clash came as the result of the assembly's decrees concerning the clergy, the king's guard and

¹ Mercy states that the party of the Lameths and Duport wished to establish two chambers similar to the English form of government but that the queen objected to this arrangement. She engaged him to present her objections to the Abbé Louis who had been employed by the Lameths to influence her through Mercy. Glagau, *Die französische Legislative*, 320, Mercy to Kaunitz, Brussels, May 30, 1792.

² The members of this ministry were Roland, minister of interior, Servan, minister of war, Clavière, minister of finance. Duranthon, Lacoste and Dumouriez were the other members, but the first three named were regarded as representatives of the Girondist majority.

³ Sorel, *L'Europe et la révolution française*, II, 299-403; Von Sybel, *History of the French Revolution*, I, 405-70.

⁴ *Révolutions de Paris*, XII, 522; *Mémoires de Madame Roland*, I, 395 ff; Oelsner in *Revue Historique*, LXXXIII, 308.

the camp of 20,000 *fédérés* near Paris, all of which were looked upon by the assembly as necessary measures.

The decree against the priests was considered essential to the suppression of civil war; the dissolution of the king's guard was regarded as imperative because of its lack of loyalty to the assembly and its well-known devotion to the king who, it was feared, might use it for his own ends; the camp of 20,000 *fédérés* was decreed for the purpose of protecting the assembly and guarding Paris.⁵ The king naturally wanted no such protection. Louis permitted the dissolution of his body guard, but his conscience forbade him to sanction the decree against the priests and his good common sense led him to veto the decree for the camp.⁶

The action of the assembly had to a large extent been due to the pressure of public sentiment. There was great agitation in the Jacobin club where these questions were freely discussed and criticized.⁷ The populace of Paris was in a state of violent excitement and at the first decisive news of the war might go to any extremity.⁸ Indignation against the queen was very pronounced and the pretext for an attack upon her was found in Brissot's attempt to show the existence of an "Austrian committee" of which she was said to be the head.⁹ The court party, frightened at the sentiment against it, strove to fix upon the Orleanist party the responsibility for the origin of the report of the existence of a so-called "Austrian committee."¹⁰ In this state of affairs there was nothing for the assembly to do but to take vigorous action for the restoration of order.

⁵ Chaumette, *Mémoires*, 4; *L'indicateur* says (XXXII, June 20, 1792), in regard to the decree for an armed camp that it was a legal method for bringing armed men from the south to Paris, thus establishing a dictatorship of the departments. The *Indicateur* was hostile to the Girondists.

⁶ Sorel, *L'Europe et la révolution française*, II, 479.

⁷ Aulard, *La société des Jacobins*, III, 599-697; IV, 2-23.

⁸ Bacourt, *Correspondance entre le comte de Mirabeau et le comte de La Marck*, III, 305-08.

⁹ Glagau, *Die französische Legislative*, 321, Pellenc to La Marck, end of May, 1792; *Révolutions de Paris*, XII, 329; *L'indicateur*, XXXII, June 20, 1792.

¹⁰ *Révolutions de Paris*, XII, 432, 467.

Looking toward this end the assembly had passed the series of decrees already mentioned, the first of which was directed against the priests who had refused the oath to the civil constitution. Religious disturbances necessitated some decisive action against them for it would have been incompatible with the preservation of the state to treat longer as members of society those who were evidently seeking to dissolve it.¹¹ To consent to the project of assembling the non-juring priests in the chief places of the departments would have been equal to creating eighty-three centers of discord, fanaticism, and counter-revolution. The country must be purged. Such was the feeling of the majority of the assembly.¹²

After a discussion of several days, the assembly, actuated by the fear of the overthrow of the constitution, passed the following decree, May 27, 1792:¹³ "When twenty active citizens of a canton shall demand that a non-juring priest leave the realm, the directory of the department must pronounce his deportation, if the opinion of the directory conforms to the petition. If the opinion of the directory does not conform to the demand of the twenty citizens, it shall determine through committees whether the presence of the priest is a menace to public peace, and if the opinion of the committee conforms to the demand of the twenty petitioners, the deportation shall be ordered."¹⁴ This decree placed the clergy between the oath and deportation, but while they trembled at the assembly's project many still refused to take the oath.¹⁵

This measure was followed by another directed against the king's bodyguard. The guard had allowed anti-revolutionary sentiments to escape it and had uttered menaces against the

¹¹ *Révolutions de Paris*, XII, 390; Louis Blanc, *Histoire de la révolution française*, VIII, 17; *Mémoires de Madame Roland*, I, 386; Carro, *Santerre*, 106.

¹² *Correspondance de Thomas Lindet*, 348-50; Chaumette, *Mémoires*, 4.

¹³ Morris, *Diary and Letters*, II, 535.

¹⁴ *Moniteur*, XII, 483, 560.

¹⁵ *Révolution de Paris*, XII, 390; *Correspondance de Thomas Lindet*, 347-53.

assembly.¹⁶ It was believed to be royalist in its sympathies and wholly devoted to the person of the king, pervaded with the spirit of incivism and wholly lacking in *esprit de corps*. On May 28, Bazire proposed its dissolution, charging orgies of its officers and a plan for carrying away the king and asked that he be allowed to give his proofs the following day.¹⁷ Chabot declared on the same day that he had one hundred and eighty-two documents which proved the existence of a plot to dissolve the assembly.¹⁸ Following a report of a counterplot, set for May 27, the assembly decreed that its sessions should be permanent, that the Paris guard should be doubled, and that Pétion should be required to report upon the state of the capital daily.¹⁹

At nine o'clock on the morning of May 29, Pétion reported that the night had been calm and nothing announced a disturbance. He had scarcely finished his report when with a great uproar, a crowd from the section of the Gobelins demanded admission to the hall. Armed with pikes, guns, and forks, dressed in *sans-culottes* and red caps, and preceded by grenadiers, they crossed the hall with drums beating and ranged themselves around the assembly, swearing to sacrifice themselves to defend it.²⁰

Bazire thereupon presented his report for the dissolution of the king's guard. He pointed out that the greatest irregularities existed in its organization, that a large number of its members were ineligible, its ranks being filled with youths, priests, men from Coblenz, and some former Swiss guards. He showed that these defenders of the chateau were possessed by a spirit of counter-revolution which might overturn the actual régime. He charged orgies of officers in which the troopers had joined in drinking the health of the king, the queen and the prince.

¹⁶ Oelsner in *Revue historique*, LXXXIII, 305.

¹⁷ *Moniteur*, XII, 508.

¹⁸ *Moniteur*, XII, 513; *Révolutions de Paris*, XII, 418.

¹⁹ *Histoire parlementaire*, XIV, 297 ff.

²⁰ *Moniteur*, XII, 508; *Révolutions de Paris*, XII, 378; Lindet, *Correspondance*, IV. The assembly held an uninterrupted session May 28, 29, 30, 31, indicating the critical state of public affairs.

Couthon spoke of a conspiracy with the Tuileries at its head. Scenes in the barracks were depicted in which white flags had been found together with royalist songs and pamphlets attacking the assembly. White cockades had been distributed among the Swiss, libels on representatives of the people had been mysteriously thrown about, and the cry, "To the devil with the nation," was heard in the court of the Tuileries. The most extraordinary excitement prevailed in the assembly and this was increased by the insolence of the royalist members.²¹

Public suspicion was strong against the king. It was felt that he was in secret correspondence with his brothers, that he was protecting the *émigrés* and that he was surrounded by enemies of the country. To dissolve the guard might baffle a plot and paralyze the work of the "Austrian committee."²²

The arguments were finally summed up by Gaudet who stated three reasons why the guard should be dissolved: first, it was illegally organized; second, its chiefs sought to inspire revolt; third, the majority favored a counter-revolution. The assembly decreed, May 29, 1792, that the guard should be dissolved and its commandant, the Duc de Brissac, put under arrest.²³ This decree was executed at once.²⁴

After his ministers had showed him the danger and the uselessness of resistance, Louis XVI signed unwillingly on May 31, the decree against his guard. He, however, assured the guard of his affection for them and his satisfaction at their service and

²¹ *Moniteur*, XII, 513-16; *Révolutions de Paris*, XII, 420; Chaumette, *Mémoires*, 5.

²² *Révolutions de Paris*, XII, 382; Oelsner in *Revue historique*, LXXXIII, 306.

²³ *Moniteur*, XII, 526-29.

²⁴ Oelsner in *Revue historique*, LXXXIII, 306; It was shown that an order had been given to the guard by Sombreuil, governor of the Hôtel des Invalides, to allow all men who presented themselves armed from the king's guard or the king's household to enter the hotel during the night. This seemed to indicate that the Hôtel des Invalides had been chosen as a meeting place for all malcontents. Sombreuil, summoned before the assembly May 29, admitted the charge, but explained nothing. *Révolutions de Paris*, XII, 382, 419, 420.

manifested the greatest sympathy for the Duc de Brissac when that officer took leave of him to go to Orleans.²⁵

On the morning of May 30, Pétion again reported the situation in Paris as tranquil.²⁶ At the evening session, Louvet asked that all the sections of Paris be declared permanent, saying "It is necessary to take wise precautions that we may not one day be reduced to the frightful necessity of causing the blood of rebels to flow in the streets."²⁷ On May 31, Pétion reported that tranquility was perfectly established in Paris and in the evening the assembly closed its permanent session.²⁸

Such was the situation when the assembly passed its third decree. This provided for a camp of 20,000 *fédérés*, to be assembled on June 14 near Paris. The proposition was made to the assembly June 4 by Servan, without previous consultation, it is said, either with his colleagues or with the king.²⁹ Servan urged in his proposition that the act was necessary to establish tranquillity in the country. The decree itself states that its purpose is to draw more closely the bonds of fraternity between the departments of France. The discussions in the assembly showed that the object of that body was to insure public security. The allies were approaching from without and enemies of the constitution were plotting from within. Paris and the assembly must have protection.³⁰

²⁵ *Mémoires de Ferrières*, III, 76; *Mémoires de Madame Campan*, II, 202, 204; *Révolutions de Paris*, XII, 430, letter of D'Hervilly, a former commandant of the king's guard; Chaumette in his *Mémoires* (5) states that the king issued a proclamation the next day calumniating the assembly and praising the zealous partisans in the guard, but Aulard in a note says he was not able to find this proclamation.

²⁶ *Moniteur*, XII, 531.

²⁷ *Moniteur*, XII, 536; *Révolutions de Paris*, XII, 421.

²⁸ *Moniteur*, XII, 536; *Révolutions de Paris*, XII, 421, 424; *Journal des débats et décrets*, No. 246, p. 493.

²⁹ *Moniteur*, XII, 570; *Mémoires de Dumouriez*, II, 267; Pétion in an article entitled, *AVIS à mes concitoyens*, published in *Annales patriotiques* June 20, 1792, says that although he and Servan were closely associated at this time, Servan had not communicated his project to him.

³⁰ *Moniteur*, XII, 570-96; Blanc-Gilli (*Lettre d'un député de l'assemblée*

Servan's proposition was put in the form of a motion by Merlin, and after a discussion of two days it was passed, June 6.³¹ It provided in seven articles for the formation of a camp of 20,000 *fédérés*, recruited from all France in the ratio of five men per canton, to be assembled near Paris, July 14, while all the troops of the line now in the capital should immediately be sent to the frontiers.³²

On June 7, it was voted that the twenty thousand should be armed and equipped by the nation. Then followed a discussion upon the manner of choosing the required number of men, should the number enrolled exceed that allowed for each canton.³³ On June 8, it was decided by article seven that the choice should be made by the entire number enrolled, in the presence of the municipality.³⁴

Servan's decree met with strong opposition. In the Jacobin club, Robespierre opposed it as useless and dangerous. He asked why the army was to be brought to Paris and not directed to the frontiers. He feared the enemies of equality would become masters of the capital. He believed, too, that article seven would become a source of trouble, that it would prove ruinous to the Girondins.³⁵ Dumouriez violently reproached Servan in the council meeting for not having presented the decree to the council

nationale au département des Bouches-du-Rhône) writing to his constituents, June 21, 1792, asserted that Servan's proposition was meant to stir up the people; that it was not his own invention but was suggested to him by republican conspirators; that only on this supposition could one explain the letters written from Paris to Toulon and Marseilles early in May announcing the coming federation and asking the people to prepare their arms. Then he added that all this indicated a plan to massacre a number of functionaries of the nation and the royal family.

³¹ *Moniteur*, XII, 571, 592.

³² *Ibid.*, XII, 607, gives the final wording of the decree; Mortimer-Ternaux, *Histoire de la Terreur*, I, 115; Louis Blanc, *Histoire de la révolution française*, VIII, 26.

³³ *Moniteur*, XII, 604.

³⁴ *Ibid.*, XII, 607.

³⁵ Aulard, *La société des Jacobins*, III, 668.

first and but for the presence of the king the altercation between these two ministers might have led to blows.³⁶

Robespierre and Dumouriez were not alone in their opposition to the measure. It was also opposed by the party of the Feuillants.³⁷ Their leaders prepared a reactionary petition with 8,000 signatures, drawn largely from the members of the national guards. In this body there was much agitation because of Servan's speech, some of his expressions proving offensive to the Constitutionals. They seemed to question the loyalty of the national guard.³⁸

On the 8th and 9th of June, deputations from several battalions complained to the assembly of this attack and presented a petition, requesting the withdrawal of the decree and protesting their devotion to liberty and the fatherland.³⁹ For several sessions the assembly listened to accusations from partisans of the petition and from those who denounced it. The Mountain here deftly changed the ground of attack from the decree to the petition which had been circulated in the battalions for the purpose of extorting signatures. A letter asking for signatures, sent by the staff of the national guard to each battalion, was read to the assembly.⁴⁰ It was charged that women also had been forced to sign the petition for their husbands.⁴¹ On June 11, a number of persons appeared before the assembly to withdraw their signatures and among them an officer of the national guard.⁴²

Finally, on June 10, the assembly expelled from the hall as calumniators all petitioners who had expressed indignation either

³⁶ *Mémoires de Dumouriez*, II, 268, 269; Oelsner in *Revue historique*, LXXXIII, 308; *Révolutions de Paris*, XII, 480. This contemporary newspaper claims that Dumouriez, two months before, advocated just such a camp to save Paris.

³⁷ Oelsner in *Revue historique*, LXXXIII, 308.

³⁸ Mortimer-Ternaux points out (*Histoire de la terreur*, I, 115) that the *Moniteur* does not give Servan's speech in full, but suppresses the irritating phrases which were criticised in the petition which the national guard presented to the assembly.

³⁹ *Moniteur*, XII, 605, 618, 622; Chaumette, *Mémoires*, 5.

⁴⁰ *Moniteur*, XII, 618.

⁴¹ *Révolutions de Paris*, XII, 482.

⁴² *Ibid.*, XII, 509, 510; *Moniteur*, XII, 634-36, 638-40.

at the decree of the assembly or at the insinuations made against the national guard by the minister of war. They declared by another decree that the assembly could not listen to petitions which were the result of criminal intrigue. The Right, indignant at this decision, retired from the hall and when the president accorded the petitioners the honors of the session, the Left by a motion of adjournment disposed of the petitioners and of the question which they had forced upon the assembly.⁴³

III

THE FALL OF THE GIRONDIST MINISTRY

By the middle of June, the feeling of unrest, discontent, and fear had become general and pronounced. There was danger, it was believed, from the so-called Austrian faction, the Prussian army was approaching, treason existed everywhere and grain was getting dearer.¹

Anarchy actually reigned. Would the assembly fill Paris with an army of national guards? Partisans and adversaries of the camp of *fédérés* were continually on the point of coming to blows. A street orator came into the garden of the Tuileries to read a libel, preach the assassination of the king and foretell his overthrow.² Marat, although he had been condemned, continued

⁴³ Ternaux, *Histoire de la terreur*, I, 116; *Moniteur*, XII, 635. The *Moniteur* here states that the Left was the first to retire, but this is apparently a misstatement, as it was the Left that carried the measure against the petitioners.

¹ Lindet, *Correspondance*, 336; Lescure, *Correspondance secrète*, 601-03, *Lettre* 20, Paris, 16 juin, 1792; Roederer, *Chronique de cinquante jours*, 3.

² June 12, Delfaux, a member of the Right, denounced to the assembly a libel that an orator had read to a crowd in the garden of the Tuileries. Referring to Louis XVI, he said: "But this monster uses his power and his treasure to oppose the regeneration of the French. A new Charles IX, he wishes to bring upon France desolation and death. Go, cruel one, your crimes will have an end. Damiens was less culpable than you. He was punished with more horrible tortures for having wished to deliver France from a monster. And you, whose attempt is twenty-five million times greater, go unpunished. But tremble, tyrants, there is a Scaevola among us." *Moniteur*, XII, 642.

to write from his hiding place and filled his journal with invectives and threats of vengeance against those whom he accused of uniting with the court.³ In the Jacobin club, there were heated discussions upon the insolence of the Austrians, the dissolution of the guard, the suspected generals, and the traitorous priests.⁴ In the council there were stormy scenes between Dumouriez and the three Girondist ministers, Roland, Servan, and Clavière.⁵

The public was impatiently awaiting the sanction of the decrees and the king's delay but confirmed the suspicions that were abroad concerning his bad faith. The decree against the priests had been in his hands since June 2 and its sanction was awaited even more impatiently than the sanction of the others.⁶ The restlessness was increased by an event of June 3, the procession of the *Fête-dieu*, on which occasion there had been much disorder caused by acts of violence and by insults addressed to officers by priests.⁷ The newspapers by their reports and comments increased this unrest and the people of the faubourgs were becoming ever more irritated and threatened an uprising.⁸

While Paris was thus full of disorders and scandals, Dumouriez urged the king to sanction the decrees, assuring him that without the aid of force he could not hope to override the suspicions of the greater part of the nation, nor the rage of the Jacobins, nor the politics of the republican party.⁹ But the king asked for time to reflect.

This state of affairs could not last. Someone must act. The

³ Ternaux, I, 118.

⁴ Aulard, *Société des Jacobins*, III, 590-697; Lescure, *Correspondance secrète*, 601-03, lettre 20.

⁵ *Mémoires de Dumouriez*, II, 269-71; *Mémoires de Madame Roland*, I, 386.

⁶ *Moniteur*, XII, 560.

⁷ *Histoire parlementaire*, XIV, 424, contains the text of the municipal decree of June 1 against this procession; *Révolutions de Paris*, XII, 492-94, gives a description of the procession.

⁸ *Histoire parlementaire*, XIV, 425, gives extracts from Brissot's *Patriote français*, June 4, and from *Le tribune des patriotes*, No. III, of Camille Desmoulins.

⁹ *Mémoires de Dumouriez*, II, 269-73; Lescure, *Correspondance secrète*, lettre 20.

ministry decided to force the hand of the king or to expose his treachery to the eyes of France. Roland took the initiative, making the delay in signing the decrees the occasion of a letter to the king—a letter famous in the history of the revolution. It has been aptly termed “the ultimatum of the Girondins to royalty.”¹⁰ In this step he had the support of two of his colleagues, Servan and Clavière.¹¹ The letter was dated June 10 and undoubtedly reflected the state of feeling of the majority of the French people.

Roland stated that the enthusiasm for the constitution was so strong that the people were ready to die in its support;¹² he assured the king that the effect of his attitude would be to encourage his enemies and arouse defiance;¹³ he showed that fermentation was extreme throughout France and that the inflamed minds might be aroused to commit terrible deeds;¹⁴ he added, furthermore, that the revolution was sure to be accomplished and that the king's action only caused suspicion and would result in the overthrow of the throne;¹⁵ and concluded with the assurance

¹⁰ *Ternaux*, I, 119.

¹¹ Madame Roland states (*Mémoires*, I, 387) that all the ministers approved the idea of this letter to the king, but showed weakness when it came time to act. There is no other evidence to show that Dumouriez, Duranthon or Lacoste approved it.

¹² “Les Français se sont donné une constitution; elle a fait des mécontents et des rebelles; la majorité de la nation la veut maintenir; elle a juré de la défendre au prix de son sang. . . . La déclaration des droits est devenue un évangile politique; et la constitution française, une religion pour laquelle le peuple est prêt à périr. . . . La révolution est faite dans les esprits: elle s'achevera au prix du sang et sera cimentée par lui.” *Moniteur*, XII, 658.

¹³ “Ces sentiments, qui tiennent à la nature du cœur humain, ont dû entrer dans le calcul des ennemis de la révolution. Ils ont donc compté sur une faveur secrète, jusqu'à ce que les circonstances permissent une protection déclarée. Ces dispositions ne pouvaient échapper à la nation elle-même, et elles ont dû la tenir en défiance.” *Moniteur*, XII, 658.

¹⁴ “La fermentation est extrême dans toutes les parties de l'empire; elle éclatera d'une manière terrible.” *Moniteur*, XII, 658.

¹⁵ “Le salut de l'état et le bonheur de Votre Majesté sont intimement liés; aucune puissance n'est capable de les séparer; de cruelles angoisses et des

that the remedy for the situation was to be found in the king's support of the assembly and the constitution and in his sanction of the decrees.¹⁶

Just how this letter was communicated to the king is not known. According to Dumouriez, it was read in the council meeting June 10, but according to Madame Roland it was sent to the king June 11. Dumouriez accused Roland of bad faith respecting this letter, asserting that he promised the king that the letter should remain a secret between them and then read it to the council and sent it to the assembly.¹⁷ His statement is not convincing.

The feeling at the court was very bitter. The king was indignant at what he considered an insult. On the following morning Dumouriez, who was now at the height of royal favor, was called to the chateau.¹⁸ He found the king and queen together. The

malheurs certains environneront votre trône, s'il n'est appuyé par vous-même sur les bases de la constitution." *Ibid.*

¹⁶ "Le retard de leur sanction inspire des défiances: s'il est prolongé, il causera des mécontents. . . que votre Majesté lui donne sa sanction! la tranquillité publique la réclame. Pourquoi faut-il que des retards lui donnent l'air du regret, lorsque la célérité lui gagnerait tous les coeurs! . . . déjà l'opinion compromet les intentions de Votre Majesté." *Ibid.*; "Il est évident pour la nation française que sa constitution peut marcher; que le gouvernement aura toute la force qui lui est nécessaire, du moment où Votre Majesté, voulant absolument le triomphe de cette constitution, soutiendra le corps législatif de toute la puissance de l'exécution, ôtera tout prétexte aux inquiétudes du peuple, et tout espoir aux mécontents." *Ibid.*; See the letter in full, *Moniteur*, XII, 658. This letter was written by Madame Roland, though she and Roland had agreed on the groundwork of it. *Mémoires de Madame Roland*, I, 387, Roederer (*Chronique de cinquante jours*, 8) refers to it as written by Roland, but he wrote thirty years after and we do not know his authority.

¹⁷ Dumouriz says the letter began, "Sire, cette lettre-ci restera éternellement ensevelie entre vous et moi." Neither this nor any similar passage is found in the letter as published in the *Mémoires* of Madame Roland nor in the *Moniteur*. It is difficult to say whether Roland cut out from his letter the expression that would have inconvenienced him or whether Dumouriez reported what would have aggravated Roland's mistakes. *Mémoires de Dumouriez*, II, 274. *Moniteur*, XII, 658.

¹⁸ Oelsner in *Revue historique*, LXXXIII, 308.

queen, he tells us, broke in with, "Do you think that the king ought to endure longer the menaces and insolence of Roland and the deceit of Servan and Clavière?" Dumouriez assured her that he did not think so and that he wondered at the patience of the king. He advised an entire change of ministers. The king thereupon expressed a wish that Dumouriez, Lacoste, and Duranton remain. Dumouriez agreed only on condition that the king would sanction the decrees and this condition he asserts the king accepted.¹⁹

The fall of the Girondist ministry followed close upon the publication of the letter. Servan was dismissed on June 12, and Roland and Clavière on the following day. On June 13, these three men appeared in the assembly. A letter was read from Servan announcing his dismissal and stating the reasons. The assembly voted, amidst great applause, that he carried with him the esteem and regrets of the nation and that his letter should be printed and copies sent to the eighty-three departments. Thereupon a letter from the king announcing the dismissal of the ministers was read as well as letters from Roland and Clavière announcing their dismissal. The climax was reached with the reading of Roland's letter to the king. It made a profound impression upon the assembly, being interrupted by frequent applause and was received with marked approbation. The printing of the letter was decreed and it was voted to send copies to the eighty-three departments. The regrets of the nation were voted to Roland and after some objection to Clavière.²⁰

The situation now grew clearer. This letter with all its attending circumstances, followed by the dismissal of the ministry, made it plain to all France that the king was holding firmly to his policy of determined opposition to the constitution. The action of the assembly proved just as clearly, that the sympathy

¹⁹ *Mémoires de Dumouriez*, II, 275-79. Royalist writers doubt whether the king ever agreed to sanction the decree against the priests. See Ternaux, I, 120; Morris, *Diary and Letters*, I, 544.

²⁰ *Moniteur*, XII, 656-59; *Révolutions de Paris*, XII, 516; *Mémoires de Dumouriez*, II, 290-91; Oelsner in *Revue historique*, LXXXIII, 310; Lescuré, *Correspondance secrète*, 601-03, lettre 20.

of the representatives of the nation was with the dismissed ministry, and the sending of Roland's letter to the eighty-three departments was nothing else than an appeal to the nation.²¹

The names of the men who were to replace the fallen ministers were announced to the assembly on June 13 in a letter from the king.²² Dumouriez was leader of this ministry.²³

On the same day that the dismissal of the Girondist ministry was made public, Dumouriez, as minister of war, read a *mémoire* in the assembly, upon the department of war, in which he criticized his predecessors, Degraive and Servan, complained of the deplorable state of the army and reported that several strong places were in a defenceless condition.²⁴ He was frequently interrupted by murmurs. The Left at once accused him of treason and threatened to send him to the high court of Orleans and decreed that he must lay before the assembly within twenty-four hours, documents in proof of his assertions. They reasoned that if his accusations were true, he was a criminal for having precipitated the country into war at such a time and if they were not true he was a calumniator.²⁵

But the anger of the assembly was mild compared with that of the Jacobins and of the press. Dumouriez was unsparingly condemned by both.²⁶ Fearing an uprising, he again urged the king to sanction the decrees, but Louis continued to procrastinate, asking for a little more time, and so kept Dumouriez expecting his sanction.²⁷ Finally the king refused to sign and Dumouriez,

²¹ Lescure, *Correspondance secrète*, 601-603, lettre 20.

²² *Moniteur*, XII, 657; *Révolutions de Paris*, XII, 516; *Mémoires de Dumouriez*, II, 280-81.

²³ The other members of the new ministry were Mourgues, minister of interior and M. de Neuillac of foreign affairs. Duranthon and Lacoste remained and the ministry of finance was left vacant. King's letter, *Moniteur*, XII, 657; Chaumette, *Mémoires*, 6, note 2; Bacourt, *Correspondance entre le comte de Mirabeau et le comte de La Marck*, III, 311, Montmorin to La Marck, June 19, 1792.

²⁴ *Moniteur*, XII, 669 gives the complete *mémoire*.

²⁵ *Ibid.*, XII, 660.

²⁶ Aulard, *La société des Jacobins*, IV, 2-3; *Révolutions de Paris*, XII, 522, ff.

²⁷ *Mémoires de Dumouriez*, II, 295.

realizing that it was useless to urge him further, resigned, three days after the Girondins had fallen. Much to his surprise—for he seems to have believed himself indispensable—his resignation was accepted.²⁸ His was a short and an inglorious ministry.

It was clear now that the king, who was a past-master in deception, had used Dumouriez only to get rid of Roland. But even this injustice brought little sympathy or regret for the fallen minister as he was generally regarded as an adventurer and an intriguer and it was even said that he was a traitor.²⁹

IV

THE FEUILLANT MINISTRY

The king, in a last effort to carry out his anti-revolutionary policy, chose a new ministry, the third in as many months. The letter announcing the appointment was read to the assembly on June 18, but these ministerial changes were so common that the assembly paid little heed to it. Of the old ministry Duranthon and Lacoste were retained, Chambonas was made minister of foreign affairs, Lajard of war, Terrier de Montciel of the interior, and Beaulieu of finance. The new ministry represented the Feuillant element in the assembly and was dominated by Lafayette.¹

An event now occurred which stirred France to its depths and turned all eyes toward Lafayette.² That general brought himself effectually before the public by writing a threatening letter to the assembly, dated June 16, 1792, from his camp at Maubeuge. The letter has been called "the manifesto of the constitutional party as Roland's letter was of the Jacobins."³ It was a most

²⁸ *Ibid.*, II, 295-300; Morris, *Diary and Letters*, I, 544, Morris to Jefferson, June 17, 1792.

²⁹ Oelsner in *Revue historique*, LXXXIII, 310; Lindet *Correspondance*, 356; Chaumette, *Mémoires*, 9.

¹ Chambonas was Lafayette's cousin and Lajard was one of his creatures. *Révolutions de Paris*, XII, 522.

² *Nouvelle correspondance politique*, XII, 1.

³ Ternaux, I, 128.

undiplomatic move and proved to be disastrous to the constitutional party. In this letter Lafayette attacked the Jacobin societies, as the authors of all disorders, and advised their suppression. He represented them as an empire having its metropolis and affiliations, as a distinct corporation in the midst of the French people of which it usurped the powers and subjugated the representatives. He denounced the ministry just fallen, especially Servan and Dumouriez, condemned the efforts then being made to overthrow the constitution and proclaimed his intention to enforce that instrument and so to carry out the supreme will of the people. Finally, he advised the assembly to suppress all foreign and internal enemies, asserting that France was able to protect herself, if she would.⁴

The letter was read in the assembly June 18 and was received with great applause. It was voted that it be printed and that copies be sent to the eighty-three departments. This entire approbation seemed to show that the assembly was Feuillant in its sympathies. The Left was greatly excited. Vergniaud made a vigorous speech in which he distinguished between petitions presented by simple citizens and those presented by the general of an army, asserting that the advice of a general to a legislative assembly amounted to dictation. Gaudet insisted that the letter could not have been written by Lafayette because it spoke of an event which occurred in Paris on June 16, and which could not have been known to Lafayette at Maubeuge on the same day.⁵ The letter, he asserted, must have been fabricated or signed in blank. He then moved that it be sent to the committee of twelve and the motion was carried unanimously although this vote was entirely contradictory to the former vote of the assembly transmitting the letter to the departments.⁶

This letter caused the greatest excitement in Paris⁷ spreading,

⁴ *Moniteur*, XII, 698; *Histoire parlementaire*, XV, 69-74; Roederer, *Chronique de cinquante jours*, 10; Chaumette, *Mémoires*, 3, 8.

⁵ This event was the dismissal of Dumouriez as minister of war.

⁶ *Moniteur*, XII, 692-93.

⁷ Roederer, *Chronique de cinquante jours*, 16; *Mémoires du comte de Paroy*, 297; *Journal d'une bourgeoise*, 130, letter to her husband, June

of course, from the Jacobin club as the center of the most intense feeling. The death struggle had begun between this society and Lafayette.⁸ He was denounced in their meeting of June 18, as being in league with the enemies of the country, as playing the rôle of a "new General Monk," and the demand was made that he be called before the bar of the assembly to answer for his acts and be sent to the high court of Orleans.⁹

But the feeling against Lafayette grew still more intense when he addressed another letter to the king in which he surpassed the dictatorial character displayed in the letter to the assembly. He advised the king to persist in his veto. "Maintain, Sire, the authority which the national will has delegated to you," are his words.¹⁰ The newspapers accused him of treason and the assembly and clubs joined in the outcry.¹¹ A keen observer of his conduct declared that he must be either a rascal or an imbecile.¹²

Neither did Lafayette pass for being loyal to the cause of the king.¹³ Early in May, he sent an agent to Mercy at Brussels to ascertain the situation in governmental affairs and to learn the king's wishes in regard to the constitution. He indicated that he and Rochambeau would use all their efforts to carry out the king's desires, saying they alone possessed the means of establishing royal authority. But Mercy distrusted him and ascribed to him one of three motives: (1) embarrassment attendant on the

19, 1792; *Correspondance entre le comte de Mirabeau et le comte de La Marck*, III, 311-19, Montmorin to La Marck, June 19, 1792.

⁸ Glagau, *Die französische Legislative*, 342-60, Pellenc to La Marck, Paris, June 29, 1792; Pellenc to La Marck, Paris, June 30, 1792; Pellenc to La Marck, Paris, July 13-15, 1792; Clapham, *Causes of the War of 1792*, 212.

⁹ *Révolutions de Paris*, XII, 537; Aulard, *La société des Jacobins*, IV, 10-16.

¹⁰ See the letter in full in *Histoire parlementaire*, XV, 100, and in *Révolutions de Paris*, XII, 535, and in Roederer, *Chronique de cinquante jours*, 10.

¹¹ *Révolutions de Paris*, XII, 535-37.

¹² Oelsner in *Revue historique*, LXXXIV, 71; Condorect in *Chroniques de Paris*, No. 172, 682; Paroy, *Mémoires*, 297.

¹³ Glagau, *Die französische Legislative*, 341, Abbé Louis to Mercy, June 26, 1792.

disorganization of his army and the exhaustion of his resources; (2) the idea of escaping surveillance on the eve of a premeditated attack; or (3) a project of arousing distrust at the court of Berlin and of making dangerous use of responses which might be interpreted as overtures.¹⁴ This distrust existed also at the Austrian court. Kaunitz, writing to Mercy concerning Lafayette's propositions, said emphatically that such a man did not deserve the least confidence. He advised Mercy, however, to use a Fabian policy in dealing with Lafayette but not to accept a single proposition of his as a basis for reëstablishing order in France.¹⁵ Later correspondence between the two courts shows that this distrust was not dispelled. Fear was expressed that Lafayette would refuse to answer at the bar of the assembly to which he had been summoned and would find in the devotion of his army the means of resistance and so plunge the country into civil war.¹⁶ His demand at the bar of the assembly for the punishment of the crimes of June 20 was also interpreted as an excuse for bringing on civil war.¹⁷

Circumstantial evidence seems to point to an understanding between Lafayette and the directory of the department of Paris.¹⁸ The evidence also indicates that the fall of the Girondist ministry, as well as that of Dumouriez, was the result of a plot between Lafayette and the Feuillants.¹⁹

¹⁴ *Ibid.*, 318, Mercy to Kaunitz, Brussels, May 16, 1792.

¹⁵ Vivenot, *Deutsche Kaiserpolitik Oesterreichs*, II, 58, Kaunitz to Mercy, May 26, 1792.

¹⁶ Glagau, *Die französische Legislative*, 339, Mercy to Kaunitz, June 27, 1792.

¹⁷ *Ibid.*, 342-52, Pellenc to La Marck, June 29, 1792; Pellenc to La Marck, June 30, 1792.

¹⁸ The letter was sent to the assembly on June 18, by a servant of the president of the directory. Moreover, the aristocratic newspapers had the contents of the letter on the morning of June 18. Who but the president of the directory could have given it to them? *Révolutions de Paris*, XII, 532-33; *Histoire parlementaire*, XV, 101-02; Aulard, *La société des Jacobins*, IV, 15; Roederer, *Chronique de cinquante jours*, 67.

¹⁹ *Histoire parlementaire*, XV, 74-78; Roederer relates an incident which indicates that Lafayette intrigued for the fall of the Girondist ministers. He had been sent to Lafayette's camp by Servan to assure that general

The official announcement of the king's veto was made on June 19. A letter from the minister of justice was read in the assembly stating that the king had vetoed, first the decree of May 27, regarding the deportation of priests; and second, that of June 8, regarding the increase of the armed force by 20,000 *fédérés* to be assembled near Paris, July 14.²⁰

This public announcement was the occasion for offensive action. Discontent was general.²¹ The storm was gathering. A civic banquet held on the Champs Elysées, June 19, and attended by many citizens was variously interpreted. Royalist newspapers reported it as an orgy attended by five hundred people where anarchists and deputies alike took part. They ascribed to it an evil purpose.²² More moderate writers spoke of it as a very proper banquet attended by many good citizens, celebrating the anniversary of the decree which destroyed the titles of nobility. But they said it added excitement to that which was already aroused by the publication of the king's veto.²³ Everybody understood that something was about to happen, yet feared to speak of what really threatened.²⁴ A writer of the time said, "On the whole, sir, we stand on a vast volcano. We feel it tremble, we hear it roar, but how and when and where it will burst, and who may be destroyed by its eruptions, it is beyond the ken of mortal foresight to discover."²⁵ The people of the faubourgs believed

of the support of the minister of war and of his desire to keep in touch with him. Lafayette was called out from the interview by a messenger who brought him the news of the dismissal of the ministers. On hearing this he uttered a cry of joy. Roederer, *Chronique de cinquante jours*, 9.

²⁰ *Moniteur*, XII, 703.

²¹ Chaumette, *Mémoires*, 8-13; Lescure, *Correspondance secrète*, 601-03, *lettre* 20; Gorsas, *Récit générale (Extrait du courrier des 83 départements)*.

²² *Correspondance politique*, June 21, 1792, LXIII, 2; *Nouvelle correspondance politique*, June 22, 1792, XII, 2. This account is published in pamphlet form under title of *Le cri de douleur*.

²³ *Courrier des 83 départements*, June 22, 1792, IX. This account is also found in the pamphlet, *Récit générale et circonstancié des événements du vingt juin*; *Le mercure universel*, June 22, 1792.

²⁴ Oelsner in *Revue historique*, LXXXIV, 71.

²⁵ Morris, *Diary and Letters*, I, 545.

themselves surrounded by plots and were ready to take the offensive. There was a growing belief in the king's treachery and the Tuileries were no longer considered inviolable.²⁶ A plan was concerted for the morrow for which the Girondins were not without responsibility.²⁷

V

THE TWENTIETH OF JUNE

There have been various explanations of the uprising of the 20th of June. One of these asserts that it was a deep laid conspiracy on the part of the Girondist leaders to reinstate themselves in power or to avenge themselves for their defeat.¹ Another asserts just as confidently that it was a popular demonstration, an instantaneous response of the masses to the king's refusal to sanction the decrees and to his dismissal of the three ministers.² Still a third explanation regards it as a reply to the letter of Lafayette, originating with the people or with the Jacobins.³ Probably all of these statements contain a part of the truth. It was a popular demonstration and it did have leadership, but no plan of leaders, however skillful, could have succeeded in creating such general and intense feeling. The feeling must already have existed. It

²⁶ Paroy, *Mémoires*, 297; *Journal d'une bourgeoise*, 124, June 16, 1792; *Chronique du mois*, June 19, 1792; Chaumette, *Mémoires*, 12; Dreyfus in *Les femmes de la révolution française*, 1789-1795, says the people saw that the intrigues of the Tuileries would lead to the power of the Feuillants, i. e., the constitutional royalists would ally with royalists of the court.

²⁷ Masson, *Petites histoires*, série I, 246-58; Clapham, *Causes of the War of 1792*, 212.

¹ Ternaux, I, 129-230; Louis Blanc, *Histoire de la révolution*, VIII, 53; Blanc-Gilli, *Lettre d'un député de l'Assemblée nationale au département des Bouches-du-Rhône*, Paris, June 21, 1792.

² Aulard in *Révolution française*, XXXV, 532; *Lettre de Ph-Ch-Ai-Goupilleau, député de la Vendée*, Paris, June 20, 1792; *Correspondance secrète*, 601-02, Lettre 20; *Journal d'une bourgeoise*, 130-33, June 19, 1792.

³ *Patriote français*, No. 1046, 689, June 21, 1792; Clapham, *Causes of the War of 1792*, 212.

pervaded all Paris and had grown out of the actual condition of affairs. The leaders took advantage of its existence and turned it to account.

The greatest demonstration on this day came from the faubourgs and the reason for this is readily seen. The sections in the center of Paris were dominated by the royalist faction and had not the spirit for organized protest, but those of the faubourgs Saint-Antoine and Saint-Marcel had conserved all their vigorous sense of justice and of their rights and it was there that the great questions of the interests of the country and the means of saving it were discussed.⁴

It can not, however, be said that the 20th of June was solely the work of the sections even though some of them took part in it. Ever since the declaration of war in April, the sections, under the influence of the double danger from the enemy without and the court within had considered the question of organized resistance. Efforts were made to reestablish their state of permanence which had been suppressed by the law of May 21, 1790. In May and June seven sections demanded from the legislative assembly the authorization to constitute themselves in a state of permanent surveillance.⁵ It was in this state of affairs that the king vetoed the decree against the priests and that for the formation of the camp. His action was freely discussed in the sections. The dismissal of the Girondist ministry intensified the excitement. A plan had already been formed to celebrate the anniversary of the oath of the tennis court and these circumstances gave the plan a revolutionary significance. The sections, Quinze-Vingts, Popincourt, Gobelins and others decided to go around to present petitions to the king and to the national assembly and at the same time to plant a tree of liberty upon the terrace of the Feuillants.⁶

⁴ Chaumette, *Mémoires*, 12.

⁵ Mellié, *Les sections de Paris pendant la révolution française*, 104-05. The names of these sections are: Théâtre-Français, Croix Rouge, Fontaine-de-Grenelle, Lombards, Luxembourg, Meauconseil, und Louvre.

⁶ Mellié, *Les sections de Paris pendant la révolution française*, 104-05; Deliberations of the section Quinze-Vingts of June 19, in *Journal des débats et décrets*, No. 273, p. 359.

The rising was the outcome partly of the veto, the change of ministry and the consequent intrigues of the Girondins; but it was primarily a plan that had for some time occupied the leaders of the faubourgs Saint-Antoine and Saint-Marcel, who intended to celebrate the anniversary of the oath of the tennis court by a great popular demonstration that should serve as a warning to the king. The plan was to present a petition to him asking for the sanction of the decrees against the priests and for the formation of the camp.⁷ They wished to impress the king by the aspect of the people in arms and so frighten him into sanctioning the decrees and recalling the ministry. But there was no attempt on this day to overturn the throne.

For perhaps a month there had been a ferment in the faubourg Saint-Antoine. The citizens had presented a petition to the council of the commune asking permission to assemble in the church, Enfants-Trouvés, at the close of services to be instructed upon the subject of "their rights and their duties." The municipality referred this petition to the directory of the department and charged Pétion with presenting it. In his letter to Roederer, June 2, Pétion recommended that the directory give the petition a favorable and prompt consideration on the ground that this would be a means of teaching the citizens patriotism and a knowledge of the laws.⁸ By the middle of June the ferment had increased and for a week before the 20th we can see it not only in the faubourgs but in the assembly, in the clubs, Jacobin and Cordelier, and even in royal circles. The newspapers and all public gatherings reflected it.⁹

The subject of the leadership of this day is much in question.

⁷ Clapham, *Causes of the War of 1792*, 212-13; Chaumette, *Mémoires*, 13; *Révolutions de Paris*, XII, 548; Carro, *Santerre*, 107.

⁸ Letter of Pétion to Roederer, June 2, 1792, in Ternaux, I, 130.

⁹ *Déclaration de Laneyrie*; *Révolutions de Paris*, XII, 521; *Nouvelle correspondance politique*, XII, 1; *Annales patriotiques et littéraires de la France*, LII, 662-748; *Journal royaliste*, No. 5, 1-2; *Correspondance politique* LXIII, 2; Aulard, *La société des Jacobins*, III, 688-706, IV, 1-21; Chaumette, *Mémoires*, 13; *Mémoires d'Alexandre*, Masson, *Petites histoires*, série I, 246-58; Soltho Douglas, "Observations du 10 et 20 juin, 1792," *Archives Nationales*, W b 251.

Many assertions have been made regarding it for which no evidence has been produced. The Jacobins and the Girondins, collectively and individually, have been charged with being the instigators of the movement and with associating their party calculations with the popular excitement. The Jacobins Danton, Robespierre, Chabot and Lasource, the Girondins Brissot, Gaudet, Gensonné, Clavière, Roland and his wife, the municipal officers Pétion and Manuel and the editor Gorsas are all charged by one writer or another with being the leaders who remained in the shadow, the brains that directed the movement.¹⁹ If these men were the real leaders, they remained in the background, for there is little or no evidence to place upon them responsibility for the uprising. It is only their well-known revolutionary sentiments and their power of leadership that has given rise to suspicion.

The evidence seems to indicate that the leaders of the Jacobins and the Girondins had in mind two distinct ideas of the advantages which might be gained by the uprising. The Girondins hoped to effect through this excitement the recall of their fallen ministry, while the Jacobins did not wish the recall of the Girondist ministry.

¹⁹Ternaux says (I, 131) that orders were given out by Danton and by other principal leaders who remained in the shadow; Louis Blanc, (VIII, 53), calls the Girondins, Roland, Clavière, Gensonné, Gaudet, Brissot and Madame Roland, the instigators; Clapham, (112), charges the day to the Jacobins; Robiquet, (483), calls Danton the great leader who gave orders to the men who met at the home of Santerre; Martin, (24-28), indiscriminately rails at Pétion, Vergniaud, Robespierre, Chabot and the Girondins especially Madame Roland, Brissot and Gaudet for responsibility in this uprising; Varenne, (19-20), calls Pétion chief of the conspirators and the editor Gorsas an instigator. Masson says, *Petites histoires*, I, 246-50, Pétion was an accomplice of Alexandre and Santerre; Lareynie says Pétion was at the home of Santerre about midnight June 19 in secret committee but this is hearsay evidence. Carro makes the same statement but does not give his authority. Documents show that Pétion was in his office from about nine o'clock till about two in the morning, as we shall see later. An anonymous pamphlet of the time also accuses Pétion of meeting with the leaders of June 20 and of meeting with Orleans at Rincy the morning of the 20th but the records show that he was in a meeting of the municipal corps all morning, *Description de la fête civique*. Royalist newspapers make similar statements, *Journal royalist*, No. 4, p. 3; *Nouvelle correspondance politique*, XII, 1, June 23, 1792.

They desired the overthrow of the monarchy but did not think the time ripe for such action. They planned to await the arrival of the Marseillais, when a thorough revolution could be accomplished.

It has been stated that the leaders of the Girondist party, Roland, Clavière, Gensonné, Gaudet and Brissot met at the home of Madame Roland to weave a plot; that others less conspicuous took upon themselves the rôle of instigators, and that the watchword was, "Recall the good ministers."¹¹ A few years later at the trial of the Girondins, Chabot testified that Brissot and his adherents, wishing to rule through their ministry, formed a project for intervention by the people of the faubourgs for the recall of the dismissed ministers but that while the people were disposed to take part in such a movement, the recall of the ministry was the last thing they wished.¹²

The Jacobins, Robespierre and Chabot wanted a republic and feared that the recall of the Girondist ministry would only make permanent their constitutional chains. According to Chabot, Robespierre, convinced of the intrigue of the Girondins, charged him with going to the faubourg Saint-Antoine on the evening of the 19th to persuade the people to content themselves with a simple petition for the sanction of the decrees, and to await the arrival of the Marseillais and then direct their movements toward overturning the throne.¹³

It is true that Chabot was in the faubourg Saint Antoine on the

¹¹ "Notice historique sur les événements du 10 août, 1792, et des 20 et 21 juin précédents," par Sargent-Marceau, *Revue rétrospective*, 2. série, III.

¹² *Histoire parlementaire*, XXX, 40. "Procès des Girondins."

¹³ *Ibid.*, 40-41. Testimony of Chabot. If Chabot's testimony is to be accepted, Brissot on the morning of the 21st admitted that he was one of the agitators and that he believed the movement had produced the desired effect of returning Roland, Clavière and Servan to the ministry; that when he and his accomplices saw that they could not influence the court they proposed a union with the Jacobins promising to effect the overthrow of the throne, but that later he pronounced against the Jacobins for demanding this measure. This, however, is the evidence of a man who was bitterly partisan against Brissot and who when he made the statement was on trial for his life and was trying to connect Brissot with his own crime.

evening of June 19, speaking in the church Enfants-Trouvés from about 9:30 to 12:30 o'clock, but there is no evidence that he tried to give the movement a revolutionary character.¹⁴ He made an effort to have a decree passed in the section Quinze-Vingts to the effect that they should present their petition to the king and to the assembly unarmed.¹⁵ He asserts that he succeeded but that the emissaries of the faction induced the people to arm themselves after he left.¹⁶

As to Robespierre, his plan was to reserve all action for a decisive blow. He spoke much at the Jacobins to this effect. On June 13 he said, speaking of saving the country, that "it would not be done by partial insurrections, which only weaken the public cause."¹⁷ The same sentiment was expressed by Camille Desmoulins, who said in the Jacobin club on June 19, "Without doubt I regard insurrection as indispensable, but let us above all things guard against partial insurrections."¹⁸

Danton, also, has been accused of causing this uprising, but there is no proof of this assertion.¹⁹ While it is true that the debates in the Jacobin club were menacing in tone, expressing feelings out of which the 20th of June might have grown, and while it is also true that Danton, Robespierre, Camille Desmoulins and Lasource spoke vigorously—facts which may have given rise to statements that these men were the leaders—there is nothing in their speeches that can directly connect them with instigating the uprising.²⁰ Danton, on June 13, declared that he would

¹⁴ *Ibid.*, 40-41; *Nouvelle correspondance politique*, XII, 2, June 22, 1792. This article is reprinted in a pamphlet of the time, *Le cri de douleur*; *Journal royalist* No. 4, June 22, 1792; *Correspondance politique*, LXIII, 2.

¹⁵ "Procès-verbal de la séance du 19 juin de la section des Quinze-Vingts" in *Journal des débats et décrets*, No. 273, p. 359; *Histoire parlementaire*, XXX, 40.

¹⁶ *Ibid.*, XXX, 40-41.

¹⁷ Aulard, *Société des Jacobins*, III, 698.

¹⁸ *Ibid.*, IV, 20.

¹⁹ Ternaux, I, 313; Robiquet, *Le personnel municipal de Paris*, 482-83; Aulard, *Études et leçons*, 4. série, 192.

²⁰ *Ibid.*, *Société des Jacobins*, III, 688-706; IV, 1-21.

"engage to carry terror into a perverse court" but on the 14th in pronouncing a withering discourse upon this court he explained that the means he would use were twofold; first, to levy a tax on the rich and second, to send Marie Antoinette back to Austria.²¹ On June 18, he delivered another bitter discourse against Lafayette demanding that he be called to account before the bar of the assembly for the letter he had written to it.²² But none of these addresses refer in any way to the uprising of June 20. It has been more justly stated that he kept himself apart and permitted the uprising and did not regret that Louis XVI was so forcibly warned by the people, but that he wished to avoid bloodshed. His dream was of a peaceful revolution.²³

The ostensible leaders of the uprising were of a different type. Chief among them were Santerre and Alexandre, commandants of the battalions Enfants-Trouvés and Saint Marceel, men of considerable standing and influence in the faubourgs. Of less prominence were the marquis Saint Huruge and the Pole Lazowsky, captain of cannoneers in the faubourg Saint Marcel. There were others who stirred the people up, such as Fournier, known as the "American," an elector of the department of Paris of 1791, Rotonde the Italian, Legendre the butcher from the faubourg Saint German and one Curiette Verrieres. Besides these, there were a small number of confederates of the faubourg Saint-Antoine, such as Rossignol, the future general, then a journeyman goldsmith, Nicolas, a sapper of the battalion Enfants-Trouvés, Brierre, a wine merchant, Gonor, calling himself victor of the Bastille and others.²⁴

Alexandre has been referred to as the man who played the major rôle on June 20 and who was almost master of Paris in

²¹ *Ibid.*, III, 699-703.

²² *Ibid.*, IV, 11.

²³ *Ibid.*, *Etudes et leçons*, 4. série, 192.

²⁴ "Déclaration de Lareynie." This declaration was received among others by the justice of the peace of the section Roi de Sicile, June 24, 1792. It is not first-hand evidence. The author states that he learned these things through correspondence and information from the faubourgs during the week before June 20th.

1792.²⁵ While he was an important character on this day he did not play as important a rôle as did the wealthy brewer of the faubourg Saint Antoine, Antoine Joseph Santerre. This man was king in the faubourgs, rough in his manner but kindly of heart. By royalist writers he has been called ignorant, brutal, debauched and insolent.²⁶ A glimpse of his life will serve to put a different interpretation upon him. His father, also a brewer, and his mother died early, leaving a large family. Antoine Joseph was thrown upon his own resources at eighteen but previous to this time had been in college where he studied especially history, physics and chemistry. At twenty he bought a brewery. He married happily but lost his wife before the close of the year. He married again but domestic unhappiness drove him to spend his leisure hours among the people of the faubourgs. He had a reputation for kindness to his servants, generosity to the poor, and consideration for his employees and so became very popular in the faubourg. He took part in the storming of the Bastille and with his battalion followed Lafayette on the 5th and 6th of October. He often displayed great courage in the face of danger, several times facing a mob to save a man from hanging or a woman from violence or buildings from being burned. He was one of the

²⁵ Masson, *Petites histoires*, 1. série, 246-58. Alexandre's business had been that of a stock broker. He gave this up, entered the national guards, took some instructions and was elected captain of cannoneers of the Gobelins, then chief of battalion of the Gobelins, finally provisional chief of the sixth division of the national guard of Paris. Alexandre's own account of his career is found in an extract from his *Mémoires*; the manuscript of these *Mémoires* is in the possession of M. Frédéric Masson of Paris. In September, 1792, Alexandre was allowed an indemnity of 12000 francs for valuable services rendered before and after the 10th of August. The convention made him minister of war, June 22, 1792, for one day. His name was proposed by the committee of public safety but the idea of making a minister of war of a stockbroker was so inconsistent that the assembly reconsidered its vote next day. (*Moniteur*, XVI, 892.) Alexandre was named commissioner of war which office he held for eight years and then became a member of the tribunate under the consulate. Documents in support of this are found in Ternaux I, 394.

²⁶ Varenne, *Histoire particulière*, 21.

guards at the Tuileries after the king's flight and it is said was recognized by the king and queen and conversed with them and even received overtures from the queen to desert the popular cause. He was compromised in the affair of the Champ de Mars as being an Orleanist and sought safety in hiding to avoid being arrested. He was generous of heart, giving freely of his money to the poor and distributing free beer to the people. He was daring in the execution of his plans but not cruel nor wicked. Idolized by the people he could lead them wherever he chose.²⁷

About the middle of June the leaders of the faubourgs began to assemble nightly, sometimes meeting in the house of Santerre and sometimes in the hall of the committee of the section Quinze-Vingts. At these meetings plans were drawn up for the uprising. Topics were selected to be debated in popular gatherings at the Tuileries, at the Palais Royal, in the Place de Grève and at the Porte Saint-Antoine. Incendiary placards were prepared to be posted up in the faubourgs and petitions were formulated to be carried by deputations to the patriotic societies of Paris and the famous petition presented to the assembly on the 20th of June was framed.²⁸ This definite work seems to have been done on June 15.²⁹

On June 16, a deputation of ten citizens representing the petitioners from the faubourgs and led by Lazowsky was sent to

²⁷ Carro, *Santerre*, 1-99. The statements found here are drawn from Carro's *Life of Santerre*. See critical bibliography for the value of this material. One of these statements, at least, is borne out by an extract from the register of the executive council, April 6, 1793, showing that Santerre obtained a discharge of a tax of 49,603 livres which he owed to the government for 1789 and 1790 for his manufacture of beer. The report of the minister of finance declared that this beer having been consumed chiefly for patriotic ends there was reason for remitting this tax. The documents are found in Ternaux, I, 389 ff. It is also shown by these documents that Santerre had asked favors of Necker and Delessart before June 20 and of Bonaparte after the 18th brumaire. He held the title of *Maréchal de camp* and later, general of division under the revolutionary government.

²⁸ "Déclaration de Lareynie," June 24, 1792.

²⁹ Roederer, *Chronique de cinquante jours*, 18.

the municipality at the Hôtel de Ville to announce "to the council that the citizens of the faubourgs Saint-Antoine and Saint-Marcel had resolved to present, Wednesday, the 20th, to the national assembly and to the king, petitions relative to the circumstances and to plant a liberty tree upon the terrace of the Feuillants, in memory of the oath of the tennis court. They asked that the council authorize them to wear the uniforms and carry the arms that they used in 1789."³⁰

The council of the commune on the motion of Borie refused to grant this request and passed the following decree the same day: "The council having deliberated . . . and considering that the law forbids all armed assemblies not a part of the legally required public defense, passes to the order of the day." The council ordered this decree sent to the directory of the department and to the department of police and that it should be communicated to the municipal government.³¹ According to the law of June 27, 1790, the work of communicating this decree to the magistrates was the duty of the mayor.³²

According to Borie the delegates when they received this answer were defiant and stated haughtily that nothing could prevent them

³⁰ Extract from the register of the council of the commune; (*Compte rendu*,) "Conduite tenue par M. le maire de Paris;" "Procès-verbal dressé par M. Borie." The names of the men who carried the request to the council of the commune are Lazowsky, captain of cannoneers of the battalion Saint-Marcel, Duclos, Pavie, Lebon, Lachapelle, Lejeune, Vasson, citizens of the section Quinze-Vingts, Geney, Deliens and Bertrand, citizens of the section Gobelins. Lazowsky was a friend of the Duke of Liancourt. He had been factory inspector before the revolution. He was also an intimate friend and sometime travelling companion of Arthur Young. (*Travels in France*). He was once a colleague of Roland, later a friend and member of the Jacobins by whom according to Madame Roland (*Mémoires*, II, 193), he was almost canonized when he died in March, 1793, though his death was a result of debauchery. He was buried in the Place du Carrousel. Michaud, *Biographie universelle*, XXIII, 441.

³¹ See the decree in an extract from the register of the council of the commune, *Compte rendu*, 4; "Procès-verbal dressé par Borie."

³² "Rapport fait au conseil du département par M. Garnier, Leveillard et Demantort," 240.

from carrying out their designs.³³ The fermentation continued and during the following days the popular movement grew to greater proportions. Alexandre said that after the 15th or 16th one could easily foresee the approaching movement. By the 18th and 19th people talked only of the coming event and the excitement extended even to the Tuileries and vicinity.³⁴

In the face of such an uprising as now threatened, it would be expected that the mayor of Paris would adopt a vigorous policy to suppress any disorder. He not only failed to meet this expectation but the evidence seems to indicate that he carefully avoided knowing anything about the movement. It was difficult for Pétion to reconcile his personal feelings with his official duties, but he evidently felt that he must keep up an appearance of performing his duty so that if the movement failed he would not lose his office. He was known for his attachment to the principles of liberty.³⁵ That his sympathies were with the republican doctrines, we divine from his attitude toward the faubourg Saint-Antoine when it asked permission on June 2 to form a club which should meet in the church Enfants-Trouvés at the close of services "for the purpose of being instructed in their rights and their duties."³⁶

He was evidently absent from the Hôtel de Ville, June 16, when the deputation from the faubourgs presented their petition and so did not receive the decree of the council until June 18. On that day two copies were addressed to him by the secretary

³³ "Procès-verbal dressé par Borie"; Ternaux, (I, 318) makes this statement on a declaration of J. J. Leroux, but the statement is not found in his declaration.

³⁴ Masson, *Petites histoires*, I. série, 246-58; Extract from Alexandre's *Mémoires*; "Rapport que fait M. de Romainvilliers"; *Journal d'une bourgeoise*, 310, letter to her husband, June 19, 1792; "Rapport de police," Soltho Douglas, "Observations du 19 et 20 juin, 1792," Archives Nationales W/b 251; letter of Terrier to the directory, June 19, 1792 in *Rapport du ministre de l'intérieur*, I.

³⁵ *Mémoires d'Alexandre* in Masson, *Petites histoires*, I. série, 246-58; *Journal d'une bourgeoise*, 130, Letter to her husband, June 19, 1792. She says Pétion was between Scylla and Charybdis.

³⁶ Letter of Pétion to Roederer, June 2, 1792, referred to above.

of the council together with a letter reminding the mayor of the provisions of the decree for its communication. A third copy was addressed by the secretary to the department of police.³⁷ Pétion seems to have been absent from his office when this letter reached it on June 18. His chief secretary, because of the urgency of the case, sent an unsigned letter to Roederer enclosing a copy of the decree, adding that the same letter, officially signed, would be sent him tomorrow.³⁸ Later, on the same day, Pétion sent a letter to Roederer informing him of the proceedings of the commune on the 16th, enclosing a copy of the decree and asking him to communicate it to the directory.³⁹ But he gave no orders for the suppression of the movement.

Later, when the mayor was accused of failing in the discharge of his duties on this occasion, he justified his inaction by saying that this request of the 16th was one of individuals who desired to march without being assembled under the flag of the military force or without being directed by the officers recognized by law.⁴⁰ Plainly the mayor of Paris was not disposed to make any effort to allay the fermentation.

The directory, although it had no legal right to act directly in this case, was much concerned for the public peace. It spared no efforts to maintain the peace and by means of letters, decrees and conferences tried to force the mayor and the municipal officers to repress the uprising.⁴¹ After having received a com-

³⁷ See the letter from the secretary of the council of the commune to Pétion, (Ternaux, I, 139), enclosing copies of the decree.

³⁸ Letter from Pétion's office to Roederer, June 18, 1792, in *Revue rétrospective*, 2 série, I, 162-63.

³⁹ Letter of Pétion to Roederer, June 18, 1792, in *Proclamation du roi et recueil de pièces*, No. 1.

⁴⁰ "Conduite tenue par M. le Maire."

⁴¹ The administrators composing the directory of the department of Paris were La Rochefoucauld, president, Anson, vice president, Garnier (Germain), substitute for the procureur, Davous, Talleyrand, Brousse des Faucherets, Trion de Chaume, Dêmeunier, and Briois. Of this organization, Blondel was secretary and Roederer, prosecuting attorney. It was an essentially aristocratic body. The list of names of all the members of the department is found in Lacroix, *Le département de Paris et de la Seine pendant la révolution*, 212.

munication from Roederer, it wrote to the mayor and to the municipality, at noon on June 10, reminding them of their duty and asking them to meet with the directory between two and three o'clock.⁴² It wrote another letter to Pétion suggesting that he issue a proclamation stating the laws relative to public peace, calling attention to the former decree of the municipality regarding armed defense and requested that he ask the citizens to maintain order.⁴³ Between two and three o'clock the mayor and the police attended the meeting of the directory. The session was evidently a stormy one, for the situation was freely discussed.⁴⁴ At this meeting the directory, in the presence of Pétion, passed a decree declaring that it had learned from several sources that notwithstanding the decree of the council of the commune, evil-minded persons still intended to form armed assemblies under pretext of presenting petitions; that they thought that the public should be reminded of the law which forbade an assemblage of armed citizens and of the municipal law which authorized the sending of a deputation of twenty citizens to present petitions; that the people ought not to insult the council which had refused the request of the faubourgs on the 16th by allowing an armed gathering nor offend the majesty of the representatives of the people by presenting themselves before them armed. The directory then decreed that the mayor, the municipality and the commandant should be warned without delay to take all possible measures to prevent armed assemblies that would violate law and use all the force at their disposal to prevent disturbance of the public peace, and for citizens, national guards and all composing the armed force to hold themselves ready to assist if necessary.⁴⁵ Pursuant to this decree, Pétion immediately dispatched orders to the commandant and to the administrators of police to execute the decree.⁴⁶ He instructed the commandant to keep the posts

⁴² "Conduite tenue par M. le maire."

⁴³ This letter is found in Ternaux, I, 140, note 2.

⁴⁴ "Conduite tenue par M. le maire."

⁴⁵ Decree of the directory, June 10, 1792.

⁴⁶ Roederer, *Chronique de cinquante jours*, 10, says that the mayor wrote these letters at the desk of the directory; "Rapport fait au conseil

filled, to double the guards at the Tuileries and at the national assembly, to have at his disposal reserves of infantry and cavalry and to take every measure to maintain order.⁴⁷ He also wrote to the commissioners of police instructing them to keep the peace.⁴⁸ He then summoned the commandants of the two faubourgs to come to the mayoralty at nine o'clock in the evening.⁴⁹ It also appears that some time before the evening of the 19th he had written a letter to the president of the section Quinze-Vingts, asking that the citizens do not go armed to the assembly nor to the king.⁵⁰

Meantime the minister of the interior, Terrier de Montciel,⁵¹ had heard alarming reports concerning the tranquillity of Paris and wrote to the directory at 2:30 o'clock asking to be kept informed of the situation so that he might at once render an account to the king.⁵² The directory received this letter of inquiry while it was deliberating and responded at once with a copy of its decree and asked Terrier to communicate it to the national assembly.⁵³ Ever since the letter of Lafayette to the assembly had

du département par MM. Garnier, Leveillard et Demantort." *Revue rétrospective*, 2. série, I, 241.

⁴⁷ "Rapport que fait M. de Romainvilliers"; "Rapport de Roederer," *Histoire parlementaire*, XV, 424. Ternaux states (I, 141, note) that he has found the minutes of this letter and that it adds at the end the mayor's authorization to make requisition for regular troops if they are needed by the commandant.

⁴⁸ Letter of Pétion to Dumont, commissioner of police, Section Montreuil, June 19, 1792; "Rapport fait au conseil du département par MM. Garnier, Leveillard et Demantort"; "Conduite tenue par M. le maire."

⁴⁹ "Rapport d'Alexandre," Ternaux, I, 407; "Rapport fait au conseil de département par MM. Garnier, Leveillard et Demantort"; "Conduite tenue par M. le maire."

⁵⁰ *Journal des débats et décrets*, No. 273, p. 360. This gives, in the report of the proceedings of the assembly for June 25, a *procès-verbal* of the section Quinze-Vingts for June 19, evening session.

⁵¹ Terrier unlike Pétion was out of sympathy with republican doctrines. He belonged to the party of Lameth and Dupont. Glagau, 339, Mercy to Kaunitz, June 27, 1792.

⁵² *Rapport du ministre de l'intérieur*, I, letter of Terrier to the directory, June 19, 1792, 2:30 o'clock.

⁵³ *Ibid.*, Letter of the directory to Terrier, June 19, 1792.

been made public, there had been a feeling of unrest and fear at the Tuileries which had grown with each new report and now bordered on terror. The king had made his will, had gone to confession and it was said that the members of the royal family had given gifts as last souvenirs to their personal friends. It was also reported that a week before, the king had said, "I know the dark projects they have against me; I shall be at Saint-Denis within a fortnight providing that they will allow my body to lie beside those of my ancestors."⁵⁴ It was furthermore believed that the king was preparing to leave Paris. On June 18, Pétion received a letter from Bayonne, without signature and without date, that informed him that the king was going to leave Paris at two o'clock in the morning. Pétion summoned the commandant to suspend all other business and come to him without delay as he had need of a conference with him on this matter.⁵⁵ This feeling at the Tuileries was an incentive to Terrier to keep informed upon the situation. He showed the greatest solicitude for the royal family from this moment on.

The assembly held a session on this same evening, June 19, which was full of interest because of two occurrences, the reading of the petition of the Marseillais and of the decree of the directory. A deputation of citizens from Marseilles was introduced at the bar of the assembly and announced that the liberty of France was in danger and that the free men of the south were ready to march to its defense. They continued:

"The day of the people's anger has arrived. The people they have tried to kill and chain down is weary of defending itself and now is ready to take the offensive; weary of baffling conspiracies . . . the generous lion,

⁵⁴ Aulard, *Société des Jacobins*, IV, 9; *Correspondance entre le comte de Mirabeau et le comte de La Marck*, III, 318. Montmorin to La Marck, June 19, 1792; "Rapport de police, Observations de 19 juin," Soltho Douglas, *Archives Nationales*, W/b 251; "Rapport de police," June 20, 1792, *Archives Nationales*, 4387; *Annales patriotiques*, No. CLXXII, p. 757; *Journal royalist*, No. 5, p. 4; *Lettre de Blanc-Gilli, député de l'Assemblée nationale*, June 21, 1792; Paroy, *Mémoires*, 297; *L'indicateur*, No. 34, June 22, 1792.

⁵⁵ Letter of Pétion to Romainvilliers, June 18, 1792, *Archives Nationales* F¹4474¹⁰. The letter from Bayonne was enclosed.

today enraged, is ready to spring from its repose upon the pack of its enemies. Representatives, the popular force is your force. You have it in hand, use it. Give no quarter since you can expect none. The French people ask for a decree authorizing them to march with a more imposing force than any heretofore. Command and we will march upon the capital and to the frontiers. A struggle between despotism and liberty must be a struggle to the death. . . . Representatives, the people wish absolutely to finish a revolution which is its safety and its glory, which is the honor of the human mind; it wishes to save itself and to save you. Ought you to prevent this sublime movement?"

This shows the intensity of public feeling on the eve of June 20. The petition was received by some with enthusiasm and by others with cries of "incendiary and unconstitutional." One member thought it not astonishing that men born under burning skies should show an ardent imagination and an energetic patriotism. After a lively debate and amidst applause the printing was voted and it was decreed that a copy should be sent to each of the eighty-three departments.⁵⁶

The excitement had scarcely died down when the president announced that the minister of the interior had addressed a decree of the directory of the department of Paris to the assembly. The reading was called for. Immediately Saladin cried, "We have no time to lose in reading it." But Becquet insisted upon the reading, saying that the assembly should become acquainted with the decrees passed by the administrative body when it is a question of public order; that every one knew that the people were being stirred up at this time, and that it was understood by all that tomorrow would be a stormy day; that the reading should be heard with a view to taking action on the subject. Vergniaud called forth applause and laughter by some sarcastic remarks about Becquet being always so constitutional yet wishing to overturn the laws so that the national assembly might occupy itself with police measures. He opposed the reading of the decree of the department on the ground that if the assembly listened to the reading and took no action it would give a species of sanction to it and free the officers from their responsibility. Rouyer reminded the

⁵⁶ *Moniteur*, XII, 710; *Journal des débats et décrets*, No. 267, p. 257; *Révolutions de Paris*, XII, 546.

assembly that it had asked the mayor to report the situation of the city every day and that it could scarcely refuse to hear the decree of the department that shared its solicitude. The reading was received in silence.⁵⁷ Did this silence signify "tacit approbation, calculated indifference or disguised blame?" A contemporary ventures the assertion that there was an understanding between the leaders of the movement and the principal men in the assembly to the effect that the assembly would give its approval by its silence.⁵⁸

Meantime the excitement in the faubourgs had reached its highest pitch. In the faubourg Saint-Antoine, the section Quinze-Vingts held a meeting in the church, Enfants-Trouvées, beginning about eight o'clock and lasting until after one. It was attended by over a thousand citizens. A decree was passed providing for the section to join with other sections in presenting a petition to the king and to the assembly to invite the commissioners of the section, the commissioners of police and the justice of the peace to go with them. The petition to the assembly was read and adopted. A deputation from the committee of the section Popincourt presented itself asking that the section might join the Quinze-Vingts in presenting the petition to the assembly. This was joyfully received. The address to the king was then read and adopted with slight change.

Chabot then spoke to the meeting informing them of the address of the Marseillais which had been read in the legislative assembly that evening. He also urged the citizens to go to the assembly and to the king unarmed and to conduct themselves peacefully and with moderation on the morrow and so to give the lie to the semi-prophecy of Lafayette on the subject of pretended regicides. But when the citizens pronounced strongly in favor of going to the assembly armed, the president of the section stated that Pétion in a letter to him had requested that they do not present themselves armed either to the king or to the

⁵⁷ *Moniteur*, XII, 710-11; *Journal des débats et décrets*, No. 267, p. 259.

⁵⁸ Roederer, *Chronique de cinquante jours*, 23.

assembly.⁵⁹ It is also said that Chabot closed his address with, "My children, the national assembly awaits you tomorrow, without fail, with open arms."⁶⁰

This meeting was also attended by Alexandre, commandant of the battalion Saint-Marcel. It was here according to his own statement that he received his summons from Pétion and the administrators of police to meet with them at the mayoralty at nine o'clock. He told the assembly of his summons and asked them not to dismiss their meeting until his return. He came back, he claimed, at one o'clock and gave an account of what had passed at the mayoralty. He also learned that in his absence the section had decided to march on the morrow and he was given a letter by the president of the section asking him to go to the meeting place on the Boulevard de l'Hôpital at eight o'clock in the morning. During the day he had received a letter from the president of the section of the Gobelins asking him to join the citizens on the march, because his presence would help to maintain order in so great a crowd of people.⁶¹ We have no record of Santerre's attendance at this meeting, though he must have been there, being the first citizen of the faubourg. There is very little evidence of Santerre's activities in the preparations for this uprising, but there is no doubt whatever of his leadership on the day of the uprising. According to the testimony of three other commandants he had sent invitations by letter or by deputation to them, asking them to march with the battalion Enfants-Trouvées on the 20th and had invited clubs in their district, asking their coöperation. Newspapers and police reports also show him the prime mover.⁶²

Other sections besides the Quinze-Vingts sat all night, among

⁵⁹ "Procès-verbal de la séance du 19 juin de la section des Quinze-Vingts," in *Journal des débats et décrets*, No. 273, p. 359-60.

⁶⁰ "Déclaration de Thurot, volontaire grenadier de bataillon du petit Saint-Antoine, June 24, 1792;" Roederer, *Chronique de cinquante jours*, 19. Thurot says he learned this from a man who had attended the meeting. Roederer does not state his authority.

⁶¹ "Rapport d'Alexandre," Ternaux, I, 407.

⁶² "Rapport de ce qui s'est passé dans le bataillon du Val-de-Grâce"; "Section de Montreuil, Procès-verbal de la protestation de MM. Bonneau

them Popincourt and the Gobelins. These heard addresses, passed decrees and exchanged fraternal deputations with each other. They also sent letters to the commandants urging them to march with the people.⁶³ Plainly, there was activity and communication all night long among leaders, officers, clubs and sections in the faubourgs.

Of Pétion's whereabouts or activities from the close of the meeting of the directory till nine o'clock that evening we have no record. We have seen that he called the chiefs of the faubourgs to him at nine o'clock in the evening.⁶⁴ At this meeting there were four administrators of police present, Panis, Sergent, Vigner and Perron, and four or more commandants of battalions of the faubourgs, Santerre of Enfants-Trouvées, Alexandre of Saint-Marcel, Saint-Prix of Val-de-Grâce, Savin, second in command of Saint-Marguerite, and possibly Bonneau, chief of the same battalion.⁶⁵ Toward ten o'clock the commandants arrived, Alexandre appearing first and Saint-Prix last.⁶⁶

et Savin"; "Rapport fait au conseil du département par MM. Garnier, Leveillard et Demantort."

⁶³ "Procès-verbal de la seance du 19 juin de la section des Quinze-Vingts" in *Journal des débats et décrets*, No. 273, p. 359-60; "Rapport d'Alexandre," Ternaux, I, 407; "Rapport de ce qui s'est passé dans le bataillon du Val-de-Grace," No. 4, des Pièces justificatives.

⁶⁴ The letter of convocation sent to Saint-Prix is found in *Proclamation du roi et recueil de pièces*, XXXV, No. 1 of *Pièces justificatives* added to Saint-Prix's report.

⁶⁵ "Rapport de ce qui s'est passé dans le bataillon du Val-de-Grace"; "Rapport d'Alexandre," Ternaux I, 407; "Rapport et conclusion de le procureur-général-syndic du département" in *Proclamation du roi et recueil de pièces*, 15; "Conduite tenue par M. le maire." Bonneau is not mentioned by name as attending this meeting. Pétion says he summoned the commandants and mentions Santerre and Alexandre and the "other commandants." Roederer speaks as if all were present. Alexandre names Santerre and "other commandants" whom he did not know. Saint-Prix names Alexandre, Santerre and Savin. Since Bonneau was chief and Savin second in command we infer that Bonneau was one of the "other commandants."

⁶⁶ Alexandre says he saw Santerre and others arrive. Saint-Prix says he found, when he arrived, Santerre, Alexandre and Savin.

Pétion and the administrators of police asked them to state the disposition of the citizens in their sections and in their battalions. For Santerre's answer we have only Pétion's report, but Alexandre and Saint-Prix have left their own accounts. Each would have us believe that he answered first and that he suggested legalizing the movement. Santerre assured them "that nothing in the world could prevent the national guards and the citizens from marching, that all remonstrance was absolutely useless, that the inhabitants of the vicinity of Paris had joined them, that they had made a fête day of it and that they would answer to any argument that might be made, 'that they ought to receive the same treatment as others whom the assembly had received.'"⁹⁷ Alexandre affirmed that the same sentiment existed in his faubourg and declared that it would be dangerous to use force to prevent what was firmly resolved upon. He said he had not noticed any disposition on the part of the people to insult either individuals or the constituted authorities and that a wise and simple course of action would be not to try to prevent the project, but to direct it, to legalize it in some way and then he would answer for it. He said in reply to the mayor's reference to the departmental decree that it was a very good measure in itself but came too late. When asked what his personal idea was, he answered without hesitation that if the citizens did not change their minds he had resolved to march with them. He reasoned that if he did not go, he would irritate his fellow citizens and lose their confidence and still not prevent the march. He would thus lose the personal advantage of protection for his person and his home and friends and thereby gain no advantage for public affairs. On the contrary, if he marched with them he would keep their confidence and prevent them "from committing any excesses and would moderate their enthusiasm and their impatience, if they should be provoked or insulted, as there was reason, from reports, to believe they would be."⁹⁸ Other commandants did not answer in as positive a manner because they had

⁹⁷ "Conduite tenue par M. le maire"

⁹⁸ "Rapport d'Alexandre," in Ternaux, I, 407.

not such positive knowledge but all said that there was much fermentation.⁶⁹ Saint-Prix told the mayor that six weeks before, all was peaceable but that since then a club had been formed at the Porte Saint-Marcel, which had excited the people and induced them to carry a petition under arms to the national assembly and to the king and that this club had been invited by a letter from Santerre to join his battalion. Santerre admitted the correspondence, but denied that he had taken the initiative. Saint-Prix then advised the mayor to follow what he considered a policy of prudence. He said that since he could not prevent the procession, he had better legalize it. He advised him to go with the municipality to the place of assembling and read the decree of the department and state to the people in a proclamation that a petition presented under arms is illegal and request them to lay down their arms before entering the assembly and the king's palace. He suggested that Pétion precede the petitioners accompanied by officers of the municipality and that he order the commandant to furnish a number of volunteers from the battalions to protect the march of the petitioners and so give it a legal character.⁷⁰

This suggestion struck Pétion as a means of escape from his dilemma, for he and his colleagues feared lest they should be reduced to the necessity of using force against a great multitude of citizens. They withdrew from the conference into an adjoining apartment and consulted together in regard to some means of influencing the department to change its decree.⁷¹ At about midnight Vigner was sent to Roederer with a letter signed by Pétion and the four administrators of police stating the situation in the faubourgs as they had learned it from the commandants and proposing that the directory adopt some means that would be at the same time prudent and legal. They suggested that the armed citizens be grouped around the national guard under the authority

⁶⁹ "Conduite tenue par M. le maire."

⁷⁰ "Rapport de ce qui s'est passé dans le bataillon du Val-de-Grâce."

⁷¹ "Rapport d'Alexandre," "Conduite tenue par M. le maire."

of its chiefs and that the magistrates authorize the commandants of the battalions to march with them.⁷²

Pétion then returned to the leaders of the faubourgs and dismissed them saying he would inform them of the department's answer. He asked them to write to their commandant and request him to give them such instructions as he thought suitable. It was now one o'clock in the morning of the 20th.⁷³ Vigner on his return at one-thirty reported that Roederer approved Pétion's suggestion and would assemble the directory to act upon it. Pétion, feeling sure that that body could not but approve his suggestion, wrote to several of the officers to come to the mayoralty at seven o'clock in the morning to bring him news. He then retired.⁷⁴ Meantime Roederer wrote Pétion requesting that he send an administrator of police with a letter to the directory.⁷⁵ Neither Pétion nor Roederer mention this letter in their reports and we do not know Roederer's object in sending for the administrator of police.

In answer to Roederer's call the directory assembled at four o'clock in the morning.⁷⁶ After a lively discussion it was unanimously recognized that they could not receive in the ranks of the national guard men almost wholly unknown, without recognition, already in open rebellion, armed with all sorts of weapons, who might sow the seeds of disorder in the military force and

⁷² The mayor and administrators of police, Pétion, Sergent, Panis, Vigner and Perron to the Directory, June 20, 1792 at midnight.

⁷³ "Rapport d'Alexandre"; "Rapport de ce qui s'est passé dans le bataillon du Val-de-Grâce," Saint-Prix.

⁷⁴ "Conduite tenue par M. le maire."

⁷⁵ We have not this letter and neither Pétion nor Roederer mention it in their accounts, but Pétion's letter to Roederer at five o'clock says he is sending an administrator of police to the directory "in accordance with the request of your letter" and in his letter to Sergent at the same hour he says, "go immediately to the directory of the department at the request of the enclosed letter." Pétion to Roederer, June 20, 1792, five o'clock a. m. Pétion to Sergent, June 20, 1792, five o'clock a. m. Archives Nationales, F^r4774⁷⁰.

⁷⁶ Roederer, *Chronique de cinquante jours*, 20.

in case of sedition make it impossible to act.⁷⁷ They replied to Pétion with a letter at five o'clock saying, "We can not, under any circumstances, compromise the law which we have sworn to execute; it lays down our duty imperatively. We must persist in our decree of yesterday." Pétion, wakened perhaps by Roederer's messenger, and not having received the reply from the directory, sent a second letter by Sergent dated at five o'clock. This was a reply to Roederer's call for an administrator of police. It stated that "the measure indicated is the only practicable one especially in circumstances where the citizens cannot be notified and are already assembled."⁷⁸ In addition to the letter Sergent made a strong plea to the directory, still in session, in favor of legalizing, saying that the citizens had taken action irrevocably and that it would be impossible to prevent their movement. They answered him that they would give a general alarm and Sergent reminded them that for such a course written orders were necessary.⁷⁹ But they persisted in their decree and Roederer answered Pétion's letter by a postscript written on the decree of the directory stating that the decision could not be changed.⁸⁰

The directory then wrote to the commandant at five-thirty o'clock renewing instructions to him to discharge his duty in conformity with the decree of the night before, even to calling the troops under arms, if the danger were pressing.⁸¹ They also wrote to the minister of the interior at six o'clock to tell him of the proposition of the municipality and of the directory's peremptory refusal, enclosing copies of the correspondence, and stating

⁷⁷ Decree of the directory of July 6, 1792, which suspended Pétion from office.

⁷⁸ Pétion to Roederer, five o'clock a. m., June 20, 1792. Pétion in his report omits mention of this second letter which is mentioned by both Roederer and Sergent.

⁷⁹ "Procès-verbal dressé par Sergent." According to the law of Nov. 20, 1791, the mayor alone had the right to give orders in such cases. "Rapport fait au conseil du département par MM. Garnier, Levillard et Demantort," 249.

⁸⁰ Directory to the mayor and municipal officers, June 20, 1792, five o'clock a. m.; Roederer, *Chronique de cinquante jours*, 20.

⁸¹ Directory to the commandant, June 20, 1792, five-thirty a. m.

their orders to the commandant. They wrote him again at seven o'clock saying the faubourgs would present a petition but would go unarmed.⁸² Thus, we see, the directory, in contrast with the municipality, showed great interest in suppressing the movement. Roederer and the greater part of the members spent the night in the hall and held a full session at four o'clock, in the morning. As we have seen they answered dispatches of the municipality and gave orders to the commandant of the national guards. They also sent out officers to learn the state of Paris and decided to go to the assembly as soon as it should meet in the morning to say to that body that the custom which it had established of receiving armed deputations in its midst was responsible for this situation, was the obstacle to the success of the remonstrances against these petitioners.⁸³ The refusal of the directory destroyed all Pétion's plans. He says he was overwhelmed with the thought of the abyss into which this act might plunge his fellow citizens. Nevertheless he executed the ideas of the directory. He wrote to the four chiefs of the battalions, Santerre, Alexandre, Saint-Prix and Bonneau, saying, "We inform you again that you can not assemble in arms. See in this connection the letter that the directory has sent us. After this letter we understand too well your patriotism not to expect that you will conform, and instruct your fellow citizens."⁸⁴ These letters were received by Alexandre at seven o'clock and by Saint-Prix at seven-thirty. Their answers expressed a willingness to execute the order but Alexandre said he could not answer for anything.⁸⁵ After writing

⁸² Directory to Terrier, June 20, 1792, six o'clock a. m.; Directory to Terrier, June 20, 1792, seven o'clock a. m. in *Rapport du ministre de l'intérieur*.

⁸³ Roederer, *Chronique de cinquante jours*, 23.

⁸⁴ "Conduite tenue par M. le maire"; "Rapport de qui s'est passé dans le bataillon du Val-de-Grâce" in "Pièces justificatives," No. III, "Procès-verbal de la protestation de MM. Bonneau et Savin" in same, No. IX; The only direct statement that Santerre received this letter is made by these other men; "Rapport d'Alexandre," Ternaux, I, 407; Longchamp to Pétion, June 20, 1792, in Archives Nationales F⁷4774⁷⁰.

⁸⁵ Alexandre to Pétion, June 20, 1792, Archives Nationales F⁷4774⁷⁰. The original of this letter is signed Renaud, Com. of Saint-Marcel. I have not

these letters Pétion at once convoked the municipality for the morning.⁸⁶ While waiting for the members to assemble and realizing the gravity of the situation he sent some administrators of police, Sargent and Panis to the faubourg Saint-Antoine and Perron and Vigner to the faubourg Saint-Marcel. This was between seven and eight o'clock.⁸⁷ At about eight-thirty he sent three municipal officers to the faubourg Saint-Marcel where there seemed to be the greatest fermentation. He charged them to make every effort to prevent the gathering of armed men or to disperse them if they were already gathered, and to prevent the union of others with them.⁸⁸

The commandants of the battalions of the faubourgs now found themselves with conflicting instructions. They were subject to extra requisitions from their sections as well as to orders from the commandant of the national guards. As noted above, the sections that had remained sitting all night asked their commandants to march with them. We saw that Alexandre had been asked by the Gobelins and the Quinze-Vingts to march with them. The section of the Gobelins by a decree asked Saint-Prix to march at their head and help them in the ceremony of planting the liberty tree on the terrace of the Feuillants. He answered that he could not lead his battalion without a legal order, but as a citizen he would go to the section unarmed. In addition to these invitations three commandants, Santerre, Alexandre, and Saint-Prix, received during the night a written order through the acting chief of the second legion, to which their battalions belonged, to hold themselves in readiness to march at the first order. This came by order of the general commandant.⁸⁹ This commandant of the

been able to find why it is so signed. It is plainly Alexandre's answer to Pétion for he was commandant of Saint-Marcel. He adds a P. S., saying "Perron is with me and we are going to the gathering to disperse them." Perron in his "Procès-verbal" confirms Alexandre's P. S.

⁸⁶ "Conduite tenue par M. le maire," 8.

⁸⁷ "Procès-verbal dressé par Sargent"; "Procès-verbal dressé par Perron." As we shall see later he did not convoke all the members.

⁸⁸ "Procès-verbal dressé par MM. Mouchet, Guiard et Thomas."

⁸⁹ "Rapport d'Alexandre," Ternaux I, 407; "Rapport de ce qui s'est passé dans le bataillon du Val-de-Grâce" in "Pièces justificatives," Nos. II and

national guards, who for the month of June was Romainvilliers, was as embarrassed as his subordinates. After Pétion had dismissed the commandants of the faubourgs at one o'clock at night he requested Alexandre to write to the general commandant and inform him of what was occurring in the sections and ask for such instructions as the chief thought suitable. Alexandre dispatched this letter to Romainvilliers by a soldier at four o'clock in the morning. At six o'clock, he received the response which he says was given only after a half-hour's complaint about the difficulty of his position and the hard lot of being wakened at five o'clock when one has retired as late as ten, all good and true principles, Alexandre remarked, but having no application to the circumstances.⁹⁰ The commandant's response referred to the law which forbade marching without a written order,⁹¹ and yet as we saw before, Santerre, Alexandre and Saint-Prix had all received instructions at one o'clock this night by his orders to hold themselves ready to march at the first call. Many other officers also had this order. At eight o'clock in the morning the commandant went to the Hôtel de Ville where he had been summoned by the mayor to await precise orders from the municipal corps, Pétion having told him the day before that the case was too serious for him to act without the coöperation of the municipality.⁹²

The faubourgs, Saint-Marcel and Saint-Antoine, had been assembled since five o'clock in the morning.⁹³ At the faubourg

IV, "Addition au rapport que le commandant," No. XXXI, in same; "Rapport de Legard."

⁹⁰ "Rapport d'Alexandre," Ternaux I, 407. In this connection Alexandre quotes from Scarron,

"Cette response est bonne et belle,
Mais en enfer de quoi sert-elle?"

⁹¹ Alexandre to Pétion, June 20, 1792. This letter tells Pétion that Alexandre has written to the commandant as he was instructed to do and gives the substance of the commandant's answer. Romainvilliers omits all mention of this information and order from Pétion in his report; "Rapport que fait M. de Romainvilliers" and "Addition au rapport."

⁹² "Rapport que fait M. de Romainvilliers" and "Addition au rapport"; "Déclaration de Desmousseaux."

Saint-Antoine the decree of the directory had been posted during the night and crowds of people armed and unarmed were angrily commenting upon it. Sergent and Panis, the administrators of police sent out by Pétion, reached this faubourg at about eight o'clock. They were soon recognized and surrounded. They urged the people to lay down their arms, showing them that it was illegal to present a petition in arms. The people assured them that they had no intention of abandoning their arms and that they did not intend to attack the assembly nor the king. They said they had two objects, one to form a procession for the twenty legal petitioners who wished to present a petition to the assembly and to the king, the other to celebrate the anniversary of the oath of the tennis court by planting a maypole in military fashion. Besides they said they feared they would be fired upon at the Tuileries. The committee of the section *Quinze-Vingts* in this faubourg was in session surrounded by a great crowd of citizens armed and unarmed and with or without uniforms. Here the battalion *Enfants-Trouvées* was assembled with officers. Santerre was the central figure here and the mayor's letter stating the intention of the directory was the subject of discussion. Panis and Sergent continued their efforts to induce the people to respect the law, but in vain. Santerre, after inviting the administrators of police to go with them, referred the question to the people and they shouted that other armed deputations and battalions had been received by the assembly and that the directory had not opposed them, that the law was the same for all, and that they also would be received. After more vain efforts to execute the law, the officers withdrew and on going into the street saw a part of an armed battalion and a street full of citizens whose spirits were dominated with joy. The maypole, loaded on a wagon, was in their midst. Commissioners of the section and commissioners of police came to join the citizens and a banner inscribed, "In commemoration of the oath of the tennis court," was carried aloft. Sergent and Paris then set out toward the *Place de la Bastille* where they saw armed citizens continually

⁹³ "Conduite tenue par M. le maire."

coming from various directions and applauded by the citizens. The administrators of police then entered a café and had breakfast.⁹⁴

In the same faubourg the committee of the neighboring section Montreuil was in session this morning concerting with the police in an attempt to maintain order. A deputation from the section Quinze-Vingts composed of an officer, some soldiers, and some citizens, came in the name of Santerre to invite Bonneau and Savin, commandants of the battalion Sainte-Marguerite to march with their battalion, following that of the Enfants-Trouvés. Bonneau answered them with Pétion's letter which stated the decree of the directory and which appealed to the patriotism of the chiefs as a guarantee that the law would not be violated. The deputation answered that the battalion Enfants-Trouvés had received the same order but represented that it had been revoked. Bonneau did not give credence to this report, but when a great number of citizens and of national guards manifested a desire to march with their friends of the Quinze-Vingts, he yielded because he wished to avoid the evils which would follow a determined resistance. However, he and Savin, his second in command, entered a formal protest to the committee to the effect that they had not violated explicit orders, but had acted by constraint.⁹⁵

In the faubourg Saint-Marcel even more violent scenes were taking place at the same hour and in more than one part of the faubourg. According to instructions received during the night from the chief of their legion and the letter of Pétion received at seven thirty, Saint-Prix and his second in command, Leclerc, arrived early at the headquarters of their battalion, Val-de-Grâce. They found it surrounded by a crowd of armed men who wished to force the volunteers to go with them. The commandants recalled the law and showed the crowd the orders which they had received but protestations, efforts and entreaties were useless.

⁹⁴ "Procès-verbal dressé par Sergent." These men have been criticized by some writers for stopping to eat breakfast. (Ternaux I, 155-56.) But we have seen them on duty all night long so can understand their need.

⁹⁵ "Section de Montreuil, Procès-verbal de la protestation de MM. Bonneau et Savin."

They were insulted. The crowd tried to take their cannon from them. The commandants asked to put armed men in front of the cannon to protect it, but all was useless. The people were impatient because the hour for joining the faubourg Saint-Antoine was passing. They asked for a drummer but before Saint-Prix could give him orders his own volunteers of the battalion urged the crowd to possess itself of their cannon and, the cannoners abandoning their pieces, the people did so. Seeing themselves defeated by this act of insubordination on the part of the cannoners, Leclerc and Saint-Prix rushed in front of the crowd, orders in one hand and sword in the other. But realizing that only one adjutant supported them, they recalled the cannoners to their pieces and yielded to the demands of the crowd. But on the way the two commandants called upon the spectators to witness that they were "forced to march by violence and insubordination."⁹⁶

In another part of the faubourg the committee of the section of the Gobelins was assembled in the basement of the Marché-aux-Chevaux. Perron who had been sent out by Pétion at seven o'clock to engage the citizens to give up their project reached the faubourg soon after. He went to Alexandre, commandant of the battalion Saint-Marcel, who accompanied him to the committee of the section. Perron stated his mission and in company with Alexandre, the president of the committee and a commissioner of police went to the meeting-place on the boulevard Salpêtrière. Here they found a part of the battalion Saint-Marcel with arms and cannon and a large assemblage of men and women with all kinds of arms. After beating a drum to get attention, Alexandre, surrounded by the citizens, stated the object of their mission and then read the letter of the chief of the legion, the letter of the commandant, the letter of the directory and the

⁹⁶ "Rapport de ce que s'est passé dans le bataillon du Val-de-Grâce," par Saint-Prix; Longchamp, Capt 4^e Co., 10^e Bat., 2^d Legion, to Pétion, June 20, 1792, in Archives Nationales, F⁷4774⁷⁰; Weber, *Mémoires*, II, 181, refers to a letter which he says was written by an eye witness and a member of the former States General, which bears out this statement. Weber does not give the author's name.

mayor's official message and asked them to listen to the administrator of police. Perron urged the people to obey the laws and tried to induce them to lay down their arms and take the cannon back to the guardhouse, but their murmurs became violent. The people feared that their march would be stopped at the military posts on the way and that they would be repelled by force from the interior of the chateau. Consequently Perron could not shake their resolution to carry out their idea. The people, however, did not appear hostile, but assured him that they had but two objects, the first to pay their respects to the assembly and to the king, the second to renew the oath of the tennis court and to convince him of their good intentions they invited him to march at their head. One of the volunteers said openly to Alexandre, "Sir, you will be forced to march." Seeing that all their efforts were unavailing, Alexandre asked Perron to report what had happened here for the justification of both of them and Perron returned to the municipality.⁹⁷ Thorillon, a member of the national assembly and a justice of the peace in the faubourg Saint-Marcel, on hearing of the gathering went to the commandant and to the commissioner of police and finally to the committee of the section. He learned of the people's determination to go in spite of the remonstrance of the administrator of police who reminded them of the law and of the decree of the directory. While the commandant of the battalion was gone to join the other officers the crowd possessed itself of cannon with a view to beginning their march. The committee of the section, despairing because of this disobedience, charged Thorillon with making a report of the situation to the assembly and asking it to execute the law.⁹⁸

At the time of departure the three municipal officers who had been sent out by Pétion at eight-thirty arrived. They had made their way through lines of curious spectators who were watching for the procession. The officers met the procession, preceded by the two cannon, opposite the hospital Salpêtrière. Soon they were

⁹⁷ "Rapport d'Alexandre"; "Procès-verbal dressé par Perron."

⁹⁸ *Journal des débats et décrets*, No. 267, p. 264; *Journal de l'assemblée nationale*, XXI, 301.

surrounded by the crowd of people of all ages, both sexes, armed and unarmed, many in uniform, grenadiers, fusileers and light infantry with the flag in their midst. The officers reminded them of the law, of the orders given them, and of the departmental decree, but the crowd assured them that their intentions were good, that they did not wish to commit any disorder, that they only wished to present their respects to the assembly, to celebrate the oath of the tennis court, and to plant a liberty tree to perpetuate its memory. They said again that the assembly had received other petitioners and they did not see why they should not be received. The officers appealed to them in the name of the country and in the name of humanity to consider the frightful evils which might follow their conduct, but the citizens answered that no one had cause to fear and that they would guarantee that no disorder would be committed, but that nothing could prevent them from marching. The magistrates reminded them that in order to be good officers they were forced to execute the law, whereupon the citizens answered that they recognized this fact and that they also would be good citizens and that if cannon were to be used against them they also must have some. They then asked the officers to carry their flags. Whereupon the crowd yielded to its impatience and cried, "*En avant! monsieur le commandant, en avant!*" and Alexandre gave the order to march. The officers returned to the municipality where they made their report. At the same time, the municipality of Gentilly arrived and asked permission to join the procession.⁹⁹

During all this excitement a crowd had gathered in the neighboring section Jardin des Plantes trying to take away from the commandant of the battalion, Laffond, his cannon. He dispatched two letters to Pétion asking for instructions.¹⁰⁰

Meanwhile at the Hôtel de Ville the mayor had not been idle. We have seen that when Pétion learned that the directory refused on the 10th to legalize the procession he had great fear of the

⁹⁹ "Procès-verbal dressé par MM. Mouchet, Guiard et Thomas"; "Conduite tenue par M. le maire." Alexandre in his *Mémoires* says he gave the order to march, Masson, *Petites histoires*, I. série, 246-58.

¹⁰⁰ Laffond to Pétion, June 20, 1792, in Archives Nationales F⁷4474⁷⁰.

consequences and so dispatched an order to the commandants of the battalions urging them to obey the decree of the directory. We also saw that he then convoked the municipality for the morning of the 20th and sent several municipal officers and some administrators of police to the faubourgs, but he gave no order to the commandant of the national guard who came to him at eight o'clock in the morning as requested. He kept him waiting until eleven-thirty while the municipality held its session.¹⁰¹ The attendance was not full. According to the statement of four of the municipal officers, Borie, Desmousseaux, J. J. Leroux and Jallier, they did not receive their summons until nine o'clock and Champion states that he received none at all.¹⁰² When the session opened, Pétion communicated to them the reports that he had received from the administrators of police and the correspondence with the department. He told them that it was not possible to stop the march of so great a crowd of citizens and suggested to them what he said seemed the only reasonable thing to do under the circumstances—to legalize the procession. In order to do this it would be necessary to authorize the battalions to march and to rally the armed citizens in the midst of them and under the command of the chiefs.¹⁰³ They then passed the following decree: "The municipal corps being informed that a great number of citizens in all kinds of uniforms and all kinds of arms propose to present themselves to the national assembly and to the king to present an address and to celebrate at the same time the anniversary of the oath of the tennis court, decrees: That the chief of the legion, commandant of the national guard shall immediately give the necessary orders to assemble under the flag citizens in all kinds of uniforms, with all kinds of arms, who will march thus assembled under the command of the officers of the battalions."¹⁰⁴ According to statements of three municipal

¹⁰¹ "Rapport que fait M. de Romainvilliers"; "Déclaration du sieur Desmousseaux."

¹⁰² "Procès-verbal dressé par M. Borie"; "Déclaration de M. J. J. Leroux," "Déclaration de M. Jallier"; "Procès-verbal dressé par M. Champion"; "Déclaration du sieur Desmousseaux."

¹⁰³ "Conduite tenue par M. le maire."

¹⁰⁴ Decree of the municipal corps, June 20, 1792.

officers, Borie, Leroux and Jallier, they arrived at the meeting too late to have any part in the adoption of the decree. When Borie expressed his displeasure at seeing the law thus violated Mouchet answered that the circumstances did not permit of any other action.¹⁰⁵ The law of March 27, 1791 forbade the municipality to act contrary to a decree of the directory.¹⁰⁶ After passing this decree, the municipality adjourned and the members were sent by Pétion to the various places where the procession was to pass to see that everything passed off in an orderly manner, especially at the assembly and the château.¹⁰⁷

The commandant, who had been at the city hall awaiting orders since eight o'clock, received a copy of the decree of the municipal corps at eleven-thirty and returned to the headquarters of the national guard where he found contradictory orders from the minister of the interior and the directory. The minister of the interior wrote to the directory at nine o'clock, "Without delay give orders to the troops to march to the defense of the château." This letter was at once sent to the commandant with an emphatic order from the directory "to lose not an instant" in sending troops to defend the Tuileries. The directory not receiving an answer to this order, because the commandant, as we have seen, was at the Hôtel de Ville, sent another order to the headquarters still more explicit, requiring him, or in his absence, the first officer in service to "lend the help of the national guard or to summon troops of the line to assure by all means possible, even by force of arms, the safety of the king and all the royal family."¹⁰⁸

The directory of the department sat in continued session on this

¹⁰⁵ "Procès-verbal dressé par Borie."

¹⁰⁶ "Rapport fait au conseil du département par MM. Garnier, Leveillard et Demantort," 255. The *Révolutions de Paris* says (XII, 548) that this decree was wiser than that of the directory.

¹⁰⁷ "Conduite tenue par M. le maire"; "Procès-verbal dressé par MM. Mouchet et Boucher Saint-Saveur"; "Procès-verbal dressé par Patris"; "Procès-verbal dressé par Boucher René"; "Procès-verbal dressé par Hù."

¹⁰⁸ Terrier to the directory, June 20, 1792, nine o'clock; Directory to the commandant, June 20, 1792, nine o'clock; Directory to the *état major*, June 20, 1792, in Ternaux I, 162.

morning and kept up constant communication with the minister of the interior, the château and the assembly. The minister of the interior was as much concerned as the directory in the keeping of the peace. He was a man of firmness of character and of royalist sympathies.¹⁰⁹ We saw that he wrote a letter to the directory at half past two on the morning of the 19th and received a reply and that at six o'clock and at seven the directory sent him dispatches. At eight o'clock he wrote to the king rendering him an account of what was happening and assured him that he would come to his assistance.¹¹⁰ At the same hour he wrote two letters to the directory applauding their action and saying that the king wished that any attempt to enter the château should be resisted.¹¹¹ At nine o'clock he dispatched the order which we have seen above to the directory for the commandant and received their reply.¹¹² At eleven o'clock he again wrote the directory saying that the king desired two members of the department to come to the Tuileries to report the state of the city and to take precautionary measures.¹¹³

The legislative assembly met about noon on the 20th, but did not turn its attention at first, as might have been expected, to a consideration of the threatened uprising. After some other business had been brought before it, the president announced that the directory of the department wished to be admitted.¹¹⁴ The directory had shown great interest in trying to prevent the procession and had been in session since four o'clock in the morning, as we have seen, adjourning to attend the assembly as soon as

¹⁰⁹ Mercy to Kaunitz, June 27, 1792, Glagau, *Die französische Legislative*, 339.

¹¹⁰ Terrier to Louis XVI, June 20, 1792, eight o'clock, in *Archives Nationales*, C 185.

¹¹¹ Terrier to the directory, June 20, 1792, eight o'clock in *Rapport du ministre de l'intérieur*.

¹¹² Terrier to the directory, June 20, 1792, nine o'clock; Directory to Terrier, June 20, 1792, in *Rapport du ministre de l'intérieur*.

¹¹³ Terrier to the directory, June 20, 1792, eleven o'clock a. m. in *Revue rétrospective*, 2. série, I, 170.

¹¹⁴ *Moniteur*, XII, 711; *Journal des débats et décrets*, No. 267, p. 263; *Procès-verbal de l'assemblée nationale*, 376.

that body convened.¹¹⁵ They were admitted at once and Roederer addressed the meeting. He said, "An extraordinary gathering of armed men exists at this moment in spite of the law, in spite of two decrees, one of the commune, the other of the department." He went on to explain that the gathering was composed of persons of various intentions and that it had several objects in view. The object of the great majority of the people, he said, was certainly to plant a liberty tree, to hold a civic fête, and to present a new tribute of its homage to the national assembly, but he thought there was reason to fear that the attempt to present a petition to the king would be supported by force and as armed petitioners they should not be permitted to take such action. He added that reports made during the night justified these fears and that a letter from the minister of the interior at nine o'clock had advised the directory to order out troops at once to defend the château because the latest reports indicated pressing danger. He pleaded for the execution of the decree of the directory and of the wishes of the minister of the interior expressed in his letter. He said the directory felt responsible to the nation for the security of the assembly and of Paris. He again called attention to the law forbidding all armed assemblies and all unarmed ones except by permission of the municipality, and to the law against deputations of more than twenty persons for the purpose of presenting petitions. He said that while today men might be assembled for civic purposes, tomorrow there might assemble malcontents, enemies of the revolution and of the assembly. He asked, "What will we say to them? What obstacle can we put in the way of their gathering? In a word, how can we and the municipality answer for your safety if the law does not furnish the means?" He urged the assembly to uphold the law and not to receive this armed multitude in its midst, and to let nothing diminish its obligation to die for the sake of the public peace.¹¹⁶

¹¹⁵ Roederer, *Chronique de cinquante jours*, 23.

¹¹⁶ *Moniteur*, XII, 711-12; *Journal des débats et décrets*, No. 267, p. 261; *Procès-verbal de l'assemblée nationale*, 367; *Journal de l'assemblée nationale*, XXI, 296. Roederer cites the last as giving the text of his addresses. I have followed it. *Le patriote français*, No. 1046, p. 689, says

There were frequent murmurs from the galleries during this address especially when the good intentions of the people were called into question. There was little applause.

The president, François de Nantes, after quieting the galleries said, "The national assembly will take into consideration the account that you have submitted to it. It invites you to attend its session." The directory then entered the hall amidst murmurs of the galleries and applause of a part of the assembly.¹¹⁷

The conduct of the Girondins in the assembly at this time shows decided sympathy with the uprising. Vergniaud was the first speaker. He said he agreed with Roederer that civism alone actuated the citizens, but that the assembly ought to take the precautions that prudence commanded in order to prevent any act that might be provoked by the ill-intentioned. He thought it would be more regular if both they and the constituent assembly had conformed to the principles that forbade the introduction of an armed force into the legislative body because, even if civism brought men here today, tomorrow the ill-intentioned might bring in soldiers; that the sanctuary of the law ought to be open only to legislators; that by following the example of the constituent assembly they had been abettors of irregular conduct of the citizens and having accorded this permission to other delegations they ought not to be astonished at this request. He said, however, that the position here was a critical one because while other armed gatherings had been formed without asking permission of the administrative bodies, this one had done so. He thought prudence would not allow them to assume bad intentions on the part of the people and that having once accorded the privilege of marching through the hall they could not refuse it now. He did not think that the citizens intended to send armed petitioners to the king and while he did not believe that there was any danger

that without doubt Roederer was fulfilling his duty by this address rather than expressing his opinion.

¹¹⁷ *Journal de l'Assemblée nationale*, XXI, 296-98. This paper is called the most exact and the most complete journal of the national assembly, Roederer, *Chronique de cinquante jours*, 24, note; Hatin, *Bibliographie de la presse périodique française*.

he said, if there was, the assembly should share it and so asked for a deputation of sixty members to be sent to the king to remain till the gathering was dispersed.¹¹⁸

Gilbert then said that he had no doubt that the greater part of the citizens were well meaning but said the fact that they had not obeyed Pétion whose patriotism and influence were well known and who had made every effort this morning to disperse the gathering, proved that there were ill-intentioned ones among them.¹¹⁹ He supported Vergniaud's motion.¹²⁰

Thorillon then reported what has already been noted above as having occurred that morning in the section of the Gobelins. His speech brought out the fact that the people marched in spite of the protestations of the police and dragged cannon with them.¹²¹

Dumolard rendered justice to the purity of the sentiments which animated the citizens and said he was far from believing that the majority of them had criminal intentions. But he thought that in these critical circumstances the best of citizens might become instruments of intrigues and manœuvres with which the assembly was besieged every day. He said the time had come when they ought to place the constitution upon the respect-

¹¹⁸ The points in this speech are supported by three daily newspapers, *Moniteur*, XII, 714; *Journal de l'assemblée nationale*, XXI, 299; *Journal des débats et décrets*, No. 268, p. 263; Three other dailies support a few of the points, all agreeing upon Vergniaud's defense of the citizens' good intentions and his request for a deputation to be sent to the king. *Chronique de Paris*, No. 174, p. 690; *Le patriote français*, No. 1046, p. 690; *Annales patriotiques et littéraires*, No. 173, p. 760; *Procès-verbal de l'assemblée nationale*, 376, says Vergniaud asked that the citizens should present themselves before the assembly and the king unarmed and that he asked for the deputation to the king.

¹¹⁹ *Journal de l'assemblée nationale*, XXI, 300; *Journal des débats et décrets*, No. 268, p. 264; *Moniteur*, XII, 715.

¹²⁰ *Journal de l'assemblée nationale* is the only paper making this direct statement, but Gilbert's speech is plainly meant to show the importance of Vergniaud's motion.

¹²¹ *Ibid.*, XXI, 351; *Journal des débats et décrets*, No. 268, p. 264; The *Moniteur* does not give Thorillon's report of what occurred in the faubourg but says the crowd refused to obey the police and dragged cannon.

able basis of the peace and prosperity of the empire; that the time had come when they ought to execute the law in order to teach the constituted authorities to execute it. He said he understood how the national assembly, led by the example of its predecessors, had up to this time received deputations of armed men in its midst, but that the law which forbade this existed none the less and that past infractions could not justify future infractions. He reminded the assembly that at the beginning of its sessions it had felt that it would be dangerous to admit not only armed deputations but too large a number of unarmed men and for that reason had passed a decree limiting the number to ten. This decree ought to be rigorously executed and it could not be if the ten unarmed persons presenting themselves at the bar should be supported by several thousand armed men outside. He asked them to remember that all France had its eyes turned upon them and that ill-intentioned persons might easily misinterpret their conduct. "If," he continued, "in spite of the decrees of the department and of the municipality, in spite of laws most formal and most holy, in spite of the excitement and the disorder which reigns in a misled multitude, they should penetrate into our midst and into the *château*, it will be concluded that neither the assembly nor the king are free. This imputation would be injurious to the citizens of Paris. It is important to silence calumniators. It is important to show to our fellow citizens that the intrigues of aristocrats and of anarchists are equally powerless; that the constitution will not perish by their efforts, but will triumph over all of its enemies." He said he was far from resenting the motion of Vergniaud, that on the contrary it appeared essential, since it would show a union which ought to exist between the two powers for the welfare of the country. It is more essential still to show to all Europe that the assembly is not the dupe of a faction that wishes to destroy the constitution and liberty. He then asked, first that Vergniaud's motion be put to vote and, second that the department of Paris be asked to report at the evening session the measures it had taken to execute the law. This speech was very often interrupted by murmurs or applause and at the close both were violent. Many

members at once sprang to their feet demanding recognition, but at this point the president interrupted the debate by announcing a letter from Santerre, commandant of one of the battalions of the faubourg Saint-Antoine. A scene of confusion followed in which applause, murmurs and cries within mingled with the commotion from without. The procession had reached the vicinity of the assembly and was demanding admittance.¹²²

We have seen that the two faubourgs, Saint-Antoine and Saint-Marcel, began to gather at five o'clock in the morning, one on the boulevard Salpêtrière and the other near the Bastille, and that they were joined by cannoneers, grenadiers, officers from the sections and commissioners of police; that they determined to persist in their purpose of marching to the assembly in spite of the efforts of the municipal officers to disperse them. We saw, too, that Alexandre gave the command to march to the assembled crowd in the faubourg Saint-Marcel, which proceeded to join the inhabitants of the faubourg Saint-Antoine. Alexandre tells us that just at the moment of starting, he received the decree of the municipal corps which permitted the citizens in any dress and with any kind of arms to march under the command of the officers of the battalion. He says that the decree relieved him of an enormous burden and that under the circumstances he regarded it as a great benefit.¹²³ The two faubourgs were separated by the Seine and it was necessary to cross either by means of ferry boats at the place where the present Austerlitz bridge stands or farther on at the Ile Saint-Louis by the Tournelle and Marie bridges, or passage might be made even farther down the river by the bridges of the Cité. These last, Alexandre tells us in his *Mémoires*, were guarded by troops under orders from the court. He decided to cross by way of the Ile Saint-Louis and to his great astonishment he arrived without obstacle in the midst of the faubourg Saint-Antoine where he effected a juncture with the battalions that awaited him.¹²⁴ The juncture was effected without

¹²² *Journal de l'assemblée nationale*, XXI, 301-13; *Journal des débats et décrets*, No. 268, p. 264-65; *Moniteur*, XII, 715.

¹²³ "Rapport d'Alexandre."

¹²⁴ "Mémoires d'Alexandre."

accident on the site of the Bastille and the united column set out directing its march toward the national assembly.¹²⁵ The procession marched under orders from Santerre, "who," as Alexandre said, "was my senior and whose second I became."¹²⁶

Alexandre continues, "The route was long, but every thing passed off in an orderly way. No one was insulted and almost everywhere people showed signs of joy and satisfaction by applause and repeated acclamations."¹²⁷ The line of march followed the rue Saint-Antoine to the Place Bandoyer, thence by the rue Marché Saint-Jean it reached the direct line of the rue de la Verrèrie and the rue des Lombards. From this point by the rue de la Ferronnèrie, it entered the rue Saint-Honoré which it followed up to a point where a cross street led to the Place Vendôme. On the left was the monastery of the Feuillants. Here it halted.¹²⁸

The grounds and buildings in this vicinity have been much changed since 1792. Then the space between the garden of the Tuileries and the rue Saint-Honoré was irregularly covered by the buildings, courts and passages of the monastery of the Feuillants. Today the rue de Rivoli occupies the part of this space bordering on the garden of the Tuileries and is separated from it by a grating. A cross street, Castiglione, leading from this grating to the Place Vendôme has also been cut out of this space. The part of the rue de Rivoli from the former site of the Tuileries to the rue Castiglione formed then the court of the *manège*. This court was separated from the terrace of the Feuillants by a wall now replaced by the grating. Thus it will be seen that the

¹²⁵ Rapport d'Alexandre."

¹²⁶ "Mémoires d'Alexandre" It will be noted that for this incident—the juncture of the two faubourgs—we have only the accounts of Alexandre. In the "Rapport" he gives only the general statement of the union being effected without accident and of the procession starting out toward the assembly. In the "Mémoires," he gives more details.

¹²⁷ "Rapport d'Alexandre."

¹²⁸ "Rapport" and "Mémoires" of Alexandre. In the "Rapport" Alexandre states that he received the decree of the municipality just as the procession started but in the "Mémoires" he says he received it when they reached the rue Saint-Honoré.

manège and its court extended between the terrace of the Feuillants and the garden of the Tuileries.

The *manège* which had been appropriated for the use of the constitutional assembly when it was transferred from Versailles to Paris in 1789, was a building about one hundred fifty feet long standing parallel to the terrace of the Feuillants. Its long, narrow court served as an avenue. It was this court through which the procession would have to pass in order to reach the château. The entrance to the *manège* could be effected at either end of the building, but in order to get the procession out of the end leading to the château it must enter the end toward the Feuillants. Since the château was the objective point, it is clear why the leaders brought the procession up the rue Saint-Honoré as far as the Feuillants. Here they could pass between the buildings of the Feuillants and those of the Capucins which stood next to them. The courts and the gardens of these two monasteries opened into each other.¹²⁹ About the time that the procession arrived at the Feuillants by the rue Saint-Honoré, two municipal officers whom Pétion had sent to the vicinity of the Tuileries, Mouchet and Boucher-Saint-Sauveur, learning that the cortege was in the rue Saint-Honoré, proceeded to its head. They described it as being headed by sappers, national guards and cannon and dragging with it the wagon upon which the liberty tree was placed. They asked the citizens what they intended to do. They received answer that they were going to the national assembly. When the officers told them that they could not legally enter in such great numbers, they answered that they were going to ask permission and the officers accompanied the leaders to the assembly door.¹³⁰

The procession as it reached the rue Saint-Honoré is thus described by an eyewitness who wrote, almost at the time, for a contemporary newspaper:

"The faubourgs assembled upon the site of the Bastille, set out in good order about ten o'clock, the tables of the rights of man at their head,

¹²⁹ See map of Paris in 1792. Brette, *Histoire des édifices où ont siégé les assemblées*; Roederer, *Chronique de cinquante jours*, 33.

¹³⁰ Procès-verbal dressé par MM. Mouchet et Boucher Saint-Sauveur.

placed between several pieces of cannon. They showed the same honors to the liberty tree which they proposed to set up in the garden of the Tuileries opposite the château. Various inscriptions were borne aloft in the procession, none of which announced any dark designs of brigands. Here could be read, 'The nation, the law.' 'When the country is in danger all the sans-culottes are aroused,' 'Long live the national assembly,' 'Warning to Louis XVI, The people, weary of suffering, wish entire liberty or death,' 'We wish only union, liberty, long live equality,' 'Free and sans-culottes, we will preserve at least the fragments,' 'People and national guards, we are only one, we wish to be only one.' When it arrived at the rue Saint Honoré the procession, which had grown at each step, was truly imposing and solemn. This crowd of people of all conditions and in all kinds of costumes, armed as they had been in July, 1789, with every weapon that came to their hands, marched in a disorder which was only apparent. This was not a mob; these were the people of the first city of the world, full of the sentiment of liberty and filled at the same time with respect for the law which they had made. Touching fraternal feeling and equality alone honored this fête in which were found pellmell, locking arms with each other, national guards with their uniforms and without, more than two hundred of the oldest of the *invalides*, a great number of women and children of all ages, and very few epaulets; but red caps, all the charcoal burners and all the market porters in fine feather. Among the arms of all kinds with which this mass of men bristled, were seen great boughs, bouquets of flowers and ears of corn. An unrestrained joy animated this picture and passed into the hearts of the onlookers."¹²¹

It was thus that the people arrived at the court of the Feuillants at half past one o'clock and asked permission, through their leader, Santerre, to enter the assembly. As has already been said, the president interrupted the discussion to announce a letter which he had received from the commandant of the faubourg Saint-Antoine, dated June 20, 1792, and which read as follows:

"Mr. President, The inhabitants of the faubourg Saint-Antoine are celebrating today the anniversary of the oath of the tennis court; they come to present their homage to the national assembly. Their intentions have been calumniated; they ask the honor of being admitted today at the

¹²¹ *Révolutions de Paris*, XII, 548-50, dated June 16-23, 1792. A similar description is found in *Courrier des 83 départements*, IX, written by one who claims to have been an eye witness. This account is reprinted in a pamphlet called, *Récit général*. Another briefer and evidently prejudiced account, by one who says he saw the procession is found in *Correspondance politique*, LXIII, 3.

bar; they will a second time confound their cowardly detractors, they will prove today that they are the friends of law and of liberty, the men of the 14th of July. I am with respect, Mr. President, your very humble and very obedient servant. Santerre, commandant of battalion."¹³²

The reading of this letter called forth much applause from the assembly and the galleries. There was great excitement, and amidst applause, murmurs and cries, Lasource finally got the floor. He said that he had some information that would quiet their fears; that the orator of the citizens had just been in one of the offices of the assembly and had asked him to say to the assembly that they had no other object than to present their respectful homage; that they asked to march before them; that in truth they had an address to present to the king but that they did not intend to go to the château; that they wished to leave this address on the desk of the assembly for it to make use of as it saw fit and that they would make a formal agreement not to go to the château.

Vergniaud spoke next. He said he shared the opinion of Dumolard that the constitution ought to be put upon a firm basis and the laws executed. He thought, if the people had violated the law, it was because both the constituent and the present assembly had favored such a violation by allowing similar gatherings; that if they ordered the directory and the municipality to execute the law rigorously they would be renewing the bloody scenes of the Champ-de-Mars. Here were heard applause from the galleries and murmurs from one side of the house. He continued, "If you take this action which is not in your hearts, the assembly will place an ineffaceable blot upon its history." [Applause from the galleries.] Again he pleaded precedent for the error of the citizens and said that they could not believe that they would be denied admission. He insisted that since they had been assured of the purity of the motives of the citizens they could not refuse them because—and this, he said, was a very important point—"the people have been justly restless and they wish to prove to you that whatever intrigue or manœuver may be used to frighten

¹³² Ternaux I, 169; *Journal de l'assemblée nationale*, XXI, 303; *Récit général*, 10.

you about their object, the inhabitants of the faubourg Saint-Antoine will always be the firmest defenders of the law." He then asked that these petitioners already assembled be allowed to pass through their midst, but asked the assembly to pass a decree prohibiting all future admission of armed men. He closed with the applause of the galleries and a part of the assembly.¹³³

Then there was a real tumult in which some members called for the question, others tried to get the floor and others accused the president of unfairness in wishing to close the discussion.

Ramond, member of the Right, was allowed by a vote of the assembly to speak. He said Vergniaud had alleged justly that, having up to the present time admitted armed men to march before it, the assembly could not now refuse those who asked the same favor, but that he had omitted one essential difference between the present case and former ones. He said that up to the present time no one had warned the citizens that they were breaking the law, that no constituted authority had shown them their error and so they had not violated a law of the realm and that this case was essentially different. Here murmurs were heard. But he continued that he thought better of the dispositions of the citizens than Vergniaud did and having mingled with them since the beginning of the revolution he had a right to speak of their intentions. He said that when Vergniaud feared that the execution of the law would cause bloodshed he did not know to what degree the respect for law was graven on the hearts of all the citizens.¹³⁴

Here the president interrupted the discussion and announced that the commandant of the national guard had informed him that the petitioners to the number of eight thousand were at the door and asked to be admitted. In the tumult which this occasioned, Calvet cried, "They are eight thousand and we are only seven

¹³³ *Journal de l'assemblée nationale*, XXI, 304; *Journal des débats et décrets*, No. 268, p. 265; *Moniteur*, XII, 715. All the points in these two speeches are supported by these three papers except the last point in Vergniaud's speech which is not made clear in the *Journal de l'assemblée nationale*.

¹³⁴ *Ibid.*

hundred and forty-five; I propose that we suspend the session and go out."¹³⁵ This caused a still greater tumult and several members spoke at once. There were cries for Ramond to continue, for Calvet to be called to order. It was said that it would be cowardly to adjourn and finally the president called Calvet to order and quiet was reëstablished. Ramond then replied to Calvet, saying, "Eight thousand men await at your door your decision; twenty-five millions await it no less."¹³⁶ He then continued his speech. He said that more than any one he believed in the respect citizens have for the law; he believed that the legislative body would fail in its most sacred duty if it did not warn them of the respect they owed to the constituted authorities; that the legislative body was not only the lawmaker but the teacher of the people; that it ought not only to watch over the constituted authorities, but over the citizens who constituted them; and that it owed it to the law, which is the divinity of a free people, to warn them that they were transgressing a law which they had promulgated. He said he did not fear to see the entire people around them and that the more there were, the more opinions would be enlightened by the expression of the public wish; that no one desired more than he to see the citizens pass before them and to see the display of arms which would frighten their enemies, but that the assembly ought to demand that those arms be deposited at the door, else their act would take on the character of fear. [Applause and murmurs.] He said he applauded the generous sentiment which actuated Vergniaud's motion to send sixty members to the Tuileries but, convinced that there was no cause for fear in the midst of the people of Paris, he called for the previous question. But he asked that the legislative body, faithful to its duty, present to the empire and to all Europe the spectacle of an obedient multitude. He then insisted on his demand that the citizens deposit their arms at the door before they entered. [Murmurs in the galleries and, from the Left, some applause.]

¹³⁵ *Journal de l'assemblée nationale*, XXI, 305; *Journal des débats et décrets*, No. 268; p. 267; The *Moniteur* gives the same thought in different words.

¹³⁶ *Ibid.*

Gaudet took the floor. He said that when the sections of Paris had before presented themselves armed and had asked the honor of marching through the hall they had each time been accorded the favor; on this day the citizens of the faubourg Saint-Antoine asked the same favor [interruption] but suddenly it was discovered that this was a violation of the law and the demand was made that this seditious gathering be repressed with all the rigor of the law. (Several voices cried, "Not true, not true.") He said that it seemed to him that in the minds of these gentlemen the opinion of Dumolard did not deserve to be refuted, but that he thought it did. He went on to say that the demand of Ramond to deposit their arms was absolutely impractical and based upon what? A violation of the decree of the directory of the department of Paris. How could they speak of a decree of the directory, when they knew that a former law of the nation forbids the march in arms, and that the assembly has already permitted such processions. [Applause from the galleries.] It would be a revolting injustice to refuse them. He said this measure resembled that of a Roman emperor who had the laws written in such small letters that the citizens could not read them that he might find many occasions for punishment. Here there was violent agitation among the members and applause in the galleries. Some cried to call Gaudet to order; others called for Ramond's motion, and one member shouted that those who had brought the citizens here could not well send them away, but Gaudet added that the assembly had led the citizens into error and had deceived them and so he demanded the admission of the petitioners. Many voices called for the question and the galleries applauded wildly. The assembly closed the discussion.¹³⁷

During the debate the procession, led by Santerre, Alexandre and Saint-Huruge, was waiting outside. It had approached the *manège* through the rue Saint-Honoré, going as far as the gate of the Feuillants. There it passed into the narrow court of the *manège* to the foot of the stairway leading to the hall of the

¹³⁷ *Journal de l'assemblée nationale*, XXI, 307-10; *Journal des débats et décrets*, No. 268, p. 267-69; *Moniteur*, XII, 716.

assembly. The court was separated from the terrace of the Feuillants (also known as the terrace of the Tuileries) by a wall in which there was a gate.¹³⁸ This gate, leading to the garden of the Tuileries, had been closed this morning by orders from the château and was guarded by a detachment sent by Mandat of the fourth legion with three pieces of cannon.¹³⁹ The procession, led by soldiers, had intended to pass through the gate and plant the maypole on the terrace of the Feuillants, but on finding it shut and guarded, that part of the crowd which had charge of the wagon carrying the poplar tree entered the garden of the Capucins nearby and amused themselves by planting the tree there.¹⁴⁰ At the same time, the crowd in the passage leading to the terrace of the Feuillants increased to the point of suffocation. Not only was this gate closed but the one leading to the assembly was also closed and guarded. The head of the column being thus checked in the passage and the crowd from behind constantly moving up, the pressure became intolerable. The aspect of the cannon pointed at the gate from within, the fact of the gate being ordered closed when it was ordinarily open, and the terrible pressure

¹³⁸ "Procès-verbal dressé par MM. Mouchet et Boucher Saint-Sauveur;" Roederer, *Chronique de cinquante jours*, 35.

¹³⁹ "Copie du rapport du chef de la quatrième légion" [Mandat].

¹⁴⁰ Roederer, *Chronique de cinquante jours*, 35; "Déclaration de Lareynie"; *Récit générale*, 9. This pamphlet is an extract from the *Courrier des 83 départements*, IX, by Gorsas. He says he saw the procession. He makes an explanation of why the liberty tree was planted in the garden of the Capucins. He says it was Santerre's request not to plant it on the terrace of the Tuileries, because he feared disorder would result, and that he also dissuaded the people from firing a cannon to announce the planting and that finally they consented to plant it in the court of the Capucins. Lareynie in his declaration made before the judge of the peace of the section Roi de Sicile, explains that the people themselves feared that they would be fired upon in the garden of the Feuillants or the Tuileries and gave this as a reason to Santerre for planting the maypole in the garden of the Capucins. Roederer sees in this planting of the tree in the garden of the Capucins, a proof of the lack of plan, of an object, of a leader and an absence of all understanding among the participants. He believes that the designing men in the crowd hoped that an assassin would be found among them who would attack the king.

caused by the ever-increasing crowd aroused the head of the column to a state of fury and they struck violent blows at the gate, determined to break it down.¹⁴¹

Three municipal officers, Boucher-René, Boucher-Saint-Sauveur and Mouchet, who had been sent to the château by the mayor, were in the garden of the Tuileries at this time and seeing the danger from the press and hearing the blows and threats of breaking the gate, rushed to the head of the procession to calm the crowd. The people asked the officers to open the gate. They replied that they could not give orders to the château, but they would go there and try to get an order to have the gate opened. They first asked a commandant on the terrace who in turn directed them to the general commandant. But just at this time the noise redoubled and the officers saw that a cannon had been placed before the gate and directed against the citizens. They succeeded in having the cannon withdrawn. They asked the people to be patient until they returned and went to the Tuileries. On reaching the château, they asked for Romainvilliers, the commandant of the national guard, but he could not be found. They then called for M. de Wittinghof, commandant at the Tuileries. They were shown into the apartments where they said they saw a large number of people clothed in black. These men, whose presence and manner were mysterious and therefore a source of irritation and suspicion, were the king's personal guards. The king sent them away before the crowd entered to avoid serious trouble.¹⁴² The king appeared. He asked what the situation in Paris was. Boucher-René re-

¹⁴¹ "Procès-verbal dressé par MM. Mouchet et Boucher Saint-Sauveur"; Roederer, *Chronique de cinquante jours*, 35; "Copie du rapport du chef de la quatrième légion" [Mandat].

¹⁴² Poullenet to Pétion, June 23, 1792, Archives nationales F⁷4774; Addition to "Procès-verbal dressé par Mouchet"; "Déclaration de Jaladon" says they came to him to ask for more guards for the king's apartment; *Nouvelle correspondance politique*, XII, 9, says there were 150 of them ready to form a rampart with their bodies for the king. According to this newspaper the king feared a renewal of the scenes of the 20th of February and to prevent it, sent them away. This same statement is made by Bourcet, (*Révolution française*, XVII, 74). See also Klinckowström, II, 307.

plied that the object of the procession was to celebrate the anniversary of the oath of the tennis court and to present a petition to the assembly and to his majesty. The king seemed astonished that the magistrate should see so simple an act in this extraordinary movement and recalled the decree of the council and that of the directory. Then Mouchet reviewed the efforts that they had made since five o'clock to check the uprising and assured the king that since they were not able to prevent the procession they thought it best to legalize it and assemble the people under the flag; that the municipality had also taken the precaution to send its members to various places as seemed necessary and that they three were especially charged with the château. He said it was with great anxiety that they had noticed that the Tuileries, usually open to the public, had been closed just as the cortege arrived and that the people in the narrow passage showed discontent at this. He urged the king to open the gate saying that the cannon pointed at the people tended more to irritate than to appease them. "Your duty," said the king, "is to execute the law." Mouchet insisted that if the gate of the terrace of the Feuillants was not opened it would be forced. The king then replied, "You ought to execute the law. Come to an understanding with the commandant of the national guard; if you think necessary have the gate of the terrace of the Feuillants opened so that the citizens may pass along the terrace and go out by the court of the *écuries*. See that the public peace is not violated; your duty imposes surveillance upon you." The officers rushed to carry the order to Aeloq who was in command of the troops but by the time they reached the gate it had been forced and the crowd had filled the garden of the Tuileries.¹⁴³ Whether the gate was forced open

¹⁴³ "Procès-verbal dressé par MM. Mouchet et Boucher-Saint-Sauveur;" "Procès-verbal dressé par M. Boucher-René;" "Rapport du chef de la deuxième légion" [Aeloq]; "Déclaration de M. Genty, premier valet de garde-robe du roi," in Ternaux, I, 404; Terrier to the directory, report of June 26, 1792. These last two give the text of the king's order. Roederer (36) thinks that Mouchet represented the mass of the bourgeoisie of Paris who feared the popular fury but who feared even more the royal treason and so would use the uprising of the proletariat to force the court to greater uprightness and fidelity.

by a beam from the railing or whether it yielded to the pressure of the crowd can not be affirmed.¹⁴⁴

While the passage from the Feuillants to the Tuileries was being forced by one part of the crowd and while a second had relieved the pressure by entering the garden of the Capucins, a third part was awaiting, at the door of the assembly, the end of the discussion on the question of admitting them. As Gaudet finished his speech many members were on their feet asking for recognition. Suddenly, a deputation appeared at the bar and the tumult was redoubled. The president put on his hat and the deputation retired. He explained to the assembly that this precipitate entrance was a mistake made in a moment of extreme agitation and said he would put the question of admission to a vote. Lacroix then explained that the mistake was made by an usher and that when the deputation discovered its error it retired. He moved that the question be put to vote and the assembly amidst applause of the galleries and one side, voted to admit the deputation bearing the petition.¹⁴⁵ It was now about two o'clock in the afternoon.¹⁴⁶

When the column in the court of the Feuillants received permission to march through the assembly hall, the leaders recalled the crowds that had entered the garden of the Capucins and the garden of the Tuileries.

The deputation was led by Huguenin as its orator, who read a long and energetic petition which had been prepared, as we have seen, at the faubourg Saint-Antoine.¹⁴⁷ The presentation of this

¹⁴⁴ J. J. Leroux says it was forced by a beam, but the other witnesses do not say how it was opened.

¹⁴⁵ *Journal de l'assemblée nationale*, XXI, 310; *Journal des débats et décrets*, No. 267, p. 269; *Moniteur*, XII, 716; *The Gazette de France*, No. 86, a daily newspaper, stated, June 21, 1792, that the necessity of the circumstances (*i. e.*, armed citizens at the door) was responsible for the assembly's rejection of Roederer's view as well as the fact of the majority's real feelings on the matter.

¹⁴⁶ Roederer, *Chronique de cinquante jours*, 30.

¹⁴⁷ *Ibid.*, 30. Roederer gives the name Huguenin. Azema (*Révolution française*, XXVII, 172), gives Enguenet and Lenguenet but no other sources give the name of this orator. Roederer says he was a man with-

petition to the national assembly was one of the avowed objects of this day's uprising. A careful examination of its contents may serve to throw some light upon the movement. "Legislators," began the orator, "the French people come today to present to you their fears and their anxieties. In your midst they put aside their alarms and hope to find the remedy for their ills."

He then referred to the oath of the tennis court taken on this memorable day when the representatives swore not to abandon the people's cause and asked the assembly not to abandon this afflicted people. He said the people were stirred and were ready to employ rigorous measures to avenge their outraged majesty and that they found their justification in article two of the declaration of the rights of man—resistance to oppression. "But what a misfortune for free men who have transmitted all their powers to you to see themselves reduced to the cruel necessity of washing their hands in the blood of conspirators. There is no more time to dissimulate: the plot is discovered: the hour has arrived. Blood will flow or the tree of liberty which we are going to plant will flourish in peace."

He asked if the enemies of the country imagined that the men of the 14th of July were asleep. If so, their awakening would be terrible, for the immortal declaration of the rights of man was too profoundly graven on their hearts.

He insisted that it was time to put article two into execution. He called upon them to imitate Cicero, who in open senate exposed the perfidious machinations of Catiline. "You have men animated with the sacred fire of patriotism: let them speak and let us act." He said they had always believed that their union was their strength and that union should exist essentially among the legislators, that when discussing the interests of the state the legislator's heart should be single to it and inaccessible to any individual interest. "Will this image of the country—the only

out talent and without ideas. Neither is it certain who drew the petition up. *L'indicateur*, No. XXXIII, a daily newspaper of the time, stated in the issue of June 21, 1792, that Lasource in concert with Brissot drew it up but it offered no proof and as we have seen above there is no other evidence connecting these men with the movement.

divinity that he is permitted to worship—find in its temple, those rebellious to its cult? Let them name themselves the friends of arbitrary power. Let them purge the earth of liberty. Let them go to Coblenz to join the *émigrés*. . . . There they can plot without regrets; there they will conspire against their country which will never fear.”

These, he said, were the words Cicero spoke when he pressed the traitor Catiline to join the camp of traitors to the country. He urged the assembly to execute the constitution and wish of the people who perish in their defense. He said it was time for the French people to show themselves worthy of the character that they had assumed, that they had broken down prejudice and intended to remain free, intended to deliver themselves from tyrants leagued against them. Then he added, “You know the tyrants. Do not yield before them.”

After these preliminaries of a general nature, three causes for complaint can be clearly distinguished: first, the dismissal of the patriotic ministers; second, the inaction of the armies and their progressive destruction; third, the inaction of the high national courts.

Speaking of the dismissal of the ministers, he said, “The executive power is not in accord with you. We wish no other proof than the dismissal of the patriotic ministers. Does the welfare of a free people depend upon the caprice of a king?” He added, “We complain of the inaction of our armies. We ask that you seek the cause. If it comes from the executive power, let it be annihilated. The blood of patriots ought not to flow to satisfy the pride and ambition of the perfidious château of the Tuileries. . . . Shall we see our armies perish gradually? . . . If the executive power does not act there is but one alternative; you should assume it; one man alone ought not to influence the will of twenty-five million men. . . . We complain, finally, of the delays of the high national court. You have given it the sword of the law. Why does it delay in making it fall upon the head of criminals? . . . The people were forced at the crisis of July 14 to take this sword into their own hands and avenge with one blow the outraged law and punish the criminals.” He asked

for the permanence of the armies until the constitution should be carried into effect. He closed by saying, "This petition is not only that of the inhabitants of the faubourg Saint-Antoine, but of all sections of the capital and of the environs of Paris. The petitioners ask the honor of marching before you."¹⁴⁸

The reading of this petition, which has been called "a veritable declaration of war on royalty,"¹⁴⁹ was frequently interrupted by applause and at the close there was applause from the galleries and members attempted to speak, but the president, Française de Nantes, responded: "Citizens, the national assembly and the people are one; we desire your interests, your welfare and your liberty, but we also desire the law and the constitution. The representatives of twenty-four million men assure you through me that we will baffle the plots of conspirators, that we will deliver ourselves to the sword of the law, but that the laws alone have the right to avenge the nation and that it is only in them that you will find the constitution and the liberty that you seek. The assembly invites you in the name of respect for the laws and the administrative bodies, in the name of the country and of liberty, which we cherish and which we have resolved to defend at the peril of our lives, . . . to attend its session."¹⁵⁰ The petitioners crossed the hall amid applause of the galleries and a part of the assembly.

It was now a question of admitting the procession. Dubayet tried to get the floor, but the assembly refused to hear him. The president tried several times to put the question, but there were protests from members who did not wish to admit the crowd. Finally Dumas said, "Out of respect for our oath and for the

¹⁴⁸ The identical text of this petition is found in the *Moniteur*, XII, 717, *Révolutions de Paris*, XII, 550-52, *Journal de l'assemblée nationale*, XXI, 310-14, and *Journal des débats et décrets*, No. 267, p. 269.

¹⁴⁹ Ternaux, I, 180.

¹⁵⁰ *Journal de l'assemblée nationale*, XXI, 314; *Moniteur*, XII, 717. The *Journal des débats et décrets* is not quite so full as the first two. It also mentions interruptions by some members who did not want the deputation admitted. But since the first two named are daily newspapers and therefore probably independent and agree in the fuller account, I have followed them.

honor of the national assembly, I ask for the previous question upon the admission of armed citizens." The assembly voted that the citizens of the faubourgs Saint-Antoine and Saint-Marcel be allowed to cross the hall. "Very well then," cried Girardin, "I ask for the previous question on all the laws of the realm."¹⁵¹

But the assembly seemed to blow hot and cold with the same breath; while it admitted the procession, it expressed its disapproval of illegal acts. For now another deputation of two battalions from the department of the Gironde, called to the frontier for the defense of the country, presented itself, and being admitted to the assembly read a petition which has been called "the petition of order."¹⁵² It made no attack upon the executive, but presented its homage to the assembly. It expressed satisfaction that the time had arrived when it could prove its courage and fidelity, adding, "Life is not the greatest sacrifice for free men." Here the assembly applauded. The orator continued, "Our oaths are dearer than life; they are based upon the noblest sentiments that can animate the human heart, the love of country and of law. That which we will never forget is that the laws ought always to be present in our memories and dear to our hearts; that the *military force is essentially obedient* [great applause]; that whatever our rank none of us should question our order before obeying it [applause]; that in a free country every citizen from the soldier to the general ought to march straight to the enemy without looking backward." [Renewed applause.] The assembly voted that this discourse should be printed, that it should receive honorable mention in the *procès-verbal* and that copies be sent to the eighty-three departments. Montant humorously suggested that a copy be sent to Lafayette.¹⁵³

The sound of drums and music announced the arrival of the

¹⁵¹ *Journal de l'assemblée nationale*, XXI, 315; *Moniteur*, XII, 717; *Journal des débats et décrets*, No. 267, p. 272.

¹⁵² Louis Blanc, VIII, 60.

¹⁵³ *Journal de l'assemblée nationale*, XXI, 316; *Moniteur*, XII, 718; *Journal des débats et décrets*, No. 267, p. 273. Montant's name is given in the *Moniteur* and in *Le patriote français*, No. 1046, p. 690 but not in the other papers.

procession. The demonstrators entered, preceded by military music. Santerre and Saint Huruge directed their march and they crossed the hall to the tune of *Ça ira*.¹⁵⁴ *Le mercure universel*, June 21, 1792, gives the following description of the procession as it marched through the assembly:

"The petitioners marched; women, children, wearing liberty caps and carrying branches of trees, tricolored ribbons and a banner upon which was written: 'Tyrants, you dare to drive out our pikes, return to the law or tremble.' There followed grenadiers, armed national guards, citizens with pikes, women with sabers; all were intermingled, fraternally united, presenting only a mass of citizens. In the midst of these imposing groups two tables of the form of those of Mount Sinai were religiously supported; on these was written the sublime declaration of rights. The cries of 'Liberty,' the emblems, the caps, the ribbons, and these inscriptions a thousand times repeated: 'The constitution! Live free or die! The constitution or death!,' the green branches, flowers, applause redoubled without ceasing, the noise of military music, all presented a sort of rare spectacle, where one part of the people dared to reclaim its rights against those who constitutionally wished to enslave it. We shall not speak of numerous and varied groups of women, children, grenadiers, market porters, charcoal burners, priests with swords and guns, and *invalides*. We shall say less still of singular caricatures such as *sans-culottes* held aloft on pikes. Nor shall we speak of the caprice of arms; we saw long and very long pikes, forks, scythes, axes, clubs, great saws, large daggers, etc. But let us say that the flags of various sections and this forest of pikes and bayonets which filled the hall presented a singularity very shocking for some people and less disagreeable for others. A great banner, the ribbons held in women's hands, contained these words: 'Liberty! Tyrants, tremble; the French are armed!' On the other side was written 'Equality. Reunion of the Faubourgs Saint-Antoine and Saint-Marceau.' Another banner bore these words: 'When the country is in danger, all the *sans-culottes* are alert.' And on the other side you read: 'Tremble tyrants, your reign approaches its end.'¹⁵⁵

As they moved on, some danced, some shouted, "Long live the patriots! long live the *sans-culottes*! down with the veto!" In the procession there were carried two emblems, one a pair of old knee breeches with the inscription, "Long live the *sans-culottes*,"

¹⁵⁴ *Ibid.*

¹⁵⁵ *Le mercure universel*, June 21, 1792.

and the other a heart of a calf, marked, "The heart of an aristocrat."¹⁵⁶

The procession, which has been estimated at twenty thousand people, occupied about one hour and a half in passing, entering by the door of the Feuillants and going out by the court of the *manège* at the other end of the building.¹⁵⁷ When it had passed, Santerre returned to the bar of the assembly and said that the citizens of the faubourg Saint-Antoine offered their lives for the defense of the country and presented a flag as a mark of appreciation of the kindness shown them. The president accepted it and the assembly adjourned at half past three o'clock.¹⁵⁸

On learning of the march of the multitude, measures were taken by the commandant to guard the château. A number of battalions arrived at the Tuileries about one o'clock. Ten were placed in the garden upon the terrace before the château, two upon the terrace on the side of the river, five upon the Place du Carrousel, one guarding the gate to prevent entrance there, and four upon the Place Louis XV to guard the orangery. Inside was one battalion, the guard going off duty and the one relieving, and one hundred gendarmes.¹⁵⁹

¹⁵⁶ *Moniteur*, XII, 718; *Journal de l'assemblée nationale*, XXI, 317; *Journal des débats et décrets*, No. 267, p. 274; a spectator in the galleries wrote that this was a most impressive scene, that every one stood up and that the people showed a true majesty, *Journal d'une bourgeoise*, June 20, 1792.

¹⁵⁷ Roederer, *Chronique de cinquante jours*, 35; *Lettre de Ph-Ch-Ai Goupilleau, député de la Vendée*, Paris, June 20, 1792, eleven p. m. Madame Tourzelle ("Recit de ce qui s'est passé à la journée du 20 juin") who was in the château says the time was two hours and a quarter.

¹⁵⁸ *Journal de l'assemblée nationale*, XXI, 317; *Journal des débats et décrets*, No. 267, p. 274; *Moniteur*, XII, 718. The *Moniteur* says the assembly adjourned at four o'clock but the other two papers say half past three. Goupilleau, a deputy, also says half past three. "Lettre de Goupilleau," June 20, 1792, eleven p. m.

¹⁵⁹ "Rapport que fait M. de Romainvilliers;" Paroy, *Mémoires*. The reports of officers on duty at the Tuileries show that some attempt was made by the commandant to guard the premises. See reports of Perre, Aclocq, Lagarde, Carle, Rulhière, Lassus, Leclerc, Mandat, Pinon and Musery. Bourcet, an eye witness of this scene, states that there were also cannon and guards placed on the terrace, *Révolution française*, XVII, 73;

The procession on leaving the assembly hall by the door leading into the court of the *manège*, could have retired by either of two routes. It could have followed the long, narrow passageway leading out to the rue Saint-Honoré, or it could have broken through the gate which, at the end of the court, led to the garden of the Tuileries, passed along the façade of the château and out by the gate of the Pont Royal to the quays beyond. It chose the latter route.¹⁰⁰

The crowd moving on to the end of the court of the *manège* forced the gate of the Dauphin leading to the terrace which extended along the façade of the château.¹⁰¹ Mouchet was stationed at this gate, exhorting the national guards to remove their bayonets and directing the march. He was approached by Desmousseaux, substitute for the procureur of the commune, accompanied by Cousin, a municipal officer. Desmousseaux asked him to remove his scarf, because he thought he was compromising his official dignity by fraternizing too freely with the crowd. Mouchet did so.¹⁰²

Battalions of national guards were ranged along the façade of the Tuileries, forming a military front, and the crowd passed before them. The march was peaceable and orderly and the people were joyous. There were some cries of "Long live the nation," "Down with the veto," some gross expressions and some menaces as they passed under the king's window. These menaces did not, however, represent the spirit of the crowd, but were uttered by

Goupilleau, a deputy, who crossed the Carrousel says there were guards and cannon there. "Lettre de Ph-Ch-Ai Goupilleau."

¹⁰⁰ See map, Brette, *Histoire des édifices où ont siégé les assemblés*, 159; also Roederer, *Chronique de cinquante jours*, 38-40.

¹⁰¹ See map as above and Roederer, 40; "Rapport du chef de la deuxième légion" [Aclocq.]

¹⁰² "Déclaration du sieur Desmousseaux;" "Procès-verbal dressé par M. Mouchet." Mouchet played a very active rôle on the 20th of June according to many witnesses. He was popular and could influence the crowd. He is described as "small, brown and bandy-legged," "Déclaration de Turot," "Déclaration de Mussery." After the 10th of August, when he played a rôle at the Hôtel de Ville, he disappears from history. He was a contractor and captain of grenadiers. See *L'almanach royal de 1792*.

individuals who could be easily counted.¹⁶³ One little incident disturbed the march for a moment. A street vender selling tri-colored bands with the word constitution upon them dropped them and for a minute it was thought they were thrown from the window of the château. Through the efforts of Patris, a municipal officer, the goods were restored to the owner and the agitation subsided.¹⁶⁴ As the procession passed before the battalions, ranged on the terrace, some persons requested the guard to remove their bayonets. Several did so and others refused, all probably acting according to their sympathies.¹⁶⁵

Seeing the cortège passing out by the gate of the Pont Royal to the quay beyond, it was believed, both in the château and by the spectators outside, that the crowd would disperse and go to their homes. So apparent did this seem that some of the municipal officers left the scene. Desmousseaux went home and Cousin went to the Academy of Sciences to which he belonged. Champion took Borie and Leroux home with him to dinner.¹⁶⁶

But the crowd instead of continuing its march along the quay of the Louvre stopped when it reached the gate of the Louvre, called also the gate of the Carrousel. On each side of this large gate there was a small gate. These were known as the new gates and the one on the side of the château was called the *Porte*

¹⁶³ "Déclaration du chef de la sixième légion" [De La Chesnaye;] "Procès-verbal dressé par M. Borie;" "Procès-verbal dressé par M. Hû;" "Procès-verbal dressé par M. Patris;" "Déclaration de J. J. Leroux." Leroux, upon whose account alone Ternaux bases his statement, says the cries were, "Long live the sans-culottes", "Down with the King", "Down with the Queen" and that there were heard the greatest insults, menacing talk and frightful threats but he is not supported in this statement by any other witness. Yet in addition to this he says that the great mass of the crowd was peaceable and had no bad intentions. Leroux was one of the municipal officers who were not summoned to the mayor's office early enough to vote on the municipal decree of the morning and was not one of the men that Pétion had officially sent to the Tuileries. His attitude is not sympathetic toward the crowd.

¹⁶⁴ "Procès-verbal dressé par Patris;" "Procès-verbal dressé par Hû."

¹⁶⁵ "Procès-verbal dressé par Mouchet."

¹⁶⁶ "Déclaration du sieur Desmousseaux;" "Procès-verbal dressé par Champion;" "Procès-verbal dressé par Borie;" "Procès-verbal dressé par Leroux."

Marigny. All three faced the river and opened on the Place du Carrousel. These were guarded by detachments of the battalions Petits-Perès and Petit Saint-Antoine under command of Perrè and Mussery with orders to prevent armed citizens from entering.¹⁶⁷ The guard at first resisted the crowd which tried to enter the gates. But when two municipal officers—the one (Mouchet) “little, brown and bandy-legged”—presented themselves at the head of a group at the Porte Marigny,¹⁶⁸ the guard allowed the column to enter. Mouchet insisted that they meant only to cross the Carrousel.¹⁶⁹ When this group had passed, the guards again defended the entrance against the crowd. Soon Hû and Patris, two municipal officers who had been ordered to the gate of the Louvre by a superior officer, arrived. They had been told there was some trouble in the attempted execution of an order. When they asked him what the order was, he replied, “Allow all persons armed, in whatever manner, to enter, but do not admit any unarmed.” This seemed an unreasonable order and directly opposed to that which the national guards had received, but the officers executed it and then all entered, armed and unarmed alike, rushing in like a torrent in spite of the national guards.¹⁷⁰

At the beginning of the march through the assembly, Saint-Prix, commandant of the battalion Val-de-Grâce, who we saw was forced to march with the citizens when they set out from the

¹⁶⁷ Lagarde, “Rapport de l'événement” etc.; “Déclaration de Perrè.”

¹⁶⁸ “Procès-verbal dressé par Mouchet.”

¹⁶⁹ “Déclarations reçus par le juge de la paix de la section du Roi de Sicile,” signed by Turot, Mussery and five of Mussery's subordinates. These men all speak of the physical infirmity of Mouchet and of his being so small that his scarf dragged in the dust. Lagard, *Adj. Gen.* of the 4th legion says that he was small with a spiritless, thin face. “Rapport de l'événement.”

¹⁷⁰ Same as above. Also “Déclaration de Perrè”; “Déclaration du sieur Desmousseaux”; “Procès-verbal dressé par Patris;” “Procès-verbal dressé par Hû;” “Rapport du chef de quatrième légion” [Mandat]; Roederer in a report to the department read in the assembly, July 6, 1792, says that the accusation that two municipal officers gave the order to admit all armed citizens is absurd and contradicted by the facts, *Histoire parlementaire*, XV, 424. But Hû and Patris themselves say they received such an order and executed it.

faubourg Saint-Marcel, gave the order to the captain of cannoners to go with his two cannon and his artillerymen to the Place du Carrousel, which was no part of the royal courts, and from there join the procession upon the quay after it had passed out of the Tuileries garden. They had been admitted without resistance into the Carrousel.¹⁷¹ Alexandre had sent his cannon to the same place also, to await in front of the Hôtel de Longueville the march of the crowd through the assembly.¹⁷² Perhaps the absence of these cannon induced the officers to give the unusual order to allow all armed persons to enter the Carrousel, to which reference has been made.

The Carrousel was soon filled, it being a small place in 1792, and much encumbered with buildings. It bordered on the courts which extended the entire length of the rear of the château. There were three of these courts, separated by walls seven or eight feet high. The one in the middle was called the Cour Royale, that on the side of the river the Cour des Princes and that on the side of the rue Saint-Honoré the Cour des Suisses.¹⁷³ Sentinels were stationed in the watch towers of the Royal gate about noon, with orders to let no one enter except by card and to allow no crowd to gather before the gate. About an hour later the order was changed to allow no one to enter with or without cards. At once, three municipal officers presented themselves at the gate asking admission. The guards refused, but immediately some one from the château let them in.¹⁷⁴ The crowd seemed confused, but peaceable and showed no signs of entering the château. They had crossed the Carrousel to the rue Saint-Nicaise as if to go out by the rue Saint-Honoré. Colonel Rulhière who had been stationel with two squadrons of gendarmerie in front of the

¹⁷¹ "Rapport de Saint-Prix"; "Déclaration de LaChesneye." Oelsner in *Revue historique*, LXXXVII, 81.

¹⁷² "Rapport d'Alexandre." The reports of Saint-Prix and Alexandre indicate that the Hôtel de Longueville was a general rendezvous for artillery. See also "Procès-verbal dressé par Mouchet."

¹⁷³ See map in Brette, 159; also, Berty, *Topographie historique du vieux Paris*, I, 280, and large map at end of volume.

¹⁷⁴ "Rapport de Pierre Moiteaux"; "Rapport de Jean Forêt"; "Déclaration de Bron," Swiss guard at the Royal gate.

Fuilleries facing the Hôtel de Longueville, believing that the danger was passed, dismounted and entered the Cour Royale, where he remained a few minutes talking with another officer.¹⁷⁵ Suddenly the crowd stopped, uttered confused cries and began a movement toward the Cour Royale, at about one-thirty. A group of forty people presented itself at the gate of this court demanding entrance to the château. It was opposed by the guards. According to Marotte, a guard on horseback, they said, "We wish to enter and we will enter; we mean no harm to the king and no one shall prevent us from going to him."¹⁷⁶ The guards resisted and the group retired, some making menacing movements with guns or pikes. Soon another group presented itself, but the guards closed the gate.¹⁷⁷

About three o'clock, the chief of the second legion, Aelocq, who was in the Cour Royale, asked the municipal officers, Mouchet, Boucher-Saint-Sauveur and Boucher-René, who had just returned from their audience with the king and were also in the Cour Royale, to request the citizens in the Carrousel to delegate twenty persons, unarmed, to present the petition to the king. He assured them that they would be well received and that he would lead them. The officers stepped to the grating and addressed the crowd. They urged them not to enter the king's palace armed and said that the court was a part of the king's dwelling. They said the king would receive their petition in the form prescribed by law. Let them send twenty unarmed petitioners to enter alone. The petitioners entered and the gate was closed.¹⁷⁸

¹⁷⁵ Rulhière, "Événements de la journée du 20 juin, 1792."

¹⁷⁶ "Rapport de Louis Marotte."

¹⁷⁷ "Rapport de Pierre Moiteaux;" "Rapport de Jean Foret;" "Rapport de Louis Marotte."

¹⁷⁸ "Rapport du chef de la deuxième légion" [Aelocq]; Rulhière, "Événements de la journée du 20 juin, 1792"; "Procès-verbal dressé par Mouchet"; "Rapport de Pinon"; "Procès-verbal dressé par Boucher-René"; "Rapport de Lassus"; the evidence is not clear here. Lassus who was guarding the gate says about thirty people entered and his troops closed the gate. Boucher-René says Saint-Sauveur closed the gate but says nothing of the deputation entering. Aelocq says he led the petitioners to the king. Pinon says Aelocq and two municipal officers were at the door when it was opened and a group entered.

As the gate closed, Boucher-René says he was pushed inside and separated from his colleagues. Mouchet outside now mingled with the crowd. He heard cries and noticed a commotion at the side of the Hôtel d'Elbeuf. It was reported that cannon were pointed at the people. Mouchet tells us that he rushed to the place and assured the people that this was a false alarm. He said the cannoneers were incapable of such a hostile act and that he had heard them express very patriotic sentiments and that they were devoted to the cause of the people. He said he would guarantee upon his life that the report was false. Thus the people were reassured.¹⁷⁹ But there were cannon at the door of the château and also at the Hôtel de Longueville opposite and there were chests of ammunition on the Carrousel.¹⁸⁰

Romainvilliers seems to have remained wholly inactive during all this movement. His inactivity is attested by all his subordinates. He was on the terrace, in the Carrousel, or wherever the crowd was. The chiefs of the legions, Aclocq, Mandat and Pinon and Vanot, commandant of the battalion Saint-Opportune, either could not find him or, if they found him, could get no orders from him. Nor could the commandant at the Tuileries get orders.¹⁸¹ These men, however, showed great activity in preventing entrance to the château and so did some of their subordinates, who were also unable to get orders from the commandant. All were equally powerless to enforce their own orders. When Lassus, a captain of gendarmerie, asked his colonel, Rulhière, for orders, he replied, "I have no orders, but I believe that the troops are here to support the national guard." Carle, a lieutenant colonel, says he asked Romainvilliers what he should do with his two hundred men. The commandant replied, "It is necessary to take away their bayonets." Carle retorted, "Why do you not order me to give up my sword and my clothes?" and

¹⁷⁹ "Procès-verbal dressé par Boucher-René;" "Rapport de Lagarde"; "Procès-verbal dressé par Mouchet."

¹⁸⁰ "Rapport de M. Lassus"; Poullenoit to Pétion, June 23, 1792; "Rapport de Lagarde"; "Déclaration de Mussery"; Oelsner in *Revue historique*, No. 87, p. 81.

¹⁸¹ "Rapport de Aclocq"; "Rapport de Pinon"; "Rapport de Mandat"; "Procès-verbal de Wittinghof," Ternaux, I, 404.

the commandant said, "Take what I say only as an opinion."¹⁸² Romainvilliers justified himself afterward by saying that the mayor having permitted, and the king not having refused a request for twenty unarmed petitioners to enter the château and he having received this assurance from six municipal officers in the garden, he did not think he ought to oppose their escorts.¹⁸³

Besides national guards, there were also some regular troops on the Carrousel at this time. These had been ordered by the commandant of war to the Place Vendôme in the morning to be reviewed. About eleven o'clock two detachments were led by Wittinghof, commandant at the Tuileries, to the Carrousel.¹⁸⁴

Within the court there was anxiety among some of the national guards and when the royal gate was menaced there was a cry, "To arms," and the troops formed in line.¹⁸⁵

This sudden movement toward the château seems to have been caused by the actions of its leaders. Saint-Prix, on setting out from the assembly where the battalion Val-de-Grâce had taken him by force, attempted to rally his men and to take back from the Carrousel the cannon which were ranged along the Hôtel de Longueville. His cannoneers refused to obey his order. Leclerc, the second in command, repeated the order. Again they refused. The battalion dragged its chief before the Carrousel, and took a position near the cannon. Saint-Prix tried to calm them. He gave orders to the cannoneer to take the pieces in front of the column and march back to the Gobelins. He refused, crying, "We will not go away, we have not come here for nothing, the

¹⁸² "Rapport de Lagarde"; "Rapport de Saint-Prix"; Carle, "Événements de la 20 juin, 1792"; "Rapport de Lassus."

¹⁸³ "Rapport que fait M. de Romainvilliers"; Montmorin writing to La Marck, June 21, (*Correspondance*, Mirabeau et La Marck) says Romainvilliers was sold to a faction. There was a good deal of sentiment against Romainvilliers for his inactivity on this occasion. On June 28 the section of the Tuileries passed a decree asking the national assembly to dismiss him from service because he had forfeited the public confidence. The decree is found in Archives nationales, F⁷4590.

¹⁸⁴ "Rapport de Lassus"; Rulhière, "Événements de la journée de 20 juin, 1792."

¹⁸⁵ "Déclaration de Guibout"; Bourcet in *Révolution française*, XVII, 73.

Carrousel is forced, the château must be too . . .," and, pointing to the château, he cried "Come with me, cannoneers, straight to the enemy," and they planted the cannon in front of the Royal gate.¹⁸⁶

With this movement the crowd massed itself against the Royal gate. The agitation became extreme and there seemed nothing to do but to fire the cannon, when some one from within called, "Do not fire, we will open!" Immediately some one raised the iron bolt that fastened the two parts of the double gate together, the gate swung open and the crowd—citizens, national guards, and gendarmes—precipitated itself madly into the Cour Royale. It was a torrent impossible to check.¹⁸⁷ A spectator testified that having once mingled with the crowd he was carried on into the court in spite of himself.¹⁸⁸

There remained still another means of checking the crowd, but again there was a refusal to obey orders. At the opposite end of the court, under the vault leading to the grand stairway, there was another gate. The chiefs of the legion, Aclocq, Mandat and Pinon and Vanot, commandant in chief of the first battalion of the fourth legion, requested the guards and the cannoneers to

¹⁸⁶ "Rapport de Saint-Prix"; "Rapport de Lassus."

¹⁸⁷ It is not clear, from the evidence, who opened the gate or who gave the order to open it. No one seems to be willing to accept the responsibility of the act. Many witnesses outside simply say the gate was opened. "Procès-verbal dressé par Mouchet"; Carle, "Événements du 20 juin, 1792"; Rulhière, "Événements de la journée du 20 juin"; "Rapport que fait M. de Romainvilliers." Lassus, "Rapport de Lassus," also outside, says it was opened by guards and Wittinghof, "Déclaration de Wittinghof," (Ternaux, I, 404), outside, says Hù and Patris ordered it opened. This Patris emphatically denies. See "Procès-verbal dressé par Patris." We have but two witnesses inside, Bron, a Swiss guard, and Boucher-René, municipal officer. Bron says two municipal officers opened it, Boucher-René says cannoneers raised the bolt, and Roederer in his report to the department in July says a grenadier raised it. It is thus seen that there is no agreement among the witnesses. According to Laporte, intendant of the civil list, who made inquiry of all the Swiss guards, the Royal gate was the only one forced, the gate of the Princes and of the Swiss not being entered. Laporte to Terrier, June 27, 1792.

¹⁸⁸ Oelsner, *Revue historique*, LXXXVII, 81.

close it. They were insulted and ill treated. Pinon cried, "Are you sure that there will not be some one in the crowd capable of attacking the king?" But the cannoneers answered, "It is better that one man should be killed than we."¹⁸⁹ The adjutant general of the fourth legion, Lagarde, called to his grenadiers at the windows of the hall of guards, and cried, "To arms!" but they refused to obey and passed out of the building by another door.¹⁹⁰

The crowd advanced with such violence that the cannon of Val-de-Grâce was carried on into the château and up the stairs as far as the hall of the Swiss, but here it was caught in the doorway and obstructed the passage. The crowd became impatient and furious when municipal officers (Boucher-René and Mouchet) reproaching the cannoneers for their zeal, ordered that the frame be cut away and the cannon was carried back to the foot of the stairs, where it remained till the château was evacuated. Boucher-René says he told the people that their violence would undo all the effect of their petition to the king.¹⁹¹ There was no resistance now against the crowd, not a man for defense, not a national guard at his post, not a door barricaded or locked. The gendarmes in the court remained quiet spectators of the invasion and after the crowd had entered the château, the gendarmes in the Carrousel raised their hats on their swords crying, "*Vive la nation!*"¹⁹²

The crowd pushed through two apartments and to the door of the third called the *aix-de-bauf*. Aclocq, chief of the second legion of national guards, says that on seeing the situation he rushed to the king's chamber by the stairway of the Cour des Princes, at the same time asking Boivins, adjutant general of the fourth

¹⁸⁹ "Rapport de Pinon."

¹⁹⁰ Lagarde, "Rapport de l'événement."

¹⁹¹ Saint-Prix, "Rapport de ce qui s'est passé dans le bataillon du Val-de-Grâce"; "Procès-verbal dressé par Boucher-René"; "Procès-verbal dressé par Mouchet"; Procès-verbal dressé par Borie."

¹⁹² Roederer, 45; "Procès-verbal dressé par Patris"; Bourcet in *Révolution française* XVII, 73; "Déposition de Rougeville"; Montmorin to La Marck June 21, 1792. Rougeville relates that at this moment he met Romainvilliers, pale and distracted, crying, "All is lost! we are betrayed!"

legion, to send help to the apartments. He knocked and, giving his name, declared he wished to stay by the side of the king and save him. He was admitted.¹⁹³ At the same time Bourcet who, by way of another stairway, had rushed to the king, reached his chamber with a few national guards. They found the king, the queen, and the prince royal, Madame Royale and Madame Elizabeth.¹⁹⁴ Aclocq says he hastened to the king, seized him by the waist and insisted that it was necessary for him to present himself to the crowd. Then, grasping his majesty's hand, he swore to perish rather than see him insulted. The king at once consented.¹⁹⁵ With Aclocq and Bourcet, he passed to his cabinet, on through his bed chamber and thence into the *ail-de-bœuf*. He was accompanied by Madame Elizabeth, who heroically refused to leave her brother, and by his three ministers, Beaulieu, Lajard, and Terrier.¹⁹⁶ In the *ail-de-bœuf* the king was joined by Marshal Mouchy, the gendarmes D'Hervilly and Canolle, Guinguerlot and Vinfrains, officers of gendarmerie, LaChesnaye, the chief of the sixth legion, and some volunteers of the national guard, Fontaine, Gossé, Bidaut, Lecrosnier and Guibout.¹⁹⁷ The guards all testify to the little protection that the king had. Aclocq took the king's

¹⁹³ "Rapport d'Aclocq." Aclocq is much praised by other witnesses for his devotion this day. Cf. Paroy, *Mémoires*, 298.

¹⁹⁴ "Rapport d'Aclocq"; Bourcet in *Révolution française*, XVII, 73.

¹⁹⁵ "Rapport d'Aclocq"; "Déclaration de Fontaine"; Paroy, *Mémoires*, 300. The statement that Aclocq told the king that it was necessary to present himself to the people is supported by Fontaine. The other evidence of demonstrative affection is Aclocq's, supported by Paroy, a friend of the king and queen. In the Archives nationales (C 222, 160¹⁵²) is a letter from Bourcet to the king, dated July 9, 1792, recalling his devotion.

¹⁹⁶ "Rapport d'Aclocq"; Bourcet in *Révolution française*, XVII, 73; "Déclaration de Fontaine." Madame Elizabeth's presence by the side of the king is not mentioned by Bourcet, but it is by Aclocq and Fontaine. She is likewise mentioned in the "Déclaration de Lecrosnier," in the "Déclaration de Guinguerlot," and in the "Déposition de Rougeville."

¹⁹⁷ "Rapport d'Aclocq"; Bourcet in *Révolution française*, XVII, 73; "Déclaration de Guinguerlot"; "Déclaration de LaChesnaye"; "Déclaration de Fontaine"; "Déclaration de Lecrosnier"; "Déclaration de Bidaut"; "Déclaration de Gossé"; "Déclaration de Guibout;" Report of Niquille and Gautier to the police in the Archives nationales, F^o4387.

right arm and Bourcet his left, and remained with him throughout his ordeal.¹⁹⁸ Meanwhile heavy blows fell upon the door from without and a panel was forced in. The king cried, "To me, four grenadiers of the national guard!"¹⁹⁹ and they rushed to his side. A grenadier said, "Sire, have no fear," and the king, heroic for the first time in his life, replied, "I have no fear; put your hand upon my heart; it is pure and quiet," and taking the hand of the grenadier, he put it upon his breast.²⁰⁰ Gossé testifies that Madame Elizabeth, with tears in her eyes, begged the grenadiers to save the king.²⁰¹ As the tumult outside the door increased, the guards and officers surrounding the king drew their swords for his defense, but Aclocq ordered them to sheath their weapons,

¹⁹⁸ "Rapport d'Aclocq"; Bourcet in *Révolution française*, XVII, 73. In the year 1816, two pamphlets appeared written by Joly and Drouet respectively, in which both say they were guards with the king on this occasion. Joly, *Note historique sur la journée du 20 juin, 1792*, says he was on the king's right. Drouet, *Note sur les événements de la journée du 20 juin, 1792*, says he held the king's right arm and that Joly was on the left. No other accounts mention these men and their claims contradict the contemporary evidence.

¹⁹⁹ "Déclaration de Gossé"; "Déclaration de Guingerlot." The exact words are from Gossé. The same wording is found in a letter written June 21, by a former member of the estates general who was present in the king's apartments. The letter is unsigned, quoted in Weber, *Mémoires*, II, 170-05. The incident is mentioned by Guingerlot. The four grenadiers, Lecrosnier, Gossé, Bidaut and Guibout, have left their declarations. Another grenadier who was with the king on this day was Tupin, as is seen by certificates of fidelity given him in July by Aclocq, Mandat and D'Hervilly stating that he did not leave the king's side on this occasion. Tupin used these certificates in asking the king for a position. See the certificates in Archives nationales, F^r4390.

²⁰⁰ "Déclaration de LaChesnaye"; Bourcet in *Révolution française*, XVII, 73; "Déposition de Rougeville"; "Bulletin avec détails sur ce qui s'est passé aux Tuileries le 20 juin, 1792," Klinckowström, II, 303. A pamphlet of the time, *Récit exact et circonstancié de ce qui s'est passé au château des Tuileries le 20 juin, 1792*, says this grenadier was Gossé, but Gossé does not mention the incident in his declaration. The pamphlet is anonymous, but is an extract from the *Gazette de Paris* by Durosoy. It states that it follows the notes of an eye-witness.

²⁰¹ "Déclaration de Gossé."

assuring them that their zeal would only endanger the life of the king. They obeyed promptly.²⁰²

The door was ordered opened, the bolts being drawn by a Swiss guard, and twenty or thirty people rushed in.²⁰³ It is reported that one of the first who entered was armed with a sword blade fastened to a pole and that he tried to attack the king. Another carried a saber and a pistol.²⁰⁴ Aclocq states that he cried out, "Citizens, recognize your king, respect him; the law commands you to do it. I will perish, we will all perish rather than allow the least harm to be done to him." Then he says, "At these words, uttered in a firm voice, the crowd stopped."²⁰⁵ One of the grenadiers, M. Cannolle, cried out, "Long live the nation! Long live the king!" but no one answered.²⁰⁶ During this pause of a few minutes some one proposed to the king that he retire to a window recess where he could avoid the crowd and where he could be better seen by them. This he did at once and mounted a seat which he kept until the crowd passed out.²⁰⁷ Madame

²⁰² "Rapport d'Aclocq"; "Déclaration de Guingerlot"; Bourcet in *Révolution française*, XVII, 73; others say that the king ordered the sheathing of the weapons. *Récit exact et circonstancié de ce qui s'est passé au château des Tuileries, 20 juin, 1792*. This pamphlet claims to be based on the notes of an eye-witness who was at the side of the king. It was written after the 23d of June.

²⁰³ "Déclaration de Fontaine"; "Déclaration de LaChesnaye"; "Rapport d'Aclocq." Paroy, who remained guard at the king's door all night after this invasion, states (*Mémoires*, 303) that at daybreak he made a drawing of the room as it appeared at the time the king gave the order to open the door. The drawing has not been found.

²⁰⁴ "Déclaration de Lecrosnier."

²⁰⁵ "Rapport d'Aclocq"; "Bulletin avec détails sur ce qui s'est passé aux Tuileries le 20 juin, 1792," Klinckowström, II, 303; Letter unsigned dated June 21, quoted in Weber, *Mémoires*, II, 190.

²⁰⁶ "Rapport d'Aclocq." Cannolle is referred to as protecting the king in *Le cri de la douleur*, 15.

²⁰⁷ "Rapport d'Aclocq"; Bourcet in *Révolution française*, XVII, 73; "Déclaration de Gossé"; "Déclaration de Lecrosnier"; "Déclaration de Fontaine"; "Déclaration de LaChesnaye"; LaChesnaye is the only one of these witnesses who says the king retired to the window recess *before* the doors were ordered opened. The others give the incident just *after* the doors were opened.

Elizabeth remained with the king. When she was asked to retire she said, "I will not leave the king." Aclocq tells us that since the window recess in which the king sat was not large enough for both, he placed Madame Elizabeth in a window adjoining, with M. de Marsilly, but she was not able to remain long and went to join the queen.²⁰⁸ Six guards placed themselves in front of the king to protect him from the pressure of the crowd. Four were grenadiers, one a cannoneer and one an officer of *chasseurs*. The devoted Marshal Mouchy, in spite of his age, would not leave his lord for a moment.²⁰⁹

The crowd, armed with guns, pikes, clubs and sabers, advanced and soon filled the hall. Louis XVI, calm, tried to speak, saying, "What do you wish? I am your king. I have never turned aside from the constitution." One of the guards at his side testifies that the king waved his hat to the crowd crying, "*Vive la nation!*"²¹⁰ but his voice was drowned in cries of, "Down with the veto! Recall the patriotic ministers!"²¹¹

The hall was literally filled with a restless sea of heads, arms, guns, pikes and swords. One of the guards standing beside the king says that the heart of a calf marked, "Heart of an aristocrat," was carried aloft on the end of a fork and passed before

²⁰⁸ "Rapport d'Aclocq"; Aclocq is the only one of the guards who says that Madame Elizabeth was placed in a window recess, but Lecrosnier and Gossé speak of her accompanying the king to the *ôcil-de-bœuf*. Guingerlot also says she would not leave the king. See "Déclaration de Lecrosnier"; "Déclaration de Gossé"; "Déclaration de Guingerlot." Fontaine says she was led out of the hall before the doors were opened. Aclocq is the only guard who speaks of her after the doors were opened. His statement is borne out by "Bulletin avec détails sur de qui s'est passé aux Tuileries le 20 juin, 1792," Klinckowström, II, 303. Madame Tourzelle, who was with the queen, says Madame Elizabeth soon came back. See her *Récit* of June 22.

²⁰⁹ "Rapport d'Aclocq"; Bourcet in *Révolution française*, XVII, 73; "Déclaration de Guingerlot." Among these guards were Fontaine, Lecrosnier, Gossé, Bidaut and Guibout. See their declarations.

²¹⁰ "Déclaration de Fontaine"; "Déclaration de LaChesnaye"; "Procès-verbal dressé par Patris"; Bourcet in *Révolution française*, XVII, 73. The exact wording is that of Fontaine.

²¹¹ *Ibid.*, XVII, 73; "Déclaration de Guibout."

the eyes of the king.²¹² As the crowd surged in, curious to see royalty at home, asking, "Where are they? Where is he? Where is she?" menaces and imprecations were heard.²¹³ It was noted by the guards that one man in the crowd, dressed in a green waistcoat, was one of the executioners of 1789.²¹⁴ Another guard recognized Soudin, one of the besiegers of the Bastille, armed with gun and bayonet, advancing toward the king with threatening words and manner.²¹⁵ Still another guard described an individual about thirty-six years old, poorly dressed, saber in hand, making great efforts to reach the king and using the most abusive language.²¹⁶ A handsome young national guard, whom the king recognized as having been a member of his body guard, addressed horrible insults to him.²¹⁷ All these were forced back by the volunteer grenadiers who formed a guard before the king.²¹⁸

In the midst of this tumult the king remained remarkably tranquil, speaking calmly to each one who addressed him and protesting his loyalty to the constitution. It was believed by many of the witnesses that his *sang-froid* prevented greater violence.²¹⁹

²¹² "Déclaration de Guibout"; J. J. Leroux in his declaration says this emblem was carried along the terrace and was marked, "The heart of M. Veto." See also support for both of these statements in "Rapport fait au conseil du département par MM. Garnier, Leveillard et Demantort."

²¹³ "Déclaration de Guingerlot"; "Déposition de Rougeville."

²¹⁴ "Déclaration de Guibout"; "Déclaration de Guingerlot."

²¹⁵ "Déclaration de Guibout." Guibout states that Soudin had been driven from the battalion Saint-Opportune; that he had, at the beginning of the revolution, taken the heads of Berthier and Foulon at the morgue, washed them in a pail of water and given them to the people to carry on pikes.

²¹⁶ "Déclaration de Lecrosnier."

²¹⁷ Letter of Azéma, deputy of L'Aude to the legislative assembly written at eleven o'clock p. m. June 20, 1792. (*Révolution française*, XXVII, 172).

²¹⁸ This is stated by the guards around the king and is also repeated by the commissioners of the department in their report on the suspension of Pétion. "Rapport fait au conseil du département par MM. Garnier, Leveillard et Demantort."

²¹⁹ Bourcet in *Révolution française*, XVII, 76; "Extrait d'une lettre écrite de Paris en date du 21 juin à Dupin et fils à Montpellier," in *Revue historique de la révolution française*, II., 597; Oelsner in *Revue historique*, LXXXVII, 80; *Correspondance secrète inédite sur Louis XVI, Marie*

He also showed anxiety for his family, making inquiries now and then for the queen and his children.²²⁰

An incident is described here which has been often repeated by writers since that time, but for which our only evidence is the report of the commission appointed by the council of the department to investigate the events of the day. They do not state their authority. They say that after the tumult in the *vil-de-bœuf* had lasted an hour and none of the officers could make themselves heard, Legendre advanced toward the monarch and the noise ceased. "Monsieur," he began, pausing as the king showed surprise, "Yes, monsieur, hear us. You must hear us. You are a villain. You have always deceived us, you deceive us still. But take care! Your measure is full and people are weary of being your plaything." Then he read a petition full of menaces and reproaches, declaring that it expressed the wish of the sovereign people of whom he was the orator. The king remained calm, answering, "I will do what the constitution and the decrees have commanded me."²²¹ Again cries arose, more people constantly came in and the press became extreme.

Antoinette, la cour et la ville, 1777-1792, II, 604; *A Residence in France during the Years 1792, 1793, 1794, 1795*, 15; *Lettre de Goupilleau, député de la Vendée*, June 20, 11 p. m.; Azema in *Révolution française*, XXVII, 174; *Bulletin avec détails sur ce qui s'est passé aux Tuilleries le 20 juin, 1792*, Klinckowström, II, 303; *Ibid.*, II, 307.

²²⁰ Bourcet in *Révolution française*, XVII, 74; Letter of J. B. Mosneron to Louis XVIII, May 19, 1814, in *Revue d'histoire moderne et contemporaine*, XI, 115. Mosneron was a deputy and was with the king.

²²¹ "Rapport fait au conseil du département par MM. Garnier, Leveillard et Demantort, commissaires au sujet des événements du 20 juin, 1792." This report was made before July 6, 1792, and recommended the suspension of Pétion and Manuel and three municipal officers. Roederer gives the same incident, reproducing it from the report of the committee without citing his source. The incident is not found in any depositions, reports or *procès-verbaux*. Legendre is named by Lareynie in his declaration as encouraging Santerre and by the *Nouvelle correspondance politique*, June 22, XII, 3, as being near the king with his friends. The Abbé Lamar, "Les loisirs d'un curé déplacé," in *Pièces sur la révolution, journées fameuses*, III, 267, says he was present and calls him a Jacobin and a deputy. He was a member of the Jacobin club but was not a

The first municipal officer who came to the king's relief was Mouchet, wearing his scarf as a badge of office. Raised on the shoulders of two citizens, he approached the window in which the king sat. With voice and gesture he strove to gain silence, but his efforts were useless. He could make himself heard only by those near by. The king tried several times to speak, but his voice was lost in the tumult.²²² This situation lasted more than an hour, during which time the greatest confusion reigned. Shouts were sent up from the crowd and cries of "Down with the veto!" "Recall the ministers!" continued, while officers tried vainly to make themselves heard.²²³ During this period of uproar a number of incidents can be clearly distinguished which show the temper of the crowd.

A man carrying a red cap on the end of a pole moved toward the king. Several people inclined the pole in his direction. Mouchet took the cap and passed it on to the king who reached out for it, took it and put it on his head. At this strange spectacle, the crowd burst into applause, stamping, clapping their hands and crying, "Bravo!" "Long live the nation!" "Long live liberty!"

deputy. An unsigned letter written June 21 and quoted in Weber, (*Mémoires*, II, 179) states that Legendre offered the king the red cap. The same statement is found in the *Correspondence politique* of June 23, LXIII, 2, which says Legendre was the national guard who put the red hat on the king. It is clear from all this evidence that Legendre was present, but it is not clear what he did. He evidently did not play a prominent part. It is stated ("Extrait d'une lettre écrite de Paris en date du 21 juin à Dupin et fils à Montpellier") that the orator of the people said, "Sire, do you wish to be our king or not? If you do, enforce the constitution, the execution of which you alone have hindered. If you do not, you will be allowed to leave [France]. We will give you forty thousand men to accompany you to the frontiers. We will guarantee you your life until you leave the realm." This is not what Legendre is reported to have said. It may refer to the speech that the "blond young man" so often referred to, made to the king in Pétion's presence. The sentiment is similar. See below.

²²² "Procès-verbal dressé par Mouchet"; "Procès-verbal dressé par Patris"; Bourcet in *Révolution française*, XVII, 73; "Déclaration de Gossé"; "Déclaration de Fontaine."

²²³ "Procès-verbal dressé par Mouchet"; Bourcet in *Révolution française*, XVII, 73; "Déclaration de Guibout."

and even, "Long live the king!"²²⁴ A guard who stood beside Louis XVI says that threats were uttered against the king should he refuse to put the liberty cap on and threats of returning daily if he did not sign the decrees. But a municipal officer who was also present states that he did not think, judging from the disposition of the crowd, that if the king had not reached for the hat or been impressed with the idea of putting it on, that it would have been forced upon him.²²⁵ Mouchet says that a few minutes after this incident the king pointed out to him a woman who held a sword encircled with flowers and surmounted with ribbons. Mouchet signaled to her and she passed it on. He handed it to the king, who took it and brandished it amid enthusiastic cries of "Long live the nation!" The king repeated this cry. Then followed more cries for the recall of the veto and of the three ministers.²²⁶ The king made several attempts to speak, assuring the crowd that he had sworn to maintain the constitution and that he was sincerely attached to it.²²⁷

The crowd was still pressing in, cries succeeded cries, and the heat was extreme. Insulting language and abusive names were hurled at the king and threats were made to return daily, if he did not recall the veto.²²⁸ The guards were continually forcing back individuals who were trying to reach the king. A pock-marked individual, wearing a brown frock coat, armed with pistol and saber, kept crying, "Down with the veto! To the devil with the veto!" Another man dressed as a national guard, wearing yellow epaulets, and armed with a gun, menaced all who

²²⁴ "Procès-verbal dressé par Mouchet"; "Procès-verbal dressé par Patris"; "Déclaration de Fontaine"; "Déclaration de Guibout"; "Déclaration de Bidaut"; Bourcet in *Révolution française*, XVII, 73. It is interesting to note in this connection that Joly and Drouet, guards with the king, but who wrote their accounts twenty-five years later, both claim the honor of having taken the red hat from the pole and handing it to the king. Drouet, *Note sur les événements de la journée du 20 juin, 1792*; Joly, *Note historique sur la journée du 20 juin, 1792*.

²²⁵ "Déclaration de Bidaut"; "Procès-verbal dressé par Patris."

²²⁶ "Procès-verbal dressé par Mouchet."

²²⁷ *Ibid.*; "Procès-verbal dressé par Patris."

²²⁸ Oelsner in *Revue historique*, LXXXVII, 80; "Déclaration de Bidaut"

opposed him and uttered insulting words.²²⁹ A young man in a red waistcoat constantly shouted abusive words at the king, reproaching him bitterly for his conduct.²³⁰ A market porter, armed with a saber, during an hour made desperate efforts to reach the side of the king, but was forced back by the grenadiers.²³¹ Mouchet, who saw that this situation was not leading to anything, says he proposed to the king that he appear upon the terrace of his apartment and speak to the people where he might be heard, but those around him opposed this. However, an order was given to open the gallery and so evacuate the apartment.²³²

In the halls and on the stairway the crowd became more and more congested. Municipal officers urged the people to go no farther, but to retire. Their efforts had no effect.²³³

Presently Santerre appeared in the crowd and cries of "Down with the veto! Recall the ministers! Sanction the decrees!" greeted him from every side. He tried to restore quiet.²³⁴ A disinterested spectator, who stood near him, says Santerre cried out, "What the devil are you all talking at once for? That is not the way to be heard. We are not going to leave here. Don't you hear that the king wishes to speak?"²³⁵ He then told the king to have no fear and said he would be responsible for the royal family.²³⁶ Oelsner says that his *sans-culotte* eloquence made an impression and there was a moment's silence in which the king spoke in a firm voice. "I have sworn to maintain the constitution," he said, "I swear now faithfully to hold myself thereto." But the crowd

²²⁹ *Ibid.*

²³⁰ Oelsner, *loc. cit.*, LXXXVII, 80.

²³¹ "Déclaration de Bidaut"; "Déclaration de Lecrosnier."

²³² "Procès-verbal dressé par Mouchet."

²³³ "Procès-verbal dressé par Boucher-René"; "Procès-verbal dressé par Boric."

²³⁴ "Procès-verbal dressé par Mouchet"; Oelsner in *Revue historique*, LXXXVII, 80.

²³⁵ *Ibid.*

²³⁶ The statement that Santerre gave this assurance to the king is made by Paroy (*Mémoires*, 301) and by Madame Tourzelle ("Récit de ce qui s'est passé à la journée du 20 juin") in *Archives nationales*, C 222, 166¹². These persons both lived at the Tuileries, so their information must have come from the royal family.

only mocked him with, "You have often made promises and failed us; we no longer believe you; we want no false oaths. Withdraw the veto! Give us back the patriotic ministers!"²³⁷

A national guard, to whom a bottle of wine and a glass had been passed, seeing the king's discomfort, offered him a drink. "Sire," he said, "you must be thirsty. . . . Permit me to offer you something. Fear nothing, I am an honest man and you may drink without fear—I will drink first, if you will allow me." The king offered to drink from the same glass. Amidst applause of the crowd, the king cried, "People of Paris, I drink to your health and to that of the French nation!"²³⁸ But someone cried out, "It is not enough that he fills himself at the table, he must also fill himself here!" It was said that under other conditions, it would have been considered greatly to the king's credit to have drunk from the same glass that a man of the people drank from, but that now the *sans-culottes* considered such condescension as a hypocritical act and contemptible flattery.²³⁹

The temper of the crowd is plainly seen in an incident told by one of the municipal officers. On entering the château, he went to the apartment where the king was and saw a man held by the collar by five or six other persons who were going to put him out. On inquiring, he found that the man's offense was simply that he had cried, "Long live the king!"²⁴⁰

²³⁷ Oelsner, *loc. cit.*, LXXXVII, 80.

²³⁸ *Lettre de Blanc-Gilli au département des Bouches-du-Rhône*; Bourcet in *Révolution française*, XVII, 73; Oelsner, *loc. cit.*, LXXXVII, 80; Aulard, *Société des Jacobins*, IV, 22, report made by an eye witness in the meeting of the Jacobin club on the evening of June 20. Oelsner says he did not see the king drink, but he saw the upturned bottle and heard the crowd say that he drank. The account given in the Jacobin Club was by the "blond young man", who addressed the king while Pétion was near. The incident is frequently mentioned by the newspapers and by later writers. *Récit général*, June 24; *Nouvelle correspondance politique*, June 22, XII, 3; *Journal du peuple*, June 25, No. 146, p. 581; *Journal royalist*, June 24, No. 5, p. 5; *Correspondance secrète inédite sur Louis XVI, Marie Antoinette, la cour et la ville, 1777-1792*, Letter of June 23, II, 604. Madame Tourzelle also relates it in her "Récit" of June 22.

²³⁹ This is the observation of Oelsner.

²⁴⁰ "Procès-verbal dressé par Hù."

At the same time several members of the assembly, who had learned of the invasion of the Tuileries, appeared on the scene, though not in an official capacity. Since the assembly had not adopted Vergniaud's motion to send a permanent deputation of sixty members to protect the king, Vergniaud and Isnard, two of the most popular members of the Left, and Daverhoul and Blanc-Gilli, two members of the Right, upon their own responsibility entered the palace, forced their way through the crowd and came to the king's relief.²⁴¹ Daverhoul reported to the assembly that he pushed the crowd aside and as he reached the king, shouted, "You shall approach the king only by passing over my dead body."²⁴² Isnard, raised on the shoulders of two guards, spoke to the crowd after silence had been obtained by ringing a bell.²⁴³ "Citizens," he cried, "I am Isnard the deputy. If what you ask is granted at once, it will be believed that it was gotten by force. In the name of the law, in the name of the national assembly, I ask you to respect the constituted authorities and retire. The national assembly will do justice. I will contribute to that end with all my might. You shall have satisfaction; I will answer for that with my head, but retire." This last phrase was repeated several times but no one retired. However, at Isnard's words there was a lull in the tumult. Vergniaud then spoke, voicing the same sentiments, but with as little success as his colleague, and the tumult recommenced. "Down with the veto! Recall the veto! Recall the ministers!" was heard again.²⁴⁴

²⁴¹ Reports of Dumas, Isnard, Lasource, Turgan, Arbogast and Daverhoul to the assembly, *Journal de l'assemblée nationale*, XXI, 331 ff.; *Journal des débats et décrets*, No. 268, p. 278 ff.; *Moniteur*, XII, 718 ff.

²⁴² *Journal des débats et décrets*, No. 269, p. 295; *Moniteur*, XII, 723, reports that Daverhoul said one of his colleagues said this.

²⁴³ Nearly all sources speak of the use of the bell to obtain silence. Most say an usher rang it, but Bourcet (*Révolution française*, XVII, 77) says the king rang it and a report of the event given in the Jacobin Club on the evening of June 20 by the young man who addressed the king in Pétion's presence says the king made use of the bell several times. Aulard, *Société des Jacobins*, IV, 22.

²⁴⁴ "Procès-verbal dressé par Mouchet"; "Procès-verbal dressé par Patris"; "Déclaration de Fontaine"; "Déclaration de Gossé"; Oelsner, *loc. cit.*, LXXXVII, 80; *Lettre de Ph-Ch-Ai Goupilleau à la société popu-*

Goupilleau, a Jacobin member of the assembly, relates an altercation that he had at this point with several members of the Right. These gentlemen complained of the people for reducing the king to such a humiliating situation. Goupilleau answered that the fault lay with the evil councillors of the king, who had prevented him from hearing the truth and that they had been supported by the Right. Whereupon the members from the Right said, "Only Jacobins speak thus," and Goupilleau retorted that he was proud to be a Jacobin and placed his Jacobin card in his buttonhole.²⁴⁵

We have seen that the assembly adjourned immediately after the procession had left the hall at about half past three o'clock. The members, anxious about the situation, gradually returned to the hall and at about five o'clock a quorum had assembled and they were called to order.²⁴⁶ It was reported by a member that the life of the king was in danger. "I ask," he cried, "that the assembly go in a body to save him."²⁴⁷ Hébert requested that a deputation of twenty-four members be sent at once to the king, but this motion provoked murmurs from one side.²⁴⁸ Then

laire de Saint-Vincent de Nantes; Isnard's exact words are taken from Fontaine, but in his report to the assembly the same evening, Isnard repeated the substance of Fontaine's words as the address he made to the crowd. *Journal de l'assemblée nationale*, XXI, 338; *Journal des débats et décrets*, No. 268, p. 283; *Moniteur*, XII, 723. The cries of the crowd are reported in Gossé, Fontaine and Oelsner. Isnard says that after his speech the crowd became more calm.

²⁴⁵ *Letter of Goupilleau* as above.

²⁴⁶ *Journal des débats et décrets*, No. 268, p. 27, says the meeting was called to order by Guyton-Morveau and that Girardin took the chair a little later. *Procès-verbal de l'assemblée nationale* also states that M. Guyton, as ex-president, was in the chair. The *Journal de l'assemblée nationale* (XXI, 329), and the *Moniteur* (XII, 718), speak only of Girardin occupying the chair. *Chronique du mois*, June 20, 1792, also gives the hour as five o'clock.

²⁴⁷ *Journal des débats et décrets* gives the name of this member as Regnault-Beaucaron, as does also *Annales patriotiques et littéraires de la France*, CLXXIV, 763. The *Moniteur* and the *Journal de l'assemblée nationale* give no name.

²⁴⁸ *Journal de l'assemblée nationale*, XXI, 329; *Annals patriotiques et littéraires de la France*, No. CLXXIV, 763.

Thuriot said, "I am far from believing that the king can be in danger in the midst of the people, but if the assembly desires a deputation to be sent to him, I willingly consent to its nomination." Whereupon Beugnot replied, "It is not, as M. Thuriot has said, the people who are with the king—these are brigands."²⁴⁹ After another angry retort by Thuriot, the assembly closed the discussion.²⁵⁰ It now became a question of the size of the deputation. Some one asked that it be composed of sixty members, but it was pointed out that if sixty members were sent away there would not be a quorum left and Cambon said he thought the assembly should remain in permanent session. Thuriot, still burning with anger, demanded that any member who calumniated the people should be called to order, and Brunck cried out that only a factionist could see the people in these brigands. The assembly voted a deputation of twenty-four members, the president, M. Girardin, named them and they at once set out.²⁵¹

Scarcely had the deputation left the assembly hall when Dumas, who had been at the Tuileries, entered and reported what he had seen. He asked to be heard upon a question which concerned the public peace, the honor of the national assembly and the safety of the hereditary representative of the French people. He said he believed it necessary to give some executive power to the deputies by which they might secure the liberty and safety of the king, adding, "We have seen the king in imminent danger." This brought forth murmurs and protests, Charlier crying, "The king is in the midst of the French people; he cannot be in any danger," and some one retorted, "The people of Paris are not the French people." Dumas, still trying to speak above all this tumult, demanded to be heard in silence. He continued amidst

²⁴⁹ *Journal de l'assemblée nationale*, XXI, 329; *Journal des débats et décrets*, No. 268, p. 277; *Annales patriotiques et littéraires de la France*, CLXXIV, 763.

²⁵⁰ Reports do not agree on what Thuriot said.

²⁵¹ *Journal de l'assemblée nationale*, XXI, 330; *Journal des débats et décrets*, No. 268, p. 278; *Annales patriotiques et littéraires de la France*, CLXXIV, 763; *Moniteur*, XII, 718. The *Moniteur* is very brief here, stating only the fact that the deputation was sent when the king was reported in danger.

murmurs. "I have the floor; I will be heard in silence," but Chabot cried out, "M. Dumas has calumniated the people," and the noise continued. Dumas, however, persisted, saying, "These are not the people who surround the king: they are furious, misguided men," and called to witness Isnard and Vergniaud and others who had tried to speak to the crowd. He proposed that the assembly give orders to the commandant of the national guard to reestablish order in the château and secure the safety of the king. [Murmurs.] He said it was manifest to him and to those with him that no orders were respected; that the king was not in a state of liberty where he could give orders; "He was surrounded, assailed, menaced, degraded by the emblem of a faction; he had the red cap on his head." Here tumult followed, murmurs in the assembly and applause in the galleries, and voices cried, "The liberty cap is not degrading." "Call him to order!" "Send him to the abbey!" But Dumas continued to insist that the assembly should take necessary precautions to insure the efficacy of the measures that the deputies would have to execute. He thought the fact that the constituent assembly had charged itself with answering to the nation for the safety of the royal family on the 21st of June, 1791, would excuse this assembly for showing itself similarly affected by their dangers in the month of June, 1792.

After several members had attempted to speak, Turgan²⁰² got the floor. He reported what he had seen at the Tuileries reciting, amidst applause of the galleries, the incidents of the king in the window recess, the red cap, the attempts of Mouchet, Isnard, and Vergniaud to speak, and the cries for the sanction of the decrees and the recall of the patriotic ministers. He said that the deputies were treated with the respect due them; that having gone into the apartments adjoining those of the king, he had persuaded thirty thousand people to turn back. [Great applause in the galleries.] He said he was not opposed to action on the part of

²⁰²This name is spelled Turgan in the *Journal des débats et décrets*, No. 268, p. 280, Turgand in the *Journal de l'Assemblée nationale*, XXI, 332, and Targan in the *Moniteur*, XII, 710. Turgan is given by Kuscinski, *Les députés à l'Assemblée législative de 1791*, Paris, 1900.

the assembly, but it should act wisely. He thought the assembly should remain sitting until the king was at liberty and that it should constantly keep in communication with him through deputations sent to the château. Charlier asked that twenty-four more members be added to the deputation and Lacroix asked that all deliberations be suspended until the deputation returned. Ducos thereupon announced the arrival of the deputation and asked that no action be taken until its report had been heard.

Immediately Granet de Toulon entered the hall and, as a member of the first deputation sent to the château, reported what he had seen and heard there. His deputation had arrived just after the appearance of the mayor and remained with the king until he withdrew to his apartments. At the close of his report, Lacroix proposed, as an amendment to Charlier's motion, that a new deputation be sent to the château every half hour so that the assembly might be constantly informed of the state of things at the Tuileries. This proposition was unanimously adopted and after some objections as to how the members should be named, the second deputation was sent to the king.²⁵³

Arbogast, one of the deputies who went to the château when the assembly adjourned at half past three o'clock, next reported what he had seen at the apartments of the king. He said that twenty-four deputies were not enough and proposed that another deputation of twelve members be sent to remain with the prince royal and the ladies of the court. This proposition was supported by members of the Right who said the assembly was responsible to the entire nation for the safety of the prince. This caused a tumult and on a vote the motion was rejected.²⁵⁴

²⁵³ In this account of the assembly the *Journal des débats et décrets* and the *Journal de l'assemblée nationale* are full and agree on the facts I have given. The *Moniteur* is less full, giving only the speeches of Dumas and Turgan (XII, 718). The *Annales patriotiques et littéraires de la France* gives also a brief account of the session. It mentions more incidents than the *Moniteur* and gives short reports of the speeches of Thuriot, Beugnot and Granet de Toulon (CLXXIV, 763).

²⁵⁴ Here the *Moniteur* and *Journal de l'assemblée nationale* agree. The *Journal des débats et décrets* does not mention the women of the court.

Lasource was angered at the suggestion that the king was in danger and stated that the fears for the king's personal safety were falsely founded; that the people had been in full possession of the persons of both the king and the prince and had done them no violence; and that the deputations were sent, not to show that the assembly feared for the king's safety, but to show its interest in him. He suggested that it was an insult to the French people to express fear for the personal safety of the royal family. His speech was often interrupted by applause and murmurs.

Isnard now entered and gave an account of all that had occurred in the palace up to the time of the entrance of the first deputation. It is clear from the way in which the reports were received that the Left was unwilling to admit that the king was in danger or that he was being insulted. Any suggestions of the kind were received by them with murmurs and other marks of impatience.²⁵⁵

Meanwhile the crowd in and around the Tuileries increased constantly. It had grown much larger since it left the assembly, being swollen by onlooking men, women and children, all anxious to see what passed in the interior of the château.²⁵⁶ Among the throng in the garden of the Tuileries one observer noticed an individual attired in light blue with white embroidered waistcoat and curled and powdered hair. It was Manuel, the *procurateur de*

²⁵⁵ *Journal des débats et décrets*, No. 268, 281 ff.; *Journal de l'assemblée nationale*, XXI, 335 ff.; *Moniteur*, XII, 719.

²⁵⁶ Isnard in his report to the assembly, *Journal de l'assemblée nationale*, XXI, 337; *Journal des débats et décrets*, No. 268, p. 283; *Moniteur*, XII, 719. Turgan, in the same meeting, reported that he turned thirty thousand people back on the stairway. Four different accounts written by eye witnesses but unsigned estimate the crowd in and around the Tuileries at twenty, thirty, forty and fifty thousand. Klinckowström, II, 307; "Extrait d'une lettre écrite de Paris en date du 21 juin à Dupin et fils à Montpellier," in *Revue historique de la révolution française*, II, 597; Letter unsigned quoted in Weber, *Mémoires*, II, 187; Klinckowström, II, 303. Inside the château the crowd is estimated by two witnesses at two thousand and seven or eight thousand. Bourcet in *Révolution française*, XVII, 75, and Wittinghof in his declaration before the justice of the peace quoted in Ternaux, I, 404.

la commune. He passed an hour in the garden, but not in an official capacity.²⁵⁷

At about half past five o'clock, or a little earlier, when the invasion of the château had lasted about two hours, and after municipal officers and deputies from the assembly had tried in vain to restore order, the mayor of Paris, Pétion, was announced.²⁵⁸ He had not joined the procession and he had not

²⁵⁷ "Déclaration de Maserey"; Letter of Roederer to the commissioners of the department, June 30, 1792. These men, Garnier, Leveillard and Demantort were appointed to make a report on the events of the day of June 20. They wrote Roederer June 30, their second request, to get from Manuel a report of his conduct on June 20. Roederer wrote Manuel on the same day making a second request for his report. He received answer from Manuel (according to Roederer's letter to the commissioners) saying that Manuel had spent one hour at the Tuileries June 20. Manuel's letter is not given by Roederer. See this correspondence in *Revue rétrospective*, 2 série, I, 203-04. Manuel stated to Roederer that his place was at the city hall on that day. Desmousseaux, substitute for the *procureur de la commune*, states that Manuel was at his post at the Hôtel de Ville at nine a. m., June 20, "Déclaration de Desmousseaux." Manuel was suspended from his functions by a decree of the council of the department, July 6, 1792, at the same time Pétion was suspended. In Archives nationales, C 222, 160¹⁵², there is found a handbill accusing Manuel of improper remarks concerning the national guard on this day.

²⁵⁸ The statements about the time of Pétion's arrival do not perfectly agree. Fontaine, a guard beside the king, says ("Déclaration de Fontaine") it was fifteen minutes after five. Pétion himself ("Conduite tenue par M. le maire") says he reached the château a little before five o'clock. Allowing a little time for him to make his way through the crowd to the king, these statements agree. Another guard, Hémerly, says it was between five and six o'clock; a deputy, Lesier, says it was about six o'clock; Becquey, another deputy, says it was two hours after the voluntary deputation from the assembly arrived. This deputation came to the château immediately after the assembly adjourned at three-thirty. This would put the arrival of the mayor at five-thirty. Another means of fixing the time is by the arrival of the first deputation sent by the assembly. The assembly met at five o'clock and after a ten or fifteen minute discussion sent a deputation of twenty-four members to the king. Allowing time for them to penetrate the crowd they would reach the king about five-thirty. Gossé, a guard at the king's side, says ("Déclaration de Gossé") Pétion arrived just after the deputation; Fontaine, a guard, says ("Déclaration de Fontaine") he arrived just before the deputation; Champion, a municipi-

been seen in public since about eleven o'clock in the morning, when the decree legalizing the procession had been passed by the municipality. Pétion tells us that he remained at the city hall until half past two o'clock and then he went to the hall of the mayoralty. Here he received reports from the château through municipal officers.²⁵⁹ He had given no orders looking toward the safety of either the assembly or the Tuileries. Two letters written during the day, one from the directory of the department and one from three members of the council of the commune, show that these constituted authorities were very uneasy. The letter from the directory was addressed to the municipality and asked for a municipal officer to give them information. The other letter was addressed to the mayor at half past four o'clock and signed by three members of the council of the commune, who had assembled at the city hall. They urged the mayor to send them instructions.²⁶⁰ Pétion did not leave the city hall until half past

pal officer who helped clear the apartments, says ("Procès-verbal de Champion") Pétion arrived just before the deputation; and Blanc-Gilli, a deputy who had been in the room since the entrance of the crowd, says ("Lettre d'un député de l'assemblée nationale") that Pétion arrived at the same time as the deputation of twenty-four; Borie states ("Procès-verbal dressé par Borie") that he and his colleagues, Champion and Leroux arrived at the chateau at five-thirty. These met the mayor on the stairway. ("Procès-verbal dressé par Hü.") Still another way of fixing the time remains. The king said to Pétion on his arrival (see reference below) that the invasion had lasted two hours and Azéma, a deputy who was present, also says ("Lettre d'Azéma," in *Révolution française*, XXVII, 173) that the king endured this noise two hours. This again points to the time of Pétion's arrival as about five-thirty.

²⁵⁹ "Conduite tenue par M. le maire"; "Procès-verbal dressé par Sergent." Sergent was at the mayoralty until three o'clock when he set out for the purpose of getting information. He returned at four o'clock with a report that he had heard it said that the people had entered the king's apartments.

²⁶⁰ This letter states that the three men who signed it had gone to the city hall in response to a notice that each had received which read, "The peril is urgent; quick to the Hôtel de Ville." They ask Pétion if this is his order and whether or not the council will meet today. Both letters are printed in Ternaux, I, 208, note 1. Pétion did not answer these letters but at some time during the day he took time to write a letter to

four or a quarter before five o'clock, when he says he first learned through an adjutant that the Tuileries had been invaded.²⁶¹ He set out at once, without finishing his dinner, and drove in his carriage to the château.²⁶² He took with him his secretary Joseau and the administrator of police, Sergent. They descended at the Cour des Princes, the door of which they had reached with great difficulty, and putting on their scarfs, tried to open a passage through the crowd. They found everything much obstructed.²⁶³ Here they were joined by Mouchet and Hû, municipal officers, who accompanied them to the apartments of the king.²⁶⁴

Mouchet had all the afternoon made the greatest efforts to keep the people quiet. He had been at every door that the crowd passed through, had stood beside the king for an hour, and finally, wearied by his fruitless efforts to clear the château, says he had gone out an hour before to get refreshments. Hû had also been out of the château for two hours, he tells us, to assist in rendering justice to several men who had been arrested at the château and carried to the police station near by.²⁶⁵

The progress of the municipal officers to the royal apartments was slow, the crowd being so dense that it was necessary to address them and urge them to make room. Pétion reminded

the president of the committee of surveillance of the national assembly calling attention to the fact that he had been informed of disturbances occurring in the south of France. Archives nationales, F⁷, 4590.

²⁶¹ The note signed by three members of the council, Aug. de Bourge (notable), J. Hirmet, and Marie, asking for instructions because the danger was pressing, is dated at four-thirty p. m. (Ternaux, I, 208). If this was Pétion's first information of the invasion of the château then he acted on the information as soon as he could. But Sergent in his *procès-verbal* states that he returned to the mayoralty at four o'clock and had heard it said that the people filled the château from top to bottom. He must have told Pétion this because he left the mayoralty at three o'clock to get information. "Procès-verbal dressé par Sergent."

²⁶² "Conduite tenue par M. le maire."

²⁶³ "Procès-verbal dressé par Sergent"; "Conduite tenue par M. le maire."

²⁶⁴ Mouchet refers to this court as the Cour Royale. The two courts were separated by a wall.

²⁶⁵ "Procès-verbal dressé par Mouchet"; "Procès-verbal dressé par Hû."

them of the dignity that ought to be maintained by men who wished to remain free and who wished to preserve their constitution. This brought great applause. He urged them to guard against ill-intentioned persons who might slip into their midst and incite to disorder and so calumniate the people and their magistrates. Passing on up the stairway, several persons asked him if the king had withdrawn his vetoes and recalled the ministers. He stopped and vehemently said that the will of the king must be free and not forced and that the people could only prove its cause by moderation. He urged them to retire peaceably. All his words were greeted by applause.²⁶⁶

Reaching the *sal-de-bauf*, Pétion and Sergent saw the king surrounded by several officers of the national guard, two chiefs of the legion, Acloque and LaChesnaye, two deputies from the assembly, Isnard and Vergniaud, and some municipal officers in scarfs, Patris, Vigner, Champion and others.²⁶⁷ Louis XVI still wore the red cap and Pétion later referred to him as "covered by the emblem of liberty."²⁶⁸ Raised on the shoulders of several citizens, Pétion pushed his way to the king amidst great applause. "Long live Pétion!" shouted the crowd.²⁶⁹ "Sire, I have just this instant learned the situation you are in," said the mayor. To this the king replied, "That is astonishing. This has lasted two

²⁶⁶ "Procès-verbal dressé par Mouchet"; "Procès-verbal dressé par Sergent"; "Procès-verbal dressé par Hû"; "Conduite tenue par M. le maire."

²⁶⁷ "Procès-verbal dressé par Sergent"; "Procès-verbal dressé par Patris"; "Procès-verbal dressé par Mouchet"; "Procès-verbal dressé par Leroux"; "Procès-verbal dressé par Champion." Champion, Borie and Leroux had been to dinner at the home of Champion and returned to the château just as Pétion arrived. They followed by the same way that the mayor took. Hû, who was with Pétion, speaks of seeing Borie and Leroux on the stairs. Champion soon reached the room where he found the mayor with the king. See the *procès-verbaux* of Champion, Borie, Leroux and Hû.

²⁶⁸ "Conduite tenue par M. le maire."

²⁶⁹ Oelsner in *Revue historique*, LXXXVII, 82; Aulard, *Société des Jacobins*, IV, 22, report given in the Jacobin Club, June 20, 1792; "Déclaration de Lesieur," Ternaux, I, 406; "Procès-verbal dressé par Patris."

hours."²⁷⁰ The mayor then assured him that he had nothing to fear in the midst of the people.²⁷¹

Pétion was raised on the shoulders of several citizens and tried to speak.²⁷² The noise was frightful and he had much difficulty in making himself heard. "Citizens!" he cried, and the crowd became more quiet. He told them that they had made their representations to the hereditary representative of the nation with a dignity becoming a free people and urged them to retire with the dignity with which they had entered. But the clamor and shouts continued and the people did not move on. They called for a definite answer from the king and cried, "Down with the veto! Sanction the decrees! Recall the ministers! Long live the nation!" Then Pétion, mounted on a chair, spoke firmly. He said that this was not a suitable time to demand of the king the recall of the veto, that he must have time in which to deliberate, else it would be said that the king was not free. He said he had no doubt that when the eighty-three departments of France expressed their wish the king would yield to the manifest desires of the people. He continued to urge them to retire. He said they had entered with the dignity worthy of a free people and had expressed their wishes and that they ought now to retire for if they remained longer they would give occasion to their enemies to calumniate their good intentions and those of their magistrates and again strongly insisted that they move on.²⁷³ But while the people heard Pétion respectfully and applauded him, they replied to him with a demand for a definite response from the king and

²⁷⁰ "Procès-verbal dressé par Sergent"; "Déclaration de Fontaine." The exact words are Fontaine's.

²⁷¹ "Procès-verbal dressé par Sergent"; "Déclaration de Lesieur."

²⁷² Sergent says he was one of those who helped lift him up.

²⁷³ "Procès-verbal dressé par Sergent"; "Déclaration de Fontaine"; "Procès-verbal dressé par Patris"; "Procès-verbal dressé par Champion"; "Déclaration de Lecrosnier"; Déclarations made before the justice of the peace of the section of the Tuileries the 25th of June, 1792, by Montmorin, Hémery, Dorival and Dossonville, Lesieur and Becquey, in Ternaux, I, 404; "Conduite tenue par M. le maire"; Roederer, *Chronique de cinquante jours*, 61.

then there were heard again the cries, "Down with the veto! Recall the ministers! Sanction the decrees!"²⁷⁴

Champion, who was standing near the mayor while he spoke, was much offended and expressed his displeasure with the mayor's words. He was, however, reproached by his colleagues, according to the account of one of them, for showing too great excitement.²⁷⁵

During this scene of confusion a handsome, blond young man made his way through the crowd and approaching the king, spoke to him with vehemence. He addressed him as "Sire" and said that if he did not enforce the constitution and sanction the decrees of the assembly and recall the patriotic ministers the people would force him from the throne. The king calmly answered, "I have not turned aside from the path of the constitution." Pétion who stood near and heard these words addressed to the king said nothing.²⁷⁶

²⁷⁴ "Procès-verbal dressé par Sergent"; "Procès-verbal dressé par Champion"; report made in the Society of the Jacobins, June 20, Aulard, *Société des Jacobins*, IV, 22.

²⁷⁵ "Procès-verbal dressé par Champion"; "Procès-verbal dressé par Patris." Champion was one of the municipal officers who had not received a notice of the meeting of the municipal corps on the morning of the 20th. His *procès-verbal* shows great animus against Pétion and his statements that Pétion was indifferent in his efforts to clear the apartments are contradicted by every other account. His suppression of the things Pétion said in his address to the crowd amounts to misrepresentation.

²⁷⁶ "Déclaration de Lecrosnier"; "Déclaration de M. Vinfray," both guards in the *ail-de-bœuf*. Aulard, *Société des Jacobins*, IV, 22, gives the young man's own version of this incident as he gave it to the Jacobin Club the same evening. The king's exact words are not established by the evidence. I have used the young man's own report of the king's words in the text. Lecrosnier says the king said: "You do not conform to the law. Address yourself to the magistrate of the people." Vinfray does not give the king's answer. The *Nouvelle correspondance politique* for June 24 (XIII, 2) says the young man's name was Clément and that he was twenty-two years old. The same statement is made in *Le cri de la douleur* of June 23. The paper is royalist and contrasts the young man's handsome exterior with his tiger's heart; Lecrosnier says he was twenty-five.

Pétion continued his efforts to start the crowd moving. Municipal officers succeeded in forming a double line of national guards between which the people could file and so could be directed away from the entrance to the apartments.²⁷⁷ At the suggestion of Sergent and Hû the king ordered the apartments to be opened so that the people could pass out by the gallery. Pétion, still mounted on a chair, announced the orders given by the king to the effect that the procession should go out on the side of the corridor, repeated what he had said to the people before and continued to urge them to retire.²⁷⁸ Sergent then spoke, but it was difficult to hear him because everybody spoke at once. He took off his scarf and displaying it in his hands, asked the people in the name of this emblem of the law to retire. In his efforts he was seconded by Patris and Champion, who threw themselves into the crowd and urged the people in the name of the law to retire.²⁷⁹ Slowly the crowd began to move out between the lines of guards. As they moved along, there were cries of "Recall the ministers! Down with the veto! Sanction the decrees! Long live the nation!"²⁸⁰ And as they passed Pétion, cries of "Long live Pétion!" were heard and the mayor saluted the crowd as it retired.²⁸¹

The object of the mayor and municipal officers had been to relieve the pressure around the king so that he might pass into his apartments. Guards had already been placed at the lower door and in the halls with orders to let no more people enter.²⁸² But just at this time the first deputation that had been sent out by the

²⁷⁷ "Procès-verbal dressé par Sergent"; "Procès-verbal dressé par Patris"; "Déclaration de Fontaine."

²⁷⁸ "Déclaration de Fontaine"; "Procès-verbal dressé par Sergent"; "Procès-verbal dressé par Hû."

²⁷⁹ *Procès-verbaux* of Sergent, Champion, and Hû; "Conduite tenue par M. le maire."

²⁸⁰ "Procès-verbal dressé par Sergent"; "Procès-verbal dressé par Hû."

²⁸¹ "Déclaration de Fontaine"; "Extrait d'une lettre écrit de Paris, 21 juin à Dupin et fils à Montpellier" in *Revue historique de la révolution française*, II, 597.

²⁸² "Déclaration de J. J. Leroux"; "Procès-verbal dressé par Sergent."

national assembly arrived at the château and this opened the way for new crowds of people.²⁸³

The deputation was led by the deputy, Brunck, who addressed the king. He said that the national assembly had sent twenty-four of its members to assure itself of the state of his person, to protect his constitutional liberty and to share his dangers if there were any. The king answered that he was cognizant of and grateful for the solicitude of the assembly, but that he was in the midst of the people and had no fear, and that his conscience was clear.²⁸⁴ Meantime the crowd moved slowly on, showing everywhere the greatest respect for the representatives of the people and for the municipal officers.²⁸⁵ Pétion was now most energetic in his efforts, moving from apartment to apartment, urging the people to pass on. Municipal officers formed lines of national guards in the hall through which the people could pass out. With the help of some officers of the law who carried ivory batons, the municipal officers soon had the space around the king cleared once more.²⁸⁶ Urged by the deputies to retire within his apartments the king accepted the suggestion which he seems to have refused twice before.²⁸⁷ He was then surrounded by the deputies

²⁸³ *Ibid.*; "Déclaration de Fontaine"; "Procès-verbal dressé par Champion."

²⁸⁴ "Déclaration de Fontaine"; report made by Brunck and Lejosné to the assembly the same evening in *Journal de l'assemblée nationale*, XXI, 330; *Journal des débats et décrets*, No. 268, p. 283; *Moniteur*, XII, 719.

²⁸⁵ Reports made in the assembly by Lejosné, Dalloz and another member whose name is not given; *Journal de l'assemblée nationale*, XXI, 339 ff.; *Journal des débats et décrets*, No. 268, p. 284 ff.; *Moniteur*, 719; "Déclaration de J. J. Leroux"; *procès-verbaux* of Champion, Hù, and Sergent.

²⁸⁶ "Conduite tenue par M. le maire"; "Procès-verbal dressé par Patris"; "Procès-verbal dressé par Sergent." Sergent says these men were Dorival and Dossonville. Aulard, *Société des Jacobins*, IV, 23. The "blond young man" who reported this incident in the Jacobin Club said that these men with ivory batons said very politely to the people, "Respect the law!"

²⁸⁷ "Procès-verbal dressé par Sergent"; report of Lejosné in the assembly referred to above. Fontaine in his "Déclaration" says that Aclocq proposed this to the king. It is probable that all urged the king to withdraw. According to their own declarations both Mouchet and Hù had

from the assembly and by national guards. They all passed into the state bedchamber and from there through a private door into his apartments.²⁸⁸ It was now eight o'clock.

While the king underwent his ordeal for four hours or more in the *ail-de-bauf*, the queen, in her apartments, also suffered great mental anguish. Late in the afternoon a detachment of guards was sent to her apartments and those of the prince royal with orders to let no one enter. They found the halls practically deserted, there being only three or four guards and only about thirty guns, abandoned in the rack. The crowd was already pounding upon the doors and trying to force entrance.²⁸⁹ Meantime the queen was on the verge of distraction for the safety of the king and the prince royal. She had with her her two children, the prince royal and Madame Royale, the Princesse de Lamballe, Madame Tourzelle, Rougeville, Guingerlot, Paroy and several other members of the court.²⁹⁰ When the crowd began to attack the door she insisted upon going to the king, saying she wished to share his danger, but was prevented from doing so by those present.²⁹¹ She had the prince sent to the apartments of Madame Royale, then brought back to her.²⁹²

proposed the king's retirement earlier, but he refused. He probably suspected the motives of these officers.

²⁸⁸ "Déclaration de LaChesnaye"; "Déclaration de Fontaine"; "Procès-verbal dressé par Champion"; Bourcet in *Révolution française*, XVII, 77; *Lettre d'un député de l'assemblée nationale*, Blanc-Gilli; *Lettre de Ph-Ch-Ai Goupilleau*; *Extrait d'une lettre écrité de Paris en datte du 21 juin à Dupin et fils à Montpellier* in *Revue hist. de la rév. fran.*, II, 597.

²⁸⁹ Declarations of Mussey, Turot, and Jaladon. The same statement is signed by four of Mussey's subordinates, Cuvillier, Chauvreau, Corps and Balin. These are found with those of Mussey and Turot in "Déclarations reçues par la juge de paix de la section du Roi de Sicile."

²⁹⁰ "Déclaration de Guingerlot"; Paroy, *Mémoires*; Madame Tourzelle, "Récit," in Archives nationales, C 222, No. 160¹⁵²; "Déposition de Rougeville."

²⁹¹ "Déposition de Rougeville"; Madame Tourzelle. "Recit," in Archives nationales, C 222, No. 160¹⁵²; *Récit exact et circonstancié de ce qui s'est passé au château des Tuilleries, 20 juin, 1792*. This pamphlet gives details of how the queen insisted that she would go to the king and share his danger but was prevented by Rougeville and Aubier, who, authorized by Madame Elizabeth, forcibly detained her. This account is anonymous and

The guards outside made vigorous resistance for about an hour against the crowd that struck the doors and uttered menaces and insults against the queen. The people were determined to reach her apartments and in the struggle one of the captains of grenadiers, Lasue, was wounded. Seeing the uselessness of resistance, the commandant of the Tuileries, Lieutenant General Wittinghof ordered the doors opened and the crowd rushed in. Once in the apartments, the crowd showed great curiosity, overturning screens, forcing doors, rummaging beds, and at the same time uttering oaths and menaces against the queen.²⁰³

When it became evident that the people were determined to see the queen, she was taken into the council chamber of the king through which the procession must pass in descending to the court. Between the *vil-de-bauf* and the council chamber was the state bedchamber through which the crowd passed.²⁰⁴ With her were Madame Elizabeth who had come to join her, the prince, his sister and several ladies of the court, among them Madame Tourzelle and the Princesse de Lamballe. Lieutenant General Wittinghof, Lajard, minister of war, and Chambonas, minister of foreign affairs, were also beside her. The queen and her companions had been placed in a window recess behind the large council table in front of which there were two rows of grenadiers of the Filles-Saint-Thomas, commanded by Mandat.²⁰⁵ As soon

was written later than June 23d and, being very similar to that of Rougeville, I assume it is drawn from him. See also "Bulletin avec détails sur ce qui s'est passé aux Tuileries le 20 juin, 1792," in Klinckowström, II, 303; "Bulletin de ce qui s'est passé aux Tuileries le 20 juin, 1792," dated June 21, Klinckowström, II, 307.

²⁰² "Déposition de Rougeville"; Madame Tourzelle, "Recit," in the Archives nationales, C 222, No. 100¹⁰². Paroy in his *Mémoires* says the queen first sent the little dauphin to the apartments of Madame Mackan, who lived just under the roof, by Hue, his *valet de chambre*, but in her excitement called him back before he got there and then she fainted.

²⁰³ Déclarations of Mussey, Turot, and Jaladon.

²⁰⁴ Gumbout says in his "Déclaration" that the people cried, "Is this the bed of the great Veto? Monsieur Veto has a more beautiful bed than we have. Where is the great Veto?" etc.

²⁰⁵ "Rapport de Mandat"; "Rapport de Lagard"; "Déposition de Rougeville"; "Déclaration de Leclere"; "Déclaration de Guingerlot";

as the crowd began to cross the apartments, Santerre entered and took his place beside her, at her right. She seemed disturbed at first. Addressing her, he told her that she deceived herself; that the people wished her no harm; that if she desired it, there was not one of them who would not love her as much as her child did; he begged her to save France and assured her that she had nothing to fear. He then assumed the rôle of her protector while the crowd passed.²⁹⁶ He ordered the guard to make room so that the people might enter and see the queen and as they passed he urged them on.

A woman in the procession offered Wittinghof a red cap, which he gave to the queen. She put it on her head and then on the head of the prince royal.²⁹⁷ After a quarter of an hour Santerre, pitying the child's discomfort, said to his mother, "Take the cap off of the child, it is too warm." All this time, he kept urging the people to pass on, saying to them, "Look at the queen! Look at the prince royal!"²⁹⁸ A woman in the procession stopped before the queen and, looking at her, began to weep. Santerre pushed her on, saying she was drunk.²⁹⁹ The queen remained throughout this ordeal remarkably calm and courageous.³⁰⁰

Several municipal officers now entered the room where the

"Lettre de J. B. Mosneron" in *Revue d'histoire moderne et contemporaine*, XI, 115. Romainvilliers says ("Eclaircissement à demander à M. le commandant-général") that he sent a detachment of guards to the queen and himself watched her, but no one else mentions this. See also Report of Santerre to the mayor, Ternaux, I, 415.

²⁹⁶ "Extrait du rapport fait par Santerre au maire," in Ternaux, I, 415; Oelsner in *Revue historique*, LXXXVII, 84; "Déclaration de Leclerc."

²⁹⁷ "Rapport de Mandat"; "Rapport de Lagard"; "Récit de Madame Tourzelle"; "Déclaration de Leclerc"; "Déposition de Rougeville." The first three witnesses say that Santerre entered before the hat was presented; the other two say he entered afterward. The last two are the only ones who speak of Wittinghof giving the red hat to the queen. The others say some one gave it to her or a woman gave it to her.

²⁹⁸ "Rapport de Mandat"; "Rapport de Lagard"; "Déposition de Rougeville."

²⁹⁹ "Rapport de Mandat." In the declarations made before the justice of the peace of the section Roi de Sicile, two of Mussey's subordinates refer to a woman who was probably this one. Cuvillier says she was

queen was to aid in clearing the apartments; among them were Champion and Leroux.³⁰¹ Two rows of national guards had been drawn up by LaChesnaye, chief of the sixth legion, extending from the *ail-de-bauf* through the state bed chamber, the council hall, and the corridors to an outside entrance and the crowd passed out between them.³⁰² Municipal officers continued to urge the people on, but many lingered, asking what answer the king had made to the demand for the recall of the vetoes and for the return of the patriotic ministry. Some complained that they had been brought there for nothing, but that they would return and would have what they wished. Two guards testified that they heard Santerre say on starting from the château, "The king has been hard to move to-day. We will return to-morrow; we will make him give in."³⁰³ At about half past eight every one had retired and the queen and the royal family joined the king in his apartment. Weeping, they threw themselves into each other's arms and a touching scene followed.³⁰⁴

The deputies who entered the king's apartment with him remained for a time, when a second and then a third deputation from the assembly came in. These had all been required by municipal officers outside to show their cards before entering.³⁰⁵ The last deputation arrived about nine o'clock and talked with the king and his family about an hour. The queen took them to

dumb and Guffroy says she wept. See their declarations in *Recueil de pièces*, XXXVII.

³⁰⁰ Récit de Madame Tourzelle; Bulletin avec détails sur ce qui s'est passé aux Tuilleries le 20 juin, 1792. Letter of J. B. Mosneron in *Revue d'histoire moderne et contemporaine*, XI, 116.

³⁰¹ Declarations of Champion and J. J. Leroux.

³⁰² "Déclaration de LaChesnaye"; "Procès-verbal dressé par Sergent."

³⁰³ "Procès-verbal dressé par Hû"; Azéma, Letter of June 20, 1792, in *Révolution française*, XXVII, 172; "Déclaration du commandant du deuxième bataillon de la quatrième légion et plusieurs grenadiers et volontaires du même bataillon," signed Blouet and Pical.

³⁰⁴ "Déclaration de Gossé"; Bourcet in *Révolution française*, XVI, 77; Letter of J. B. Mosneron to Louis XVIII, in *Revue d'histoire moderne et contemporaine*, XI, 116; *Note historique sur la journée du 20 juin, 1792, par le Sr. Joly*.

³⁰⁵ "Procès-verbal dressé par Sergent."

see the little prince, who was playful and charming. Some of the aristocratic deputies flattered the king and queen, but the patriotic deputies made objection to this. The king spoke kindly of the people and made no complaint. At about ten o'clock, they all retired, leaving the family alone.³⁰⁶

Pétion, who had left the king when the deputation from the assembly arrived, continued to make the greatest efforts to clear the château. Carried on the shoulders of two grenadiers, he urged the crowd on the stairway, in the vestibule and in the courts, in the name of the law, to follow him, remaining at the principal door until all had passed out. He was ably seconded by the municipal officers, Sergent, Leroux, Hû, Patris, Mouchet and Champion. These formed lines of guards to prevent new crowds entering, urged the people in the name of the law to go out, and their efforts added to the zeal and energy of the mayor were effective. The people everywhere passed on without resistance.³⁰⁷

It was still a question of clearing the courts and the garden and closing the gate. Sergent and Hû with some national guards succeeded in this with little effort and closed and guarded the gates. Pétion with Sergent, Hû and Leroux, returned to the apartments to see that no stragglers remained. Finding all was well, Pétion went to the national assembly to give an account of

³⁰⁶ *Lettre de Ph-Ch-Ai Goupilleau*; Letter of Azéma in *Révolution française*, XXVII, 172; *Lettre d'un député*, etc., Blanc-Gilli. Azéma says that in the conversation the king showed a remarkable memory for incidents and persons and details of the afternoon's events. He says he spoke of Santerre and of Theroinge. Theroinge is mentioned as being in the crowd by the *Nouvelle correspondance politique*, XII, 2; Varenne, *Histoire particulière*, also says she was in the crowd this day but neither of these state that she was in the château. Theroinge was a well known revolutionary character, a very beautiful woman of the *demi-monde*. One authority, a police report found in Archives nationales, F⁷4387, states that she was in the crowd on the 20th and that she did not cease to provoke the people to support the project of the faubourgs. The report is signed, Minot.

³⁰⁷ "Conduit tenue par M. le maire"; Déclarations of J. J. Leroux and Legrand, made to the justice of the peace of the section Roi de Sicile; *Procès-verbaux* of Sergent, Patris, Hû, Mouchet, and Champion.

his conduct during the day. It was now ten o'clock and the courts and gardens of the château were silent.³⁰⁸

The constituted authorities plainly feared a repetition of the day's events on the morrow and so took precautions to prevent it before they retired that night. Pétion wrote to the commandant at ten o'clock: "It is reported, M. le commandant, that the citizens are going to the Tuileries tomorrow. I avow that I do not believe it, but as it is not permissible to neglect a matter of this importance, I ask you to bring an imposing force, to establish patrols, in a word to take every precaution for safety."³⁰⁹ At half past ten the directory of the department met and passed the following decree: "Ordered that the mayor and municipality of Paris do insure, by all the means the law has put into their power, security and public peace, especially the safety of the king, the royal family and the château of the Tuileries."³¹⁰ They then wrote to Pétion asking him to come to the directory at nine o'clock in the morning with some municipal officers to arrange with them measures to be taken to insure public order for the day.³¹¹ At eleven o'clock, Terrier, the minister of the interior, wrote to the directory: "I ask you, gentlemen, in the name of the king, to come to the Tuileries to arrange with us some means of insuring order this night."³¹² He wrote another letter showing his fears for the morrow and said, "I learn, gentlemen, that the same gathering which occurred today is going to form tomorrow. I ask you in the name of the country to use all means which the law has entrusted to you to maintain order and prevent the deadly occurrence with which we have been threatened today."³¹³ It appears

³⁰⁸ "Conduit tenue par M. le maire"; *Procès-verbaux* of Hù, Sergent, Leroux, and Champion; report of Montjourdan at eleven-thirty p. m., June 20, in Archives nationales, C 222, 160¹⁵².

³⁰⁹ Pétion to the commandant, June 20, 1792, ten p. m., in Archives nationales, F⁷4774⁷⁰.

³¹⁰ Deliberations of the directory, ten-thirty p. m., in *Revue rétrospective*, 2 série, I, 177.

³¹¹ Directory to Pétion in Archives nationales, F⁷4774⁷⁰.

³¹² Terrier to the directory, June 20, eleven p. m., in *Revue rétrospective*, 2 série, I, 190.

³¹³ Terrier to the directory, June 20, 1792, in Archives nationales, F⁷4774⁷⁰.

from this that the threats of the crowd on going out of the château and their disappointment in not receiving a promise from the king were taken seriously. Especially at the Tuileries was the recurrence of the movement feared.³¹⁴

During all the confusion and uproar at the château the assembly, which we saw resume its session at five o'clock, continued its deliberations. It listened to reports of the invasion of the Tuileries and continued to express its disapproval of any statement which intimated that there was danger to the king's person. The temper of the assembly and its extreme sensitiveness are seen in its behavior toward the next two speakers. Brunck, who was spokesman for the first deputation sent to the Tuileries, reported the king's remark that he had no fear because he was in the midst of "his people." This statement caused much disapproval and murmurs were heard. The assembly was calmed only by the remark of another deputy, Lejosne, who said that he had heard the king say that he was in the midst of the "French people," not "his people."³¹⁵ Dalloz³¹⁶ followed with the report that the representative of the people had everywhere received marks of respect. He added that the king, on being reassured by some deputies, answered that a good man who had a clear conscience is not afraid and that he took the hand of a national guard and carried it to his heart saying, "See if it palpitates and if I am afraid." This brought great applause.³¹⁷ The second

³¹⁴ "Observations du 21 juin, 1792," Soltho Douglas in Archives nationales, W 1^o251. Sergent-Marceau says ("Notice historique sur les événements du 10 août 1792 et 20 et 21 juin, précédents") that this man, "le petit abbé Soltho Douglas," was in the pay of the court to give information to the police.

³¹⁵ *Journal de l'assemblée nationale*, XXI, 339; *Journal des débats et décrets*, No. 268, p. 283; *Moniteur*, XII, 719.

³¹⁶ Spelled variously: Dalloz, Dallot, Alos. The correct spelling, according to Kucinsky, is Dalloz.

³¹⁷ This is the second time that this incident, concerning the king, is reported on this day. The statement that it occurred at this time is borne out by Oelsner (*Revue historique*, LXXXVIII, 83), who was in the *wild-bauf*. He says the king took the hand of a deputy and held it to his heart. The incident is a third time reported by Azéma (*Révolution*

deputation that had been sent out by the assembly now returned and reported that all was quiet at the Tuileries and that the king had retired to his apartments and had there said that he felt no fear in the midst of "his people." At these words the tumult broke out afresh and Béquoy shouted that this was no time to quarrel over words. When the tumult ceased a deputy reported that the only violence committed at the château was the breaking of some doors and locks.³¹⁸

Presently Pétion and some municipal officers appeared at the bar of the assembly and the tumult recommenced. Pétion was greeted with applause and menaces. His report was an attempt to justify his conduct on this day. He spoke as follows: "Gentlemen, I ask your indulgence because I have not had time to put my ideas in order. There has been some anxiety because of the great number of citizens who have gone into the apartments of the king. The king, gentlemen, has had no anxiety, for he knows the French people better. He well knows how his person has been respected for the last three years. He knows that the magistrates have labored without ceasing to assure the king the respect due him under the constitution. The magistrates, gentlemen, have done their duty, I dare say, with great zeal and I have been much disturbed that some persons have seemed to doubt it for one instant." Here he was interrupted by cries of, "And who still doubt it!" There were murmurs and shouts of, "Call him to order! call him to order!"³¹⁹

Then a member demanded that any one who was wanting in respect to a petitioner or to a magistrate of the people who came to give an account of his conduct, should be denounced. Boulenger cried, in answer to this, that no one had yet denounced those who were wanting in respect to the king and those who were the authors of a plot and Ducos retorted that if Boulenger (*française*, XXVII, 174) as having occurred in the apartments after the king had retired from the crowd.

³¹⁸ *Journal de l'assemblée nationale*, XXI, 341; *Journal des débats et décrets*, No. 268, p. 285.

³¹⁹ This speech of Pétion's is the same in the *Moniteur*, XII, 720, *Journal de l'assemblée nationale*, XXI, 341, and *Journal des débats et décrets*, No. 268, p. 285.

did not denounce the plot, he would brand upon his forehead the name of calumniator. This brought great applause from the galleries. But the assembly refused Boullenger the floor and Pétion continued.

“Some people do not know what the municipality has done. It is not for me to pronounce eulogies upon its conduct, but I can say that it has performed its duty in a way that merits approbation.” He then reviewed the movement since his first information concerning it. He spoke of the municipality having learned on June 16 that a petition was to be presented to the assembly and to the king, and said that the municipal council had refused to authorize the movement because the citizens had asked to present themselves in arms without specifying that they belonged to the national guards or to a battalion, but that, when circumstances had changed, this same council gave the battalions permission to march. He said that the chiefs of the battalions had presented themselves at the mayoralty and had assured the mayor that the intentions of the citizens were good and that the constituted authorities had at other times permitted citizens to march armed and that they had been well received by the national assembly. Why discriminate against them? Then they [the officers] said that they would not be the ones to prevent the citizens from marching armed. In consequence of this a prudent measure was taken by the municipality. The battalions were authorized to march and the other citizens were allowed to place themselves under the national flag and under the chiefs recognized by law. Thus the citizens marched legally and being under recognized chiefs would do no wrong.

This measure was communicated to the department, which did not approve of it. Immediately the police and the mayor had taken every precaution and had conformed to the letter which the directory had written to them. But Pétion said there had been no need of referring to the directory of the department because the public force could not act without authority from the municipality. He said that municipal officers had been sent to the gathering places in the faubourgs on the morning of June 20 to speak to the citizens and that the citizens insisted that they

would not form a mob nor cause a riot. In view of these circumstances, he called the municipality together and, believing that it would be very imprudent and very dangerous to allow forty thousand men to move without leaders, the municipality decided to legalize the movement by requiring the battalions to march under their commandants, allowing the citizens to range themselves under the flag of the national guard. It was under these circumstances that the citizens had presented their petition to the assembly and to the king.

He said that the citizens, having marched through the assembly and the Tuileries, respecting property and insulting no one, had proved that they had no intention of committing excesses. Any intentions of that kind could easily have been carried out for there was not sufficient police force to have prevented anything the crowd might have attempted. He declared he had gone to the Tuileries and had done all he could to restore quiet and have the apartments cleared as promptly as possible and that the king had nothing to complain of and had expressed himself so to the various deputations that the assembly had sent to him. He said all was now quiet at the Tuileries and that he hoped it would remain so. He assured them that the magistrates would neglect no measures for maintaining the peace. This was followed by reiterated applause.

In conclusion Pétion added, "I have heard it said that there are plots. It will be necessary for the public safety that these should be made known. I do not believe that any good citizen will refuse to give such proofs as he has, to enable the magistrates to baffle the conspirators. I ask all the members of the assembly who have proofs, to present them and the magistrates will at once perform their duty." This was followed by much applause.³²⁰

Charlier suggested that honorable mention should be made of the conduct of the municipality. Becquey opposed this proposition which was received with murmurs and cries of, "No! No!"³²¹

³²⁰ *Journal de l'assemblée nationale*, XXI, 341 ff.; *Journal des débats et décrets*, No. 268, p. 288 ff.; *Moniteur*, XII, 720.

³²¹ *Ibid.* The *Journal des débats et décrets* does not give the name of Charlier and the *Moniteur* does not mention Becquey. Otherwise the accounts agree.

After some other business had been presented to the assembly, Guyton-Morveaux, spokesman of the last deputation sent to the king, reported that all was quiet at the Tuileries, that the deputies had remained some time with the king and that they had seen nothing to cause alarm. He said an officer of the guard had reported that the château was clear and that the king had retired to rest. The assembly adjourned at half past ten o'clock.³²²

So ended the famous demonstration of June 20, 1792. That it was a popular uprising, a spontaneous outburst of feeling against the king because of his duplicity and his collusion with the foreign enemy, a feeling intensified by his dismissal of the ministry and his refusal to sanction the decrees of the assembly, is clearly seen. The war which had been forced on the court by the assembly and carried on in a half-hearted way had failed. Austria was presumptuously interfering in the internal affairs of France and the constitution which the revolution had made possible was not being enforced and was now threatened with overthrow. The king, in order to carry out his anti-revolutionary policy, dismissed the Girondist ministry and vetoed the decrees for the establishment of a camp of 20,000 *fédérés* to protect Paris and the assembly. In doing this, the king acted within his constitutional rights.

The assembly, although it believed that the king was using this technical right to aid the invaders and to defeat the revolution, was itself unwilling to save the country by violating the constitution.

In the faubourgs, where the people felt less respect for constitutional restrictions, there was deep seated distrust of the king, a strong belief in his treachery and fear of the foreign enemy. Ever since the outbreak of the war in April, the sections in the faubourgs had considered organized resistance to the menaces from the court within and from the enemy without France and this feeling had been intensified by the dismissal of the Girondist ministry and the veto of the decrees. The men of the faubourgs determined to save France by bringing pressure to bear on the assembly and by forcing the king to act in accordance with the

³²² *Ibid.*

spirit of the constitution.³²³ Thus an early plan to celebrate on June 20 the oath of the tennis court by presenting petitions to the king and to the assembly and by planting a liberty tree took on, from these circumstances, a revolutionary character.

The movement had no definite prominent leaders. If Girondins or Jacobins were the real leaders, their acts have been well concealed, for there is no evidence by which to fix responsibility upon them. The Girondins wished the recall of their ministers and trusted that the uprising would contribute to this end. The Jacobins did not wish the return of this ministry, as that would continue a constitutional monarchy. They hoped for a new revolution which would overthrow the monarchy. The ostensible leadership of the day was in the hands of the popular idols of the faubourgs.

The failure to prevent the movement was due both to sympathy on the part of some of the constituted authorities and to their conviction that any attempt at repression would result in bloodshed. This led to a plan to permit and control the movement. The mayor, at first inactive, was forced to act by the decrees of the directory which was determined to check the uprising even though it resulted in bloodshed. The mayor, still cautious, on learning from the commandants of the faubourgs that it would be impossible to prevent the march without bloodshed, proposed to the directory to legalize and control it. The directory, however, stood firmly for repression, forced the mayor to instruct the commandants to this effect, and to send police to the gathering places. These officers made every peaceful effort to prevent the procession and when their efforts proved fruitless, the mayor and the municipal council, on the advice of the commandants, voted to legalize the march and give it leadership, hoping thus to render it harmless. The government, acting through the minister of the interior, stood with the directory in its effort to prevent the movement at any cost. The majority of the members of the legislative assembly were in sympathy with

³²³ The feeling in the faubourgs is expressed in such pamphlets as *Grande discours prononcée par le patriote Gouchon* and *Preuves évidentes des trahisons de l'état-major*.

the demonstration. The silence of that body that followed the reading of the directory's decree on June 19 indicated this. The debates show an unwillingness to condemn the citizens, a sympathy with the movement and resentment when the people's motives were questioned or when the king was said to be in danger. The national guard was divided in its sympathy. Several of its commandants were leaders of the movement and the general commandant was wholly inactive. Some of the guards expressed themselves as unwilling to fire on the people. Under these circumstances, it seemed impossible to prevent the demonstration.

The plan of the faubourgs was to present petitions to the assembly and to the king and to combine this act with the celebration of the oath of the tennis court by planting a liberty tree. The plan was not well formed and its execution was a good deal of an accident. The tree was planted, but not where it was intended. The petition to the assembly had been drawn up in the faubourgs. It voiced the fears of the people, charging plots and conspiracies, appealed to the assembly for protection of their liberties, advocated resistance to oppression as expressed in article two of the declaration of rights and threatened tyrants with the vengeance of the men of the 14th of July. It complained of the dismissal of the patriotic ministers, the inaction of the armies and the delays of the high national courts, but made no mention of the king's vetoes. Whether this omission was due to the fact that the petition was drawn up before the vetoes were officially announced or whether the framers of the petition were less concerned with the vetoes than they were with the recall of the ministers, is not clear. Possibly the demand for the withdrawal of the vetoes was reserved for the petition to the king, but of this petition we have no record. However that may be, the determination that the king should hear the wishes of the people on both of these questions was evident and was successfully carried out when the crowd entered the château.

Here the demand for the recall of the ministers and for the withdrawal of the vetoes was insistent. The distrust of the king was pronounced and the warning that something would be done, that

he would even be dethroned, if he did not change his attitude toward the revolution, was clearly voiced. The crowd withdrew from the Tuileries only when urged by Pétion to allow the king to decide freely concerning the demands made upon him and when assured that he would "acquiesce in the manifest desire of the people." The demands were not withdrawn. The people even threatened to return, if the king did not yield to their wishes; he was simply given time in which to act. Should he persist in his duplicity, should he refuse to recall the ministers and withdraw his vetoes, a second and more serious uprising, an uprising that would cost him his throne seemed inevitable. The affair of June 20 was not, then, a wild outbreak of unreasoning popular fury, but a demonstration of the political intelligence of the residents of the faubourgs of Paris, of their determination to put an end to a situation that had already lasted too long. On that day Louis XVI received his last opportunity to abandon his policy of duplicity and frankly accept the revolution. He failed to understand and on August 10 the men of the faubourgs kept their promise, returned to the Tuileries, forced the suspension of the king and saved France from the invading armies. The days of June 20 and August 10, 1792 are inseparable and are no less significant than that of July 14, 1789.³²⁴

³²⁴ That the significance of this day was clearly understood by the Russian government is shown by the fact that diplomatic relations were broken off with France because of it. On July 19, Catharine II sent a note of dismissal to M. Genet, *chargé des affaires de France*. Relations were not to be renewed until the king of France should be reinstated in his rights and prerogatives. Catharine understood that the events of June 20 were a menace to all royalty. In a letter to Grimm, August 13, 1792, she said so and explained her reasons for dismissing Genet. *Recueil des instructions données aux ambassadeurs et ministres de France*, II, 530, 536. The royalists throughout France felt the significance of the day also and expressed their abhorrence in pamphlets and addresses to the king on the following days. See *Adresse au roi après la journée du 20 juin, 1792*; *Au roi*; *Aux citoyens amis de la constitution par les fédérés*; *De l'affreuse conspiration qui vient d'être découverte par des membres de l'assemblée nationale*; *Description de la fête civique donnée au roi*; *Lettre au roi présenté par ses fidèles sujets*, signed P. M. D. V.; *Paroles d'un vrai Français*.

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B. PRINTED

1. Collections. Documents and Correspondence

a. *Proclamation du roi et recueil de pièces sur les événements du vingt juin, 1792*. This volume was published by order of the directory of the department and consists of two parts.

(1) Part I, *Proclamation du roi et recueil de pièces relatives à l'arrêté du conseil du département du 6 juillet, 1792, concernant le maire et le procureur de la commune de Paris, Paris, d'imprimerie royale, 1792*. It contains four documents which relate to the suspension of the mayor and the prosecuting attorney of the commune from their functions. They are: (a) Proclamation du roi concernant l'arrêté du conseil du département du 6 juillet, qui suspend provisoirement le maire et le procureur de la commune de Paris, du 11 juillet, 1792. (b) L'arrêté du conseil du département du 6 juillet, 1792. (c) Rapport et conclusion du procureur général-syndic du département de Paris, relativement aux événements du 20 juin; lu au conseil du département le 6 juillet, 1792. (d) Extrait des registres du conseil du département. Procès-verbal de la séance du conseil du vendredi 6 juillet, 1792.

(2) Part II is entitled *Pièces justificatives sur les événements du vingt juin, 1792*. This is paged separately and contains 94 pages. It consists of letters, declarations, reports and procès-verbaux of officers as follows: (a) Letters. 1'. Copie de la lettre écrite au procureur-général syndic du département, par le maire de Paris, 18 juin, 1792. No. I. Also reproduced in *Revue rétrospective*, 2 série, I, 162. 2'. Copie du lettre adressé au directoire, le 20 juin à minuit, per MM. les maires et officiers municipaux au département de Paris. No. II. Printed in Ternaux, I, 145, and in *Arch. parl.*, XLV, 441. 3'. Copie de la lettre écrite par M. Pétion à M. Roederer, le 20 juin, 1792, 5 heures du matin. Original in *Arch nat.*, F^o4774¹⁰. No. III. 4'. Copie de la lettre écrite aux maire et officiers municipaux, administrateurs de police, par le directoire du département, 20 juin, 1792, à cinq heures du matin. Also found in *Revue rétrospective*, 2 série, 166, and *Arch. parl.*, XLV, 442. No. IV. 5'. Copie de la lettre écrite au commandant générale de la garde nationale, par le directoire du département de Paris, 20 juin, 1792, à cinq heures et demi du matin. Also in *Revue rétrospective*, 2 série, I, 167. No. V. 6'. Copie de la lettre écrite au ministre de l'intérieur, par le directoire du département de Paris, 20 juin, 1792, à six heures du matin. Also found in *Revue rétrospective*, 2 série, I, 167, and *Arch. parl.*, XLV, 441. No. VI. 7'. Copie de la

lettre du ministre de l'intérieur au directoire du département du 20 juin, 1792. Found also in *Rapport du ministre de l'intérieur*, where it is dated nine o'clock a. m. Also in *Arch. parl.*, XLV, 442. No. VIII. (b) Reports. 1'. Rapport que fait M. de Romainvilliers, commandant-général, des faits qui sont passés dans la malheureuse journée du 20 juin, 1792, et journées antécédentes. No. XV. Addition au rapport que le commandant-général a eu l'honneur de présenter au département. No. XXXI. Printed also in *Hist. parl.*, XV, 147, and in *Revue rétrospective*, 2 série, I, 214. 2'. Rapport du chef de la deuxième légion, à MM. les administrateurs du département, sur l'ordre qu'il en a reçu concernant l'affaire arrivée au château le 20 juin, 1792 (Aclocq). No. XVI. 3'. Rapport de Terrier au directoire du département concernant l'ouverture de la porte de la cour royale, 26 juin, 1792. No. XVIII. Printed in *Revue rétrospective*, 2^e série, I, 202. 4'. Rapport de l'événement arrivée au château des Tuileries le 20 juin, 1792. Signed by Lagarde, adjudant-général de la 4^e légion. No. XIX. 5'. Événements du 20 juin, 1792, signed Carle, 1st lieutenant colonel, 30th division. No. XXI. 6'. Événements de la journée du mercredi 20 juin, 1792, signed Rulhière, Col. 29th division of Nat. guards. No. XXIV. 7'. Rapport de Pierre Moiteaux, gendarme of the 29th division of Nat. gendarmerie. No. XXV. 8'. Rapport de M. Lassus, Événements de la journée du 20 juin, 1792 (1st Captain of 29th division of Nat. gendarmerie). No. XXVI. 9'. Rapport de Louis Marotte, adjudant (of 29th division of Nat. gendarmerie). No. XXVII. 10'. Rapport de Jean Forêt (gendarme, 29th division of Nat. gendarmerie). No. XXVIII. 11'. Copie du rapport du chef de la quatrième légion, sur la journée du 20 juin, 1792, signed Mandat. No. XXXIV. 12'. Rapport de ce qui s'est passé dans le bataillon du Val-de-Grâce et conduit des deux commandants de ce bataillon, la journée du 20 juin, 1792, avec les pièces justificatives à l'appui, certificats véritables par M. Saint-Prix, commandant en chef. No. XXXV. 13'. Rapport de Pinon (chef du 5th légion). No. XXXVI. (c) Declarations. 1'. Déclaration de Leclerq (commandant en chef, 4th bataillon, 5th légion). No. VII. Also in *Revue rétrospective*, 2^e série, I, 169. 2'. Déclaration du commandant du deuxième bataillon de la quatrième légion et plusieurs grenadiers et volontaires du même bataillon (signed Perré, Berger, Blouet, Sallier, Stadel, Lesecq, Duhaviel and Calame). No. X. 3'. Déclaration du Sieur Bidault le jeune. No. XI. Also in *Hist. parl.*, XV, 162, and *Revue rétrospective*, 2 série, I, 205. 4'. Déclaration du sieur Lecrosnier,

négociant grenadier du bataillon de Saint-Opportune. No. XII. Also in *Hist. parl.*, XV, 163, and *Revue rétrospective*, 2^e série, I, 205. 5'. Déclaration du sieur Gossé, grenadier volontaire du bataillon de Saint-Opportune. No. XIII. Also in *Hist. parl.*, XV, 163, and *Revue rétrospective*, 2^e série, I, 210. 6'. Copie de la déclaration de M. Guibout, grenadier du bataillon de Saint-Opportune. No. XIV. Also in *Hist. parl.*, XV, 164, and *Revue rétrospective*, 2^e série, I, 211. 7'. A messieurs du directoire du département de Paris, signed Jaladon volunteer, 4^e bataillon, 1st légion. No. XVII. Also in archives of the ministry of justice. 8'. A messieurs composant le directoire du département de Paris, signed Maserey. No. XXIII. 9'. Déclaration du chef de la sixième légion de la garde nationale Parisienne, signed LaChesnaye. No. XXIX. 10'. Déclaration faite à MM. du directoire du département de Paris par Leclerc, adjudant general de la première légion de la garde nationale Parisienne sur le fait dont il a été témoin dans la journée du 20 juin, 1792. No. XXX. 11'. Déclaration de Pierre Joseph Bron, Suisse de la Porte Royale. No. XXXII. 12'. Déclaration du Sieur Desmousseaux (Substitute of the Procureur-syndic of the commune). No. XXXIII. 13'. Déclaration du Saint-Fontaine (volunteer of the 8th battalion of the 2d legion). No. XXXVII. 14'. Déclaration reçue par le juge de paix de la section du Roi de Sicile, signed separately by Lareynie, Turot, Mussey and one by Cuvillier, Chauvreau, Corps, Ballin and another by Le-grand. No. XXXVII. Lareynie's declaration is found also in *Hist. parl.*, XV, 116. (d) Procès-verbaux. 1'. Section de Montreuil, Procès-verbal de la protestation de MM. Bonneau et Savin, commandants du bataillon de Saint-Marguerite. No. IX. Also in *Revue rétrospective*, 2^e série, I, 175. 2'. Extrait du registre des délibérations du corps municipal du 20 juin, 1792, neuf heures du matin. No. XX. Also found in *Compte rendu*, 7.

- b. *Compte rendu par M. le maire et procès-verbaux dressés par les officiers municipaux, sur les événements du 20 juin, 1792. Réimprimés par ordre du corps municipal, Paris, 1792.* This collection contains the following documents: (1) Decrees. (a) Arrêté du corps municipal 8 juillet, 1792. (b) Arrêté du conseil général de la commune, 16 juin, 1792. Also in Ternaux, I, 137. (c) Arrêté du directoire du département, 19 juin, 1792. Also in *Rapport du ministre de l'intérieur à l'assemblée nationale sur les précautions prises relativement aux événements du 20 juin, 1792.* (d) Arrêté du corps municipal, 20 juin, 1792. Also in *Proclamation du roi et recueil de pièces.* (2) Reports of municipal officers. (a) Conduite tenue par

M. le maire de Paris à l'occasion des événements du 20 juin, 1792. Also in *Hist. parl.*, XV, 170. (b) Procès-verbal dressé le 20 juin, 1792, par MM. Mouchet, Guiard et Thomas, officiers municipaux. Also in *Hist. parl.*, XV, 124, and *Revue rétrospective*, 2^e série, I, 172. (c) Procès-verbal dressé le 20 juin, 1792, par MM. Mouchet et Boucher-Saint-Sauveur, officiers municipaux. (d) Procès-verbal dressé le 20 juin, 1792, par M. Mouchet. (e) Procès-verbal dressé sur les événements du 20 juin, 1792, par M. Patris, officier municipal. (f) Procès-verbal dressé par M. Perron, officier municipal sur les événements du 20 juin, 1792. Also in *Hist. parl.*, XV, 120, and in *Revue rétrospective*, 2^e série, I, 170. (g) Procès-verbal dressé sur les événements du 20 juin, 1792, par M. Sergent, administrateur au département de la police. (h) Procès-verbal dressé le 20 juin, 1792, par M. Boucher-René, officier municipal. (i) Procès-verbal dressé par M. Borie, officier municipal, sur les événements du 20 juin, 1792. (j) Procès-verbal dressé par Hù, officier municipal, sur les événements du 20 juin, 1792. (k) Procès-verbal dressé par M. Champion, officier municipal, sur les événements du 20 juin, 1792. (l) Déclaration de M. J. J. Leroux, sur les événements du 20 juin, 1792. (m) Déclaration de M. Jallier, officier municipal sur la journée du 20 juin, 1792.

c. *Revue rétrospective*, 2^e série, I, 1835. (1) Letter from Pétion's office in his absence to Roederer, June 8, 1792; (2) Letter of Terrier to the directory, eleven a. m., June 20, 1792; (3) Deliberations of the directory, 11:30 p. m., June 20, 1792; (4) Letter of Terrier to the directory, 11 p. m., June 20, 1792; (5) Letter of the commissioners to Roederer, two o'clock, June 30, 1792; (6) Letter of Roederer to Manuel, two-thirty o'clock, June 30, 1792; (7) Letter of Roederer to the commissioners, nine o'clock, June 30, 1792; (8) Rapport fait au conseil du département par MM. Garnier, Levillard et Demantort, commissioners named by the council of the department to report on June 20, 1792.

d. Aulard, F. A. *La société des Jacobins, recueil de documents pour l'histoire du club des Jacobins de Paris*. 5 vols., Paris, 1892.

e. Brette, Armand. *Recueil de documents relatifs à la convocation des états généraux de 1789*. 3 vols., Paris, 1894.

f. Rambaud, A. *Recueil des instructions données aux ambassadeurs et ministres de France depuis les traités de Westphalie jusqu'à la révolution française, 1749-1789*. Paris, 1890.

g. *Rapport du ministre de l'intérieur à l'assemblée nationale sur les précautions prises relativement aux événements du 20 juin*. This report was made June 21st and contains the following letters supporting it: (1) Letter of Terrier to the directory, 2:30 p. m., June 19, 1792. (2) Letter of the directory to Terrier, June 19, 1792. (3) Letter

of the directory to Terrier, 7 a. m., June 20, 1792. (4) Letter of Terrier to the directory, 8 a. m., June 20, 1792. These four letters are also found in *Revue rétrospective*, 2^e série, I, 163 ff., and in *Arch. parl.* (5) Letter of Terrier to the directory, 8 a. m., June 20, 1792 (second letter). (6) Letter of directory to Terrier, 9 a. m., June 20, 1792. (7) Letter of Terrier to directory, 9 a. m., June 20, 1792. Also found in *Proclamation du roi et recueil de pièces*, No. VIII.

h. Ternaux, I, 404.

- (1) Extrait du procès-verbal des déclarations reçues par le juge de paix de la section des Tuileries sur la journée du 20 juin, daté au commencement du 25 juin, 1792. (2) Rapport d'Alexandre. (3) Extrait du rapport fait par Santerre au maire. (4) Ouverture de la porte de la cour royale, Laporte to Terrier, June 27, 1792. Original in Archives nationales; F⁷3688¹.

2. Sources Independently Printed

a. DOCUMENTS.

- (1) *Procès-verbal de l'assemblée nationale imprimé par son ordre*. Paris, 1792.
- (2) Guingerlot. Declaration of Guingerlot, Lieut. Col. 30 Div. Gendarmerie, June 25. Also found in *Archives historiques, artistiques et littéraires*, II, 365, Paris, Etienne Charavay. Original in Arch. nat., F⁷3390. Guingerlot was on the scene and played an important rôle on June 20. This text is only a rough draft of his deposition.
- (3) Rougeville, M. de. *Déposition sur les tristes événements de la journée du 20 juin, 1792, comme témoin oculaire et réflexions politiques par M. de Rougeville, Lieut. Col. de Cavalerie Chevalier des ordres militaires, St. Louis et de Cincinnatus*. Original in Arch. nat., C 222, No. 160¹⁵².
- (4) *L'almanach royal de 1792*.

b. CORRESPONDENCE AND JOURNALS.

- (1) Blanc-Gilli. *Lettre d'un député de l'assemblée nationale au département des Bouches-du-Rhône au sujet de l'attentat et des désordres commis au château des Tuileries, le 20 juin*. Paris, 21 juin, 1792. The original is in the Archives nationales, AD¹102. Blanc-Gilli was an eye witness of the events he describes and wrote June 21. The letter is published in pamphlet form.
- (2) Flammermont, Jules. *Négociations secrètes de Louis XVI et du baron de Breteuil avec la cour de Berlin (décembre 1791-jullet 1792)*. Paris, 1885.

- (3) Geraud, Edmond. *Journal d'un étudiant pendant la révolution, 1789-1793*. Chalmann Levy, Editor, 1890.
- (4) Glagau, Hans. *Die französische Legislative und der Ursprung der Revolutionskriege, 1791-1792*. Berlin, 1896, p. 318-360. 1'. Mercy an Kaunitz, Brüssels, den 16 Mai, 1792; 2'. Mercy an Kaunitz, Brüssels, den 30 Mai, 1792; 3'. Pellenc an LaMarck, Paris, Ende Mai, 1792; 4'. Remarques sur l'état actuel du moment. (Diese Bemerkungen sind von Pellenc verfasst. Sie tragen kein datum. Am 13 Juni übersandte Mercy sie an den Fürsten Kaunitz. Editor's note.) 5'. Pellenc an LaMarck, Paris, den 24 Juni, 1792; 6'. Aus einem Schreiben Mercys an Kaunitz, Brüssel, den 27 Juni, 1792; 7'. Mercy an Kaunitz, Brüssel, den 2 Juli, 1792; 8'. Abbé Louis an Mercy, Paris, den 26 Juni, 1792; 9'. Pellenc an LaMarck, Paris, den 29 Juni, 1792; 10'. Pellenc an LaMarck, Paris, den 30 Juni, 1792; 11'. Pellenc an LaMarck, Paris, den 13-15 Juli, 1792.
- (5) Goupilleau, Ph-Ch-Ai. *Lettre de député de la Vendée à l'assemblée législative, à la société populaire de Saint-Vincent de Nantes*, Fontenay, 1849. Goupilleau was an eye witness of and an actor in the events of June 20. He wrote his account at eleven o'clock the same night. Published in pamphlet form and found in Bibliothèque de la Ville de Paris.
- (6) *Journal d'une bourgeoise pendant la révolution 1791-1793. Publiée par son petit-fils, Edouard Lockroy*, Paris, 1881. These letters were written by a woman to her son and to her husband. They were not written for publication. She was present in the assembly on June 20 and sent her servant to the Tuileries to see what passed there.
- (7) Klinckowström, Baron R. M. de. *Le comte de Fersen et la cour de France. Extraits des papiers du grand maréchal de Suède, comte Jean Axel de Fersen*. 2 vols., Paris, 1878. Vol. II, p. 303, 307: 1'. Bulletin avec détails sur ce qui s'est passé aux Tuileries le 20 juin, 1792. (D'après l'original envoyé par le chargé d'affaires de Suède à Paris, Sr. Bergstedt, au comte de Fersen; dans les papiers de ce dernier.) 2'. Bulletin de ce qui s'est passé aux Tuileries le 20 juin, 1792, Paris, ce 21 juin, 1792. (D'après une lettre en chiffre d'une personne témoin oculaire. La lettre a été déchiffrée par un secrétaire du comte de Fersen.)
- (8) La journée du 20 juin, 1792, racontée par un témoin. Extrait d'une lettre écrite de Paris en date du 21 juin à Dupin et fils à Montpellier, in *Revue historique de la révolution française*, Vol. II, 597.
- (9) Lescure, *Correspondance secrète inédite sur Louis XVI, Marie-*

- Antoinette; la cour et la ville de 1777-1792. Publiée d'après les manuscrits de la bibliothèque impériale de Saint-Petersbourg, 2 vols., Paris, 1866.* The author is unknown, but was evidently a person familiar with the political and diplomatic affairs of the court. The manuscript is found in Saint Petersburg marked F. 51, *Bulletins de Versailles, 1777-1792.*
- (10) Lindet, Thomas. *Correspondance pendant la constituante et la législative (1789-1792).* Published by Amand Montier, Paris, 1899.
- (11) Mirabeau et Le Comte de La Marck. *Correspondance pendant les années 1789, 1790, et 1791, recueillie, mise en ordre et publiée par M. Ad. de Bacourt, 3 vols., Paris, 1851.* 1'. Le comte de Montmorin au comte de la Marck, Paris, 22 mai, 1792; 2'. Le comte de Montmorin au comte de la Marck, Paris, 19 juin, 1792; 3'. Le comte de Montmorin au comte de la Marck, Paris, 21 juin, 1792.
- (12) Morris, Gouverneur. *Diary and Letters.* Edited by Anne Cary Morris, 2 vols., New York, 1888.
- (13) *A Residence in France during the Years 1792, 1793, 1794, 1795: Described in a Series of Letters from an English Lady with General and Incidental Remarks of the French Character and Manners.* Ed. by John Gifford, Esq.
- (14) *Revue d'histoire moderne et contemporaine*, Nov., 1908, contains: 1'. Fidèle exposé d'un événement qui a garanti d'une mort imminente la vie de S. A. R. Madame la Duchesse d'Angoulême. Letter of J. B. Mosneron to Louis XVIII, May 19, 1814; 2'. Lettre du comte Bigot de Préameneu au comte de Pastoret, Oct. 8, 1817, XI, 116.
- (15) Vivenot, Alfred Ritter von. *Quellen zur Geschichte der deutschen Kaiserpolitik Oesterreichs während der französischen Revolutionskriege, 1790-1801.* 4 vols., Wien, 1873. Vol. II, p. 58, contains: 1'. Kaunitz an Mercy, Wien, den 26 Mai, 1792.

c. CONTEMPORARY ACCOUNTS.

- (1) Azéma. "Les journées du 20 juin et du 10 août, 1792, racontées par Azéma, député de l'Aude à la législative." *La révolution française, XXVII.* Azéma was an eye witness of what he relates and wrote at eleven o'clock on the evening of June 20th.
- (2) Bourcet. "Relation de la journée du 20 juin, 1792, faite par un garde nationale, témoin oculaire" in *Révolution française, XVII,* 72. This account was written by a former valet de chambre of the dauphin, who died in 1798. It was found among the papers of Mercy in the archives of Vienna, having been sent by Mercy to Kaunitz with a letter dated June 27, 1792. It gives a very

good account of the events of the day as seen by one who stood beside the king in the hall through which the crowd passed. The author, however, shows prejudice against the people and great devotion to the king. The document is not dated, but was evidently written before June 27. See note of Flammermont, *Révolution française*, XVII, 72.

- (3) Young, Arthur. *Travels in France during the years 1787, 1788, 1789*, 4th Edition, London, 1892.

(d) PAMPHLETS.

- (1) *Adresse au roi après la journée du 20 juin, 1792*. Anonymous. Extremely royalist in sentiment, giving nothing of value, but praising the king for his religious fortitude on June 20.
- (2) *Au roi. Une adresse par Sanois ancien aide-major de vos gardes françaises*. June 21. One of the royalist addresses sent to the king expressing horror of the events of June 20. Gives no facts, but only shows sentiment.
- (3) *Aux citoyens amis de la constitution par les fédérés*. Anonymous. This pamphlet is anti-Jacobin. It blames the Jacobins for many acts, among others for being the authors of June 20. Of value only as it reflects sentiment.
- (4) *De l'affreuse conspiration qui vient d'être découverte par des membres de l'assemblée nationale. Complot atroce d'engorger les députés patriotes de l'assemblée, M. Pétion, maire de Paris, les membres patriotes de la municipalité, du département et des sections patriotiques*. Extreme in sentiment, general in its accusations and gives nothing of value.
- (5) *Description de la fête civique donnée au roi dans son château des Tuilleries par MM. Pétion et Santerre juin 20, 1792*. Arch. Nat., C 222, No. 160¹⁵². An anonymous pamphlet full of satire and bitter accusations. Extremely prejudiced, charging Pétion, Manuel, Santerre, the members of the assembly and of the directory with responsibility for the events of June 20.
- (6) Drouet. *Note sur les événements de la journée du 20 juin, 1792, par Charles François Drouet, Lieut. de chasseurs dans la garde nationale*. This writer was in the king's apartments June 20, 1792, but wrote his account twenty-four years later, in 1816. He relates the incidents of the day, but the account is full of inaccuracies and misstatements. He claims to have rendered to the king certain services which other evidence shows he did not render.
- (7) Gouchon. *Grande discours prononcée par le patriote Gouchon au nom des citoyens du faubourg Saint-Antoine au sujet de la journée du 20 juin et pour justifier le peuple de Paris*. Im-

primée par ordre de l'assemblée nationale et envoyé à tous les départements. This pamphlet is an attempt on the part of the writer to justify himself and his fellows for the part they took on June 20, asserting that as fathers of families, citizens and soldiers they were right in what they did because of the oppression and plots of the king and nobles. He applauds the assembly for its attitude.

- (8) Joly. *Note historique sur la journée du 20 juin, 1792, donnée par le Sr. Joly sergent des canoniers de la section du faubourg du Nord.* Written at Paris, March 20, 1816. Joly was a guard in the king's apartments on June 20. He is strongly royalist and, like Drouet, claims credit for services which he did not render. His memory did not serve him well, twenty-four years after the events.
- (9) Lamar, l'abbé. *Les loisirs d'un curé déplacé ou les acts de l'église constitutionnelle, tableau historique de la journée du 20 juin ou le triomphe du bonnet rouge.* This pamphlet is found in a collection called *Pièces sur la révolution, journées fameuses*, Vol. III, 1791 à 10 août 1792. Very prejudiced and very bitter in its tone. Makes sweeping accusations against the popular leaders and the people and charges them with crimes which the writer does not prove. He calls them regicides, bandits, cannibals, etc. He mentions various incidents of the day. Every statement needs to be carefully controlled.
- (10) *Le cri de la douleur ou journée du 20 juin par l'auteur du Dominé salvem fac regem (extrait de la correspondance politique ou tableau de Paris des 22 et 24 juin).* Paris. Arch. nat. A. D. 102. Bitter in tone, royalist in sympathy, it makes many general and specific accusations which it does not prove. It can not be relied upon for statements of fact. It condemns in strong language the supposed leaders of the day, particularly the Girondins and Jacobins in the assembly.
- (11) P. M. D. V. *Lettre au roi, présenté par ses fidèles sujets relativement à la journée, à jamais exécration, du 20 juin, 1792.* Signed P. M. D. V. Another of the anonymous pamphlets which is of no value in giving facts, but which shows royalist sentiment. It is full of praise for the king and condemnation of the people for June 20.
- (12) *Paroles d'un vrai Français après l'affreuse journée du 20 juin.* Anonymous. This is royalist and extremely bitter in its attacks on the supposed leaders of the uprising. It gives unstinted praise to the king. Is of no value except to reflect sentiment.
- (13) *Preuves évidentes des trahisons de l'état-major coupable au premier chef du crime de lèse-nation; et fidélité heroïque des sec-*

tions et des soldats patriotes. Par des citoyens des faubourgs. A Paris de l'imprimerie de la Vérité emplacement de la ci-devant Bastille, 1792. This was drawn up by the citizens of the faubourgs. It is full of praise for the leaders of the people and for all connected with the cause of liberty. It accuses the king of perfidy and the directory of subservience to him. It praises Pétion, Danton, Manuel, Robespierre, and shows the sentiment in the faubourgs.

- (14) *Récit exact et circonstancié de ce qui s'est passé au château des Tuileries le mercredi 20 juin, 1792.* Paris, imp. de J. Gérouard. *Extrait de la Gazette de Paris.* The editor of the *Gazette de Paris* was Durosoy. He says that for this account he followed the notes of an eye witness, who was at the king's side. The sentiment is markedly royalist, bitterly accusing the people of murderous intentions. It is extremely prejudiced, but evidently the account of an eye witness.
- (15) *Récit générale et circonstancié des événements du vingt juin, 1792.* *Extrait du Courrier des 83 départements.* The original newspaper published by Gorsas bears the dates June 22 and 24. This account is full and accurate, though sympathy with the movement is clearly seen. Gorsas was an eye witness. The *Nouvelle correspondance politique*, XII, 1, date of June 22, 1792, a royalist paper, says Gorsas knows everything beforehand, when it is a question of an uprising.

(e) NEWSPAPERS.

- (1) *Annales patriotiques et littéraires de la France, et affaires politiques de l'Europe; journal libre, par une société d'écrivains patriotes, dirigé par M. Mercier et par M. Carra, un des auteurs.* Nos. CLII, CLXXIII, CLXXIV, *Du Jeudi, 31 Mai, Jeudi 21 juin, Vendredi 22 juin, 1792.* Bib. nat., L^c. 249.
- (2) *Chronique du mois ou les cahiers patriotiques de M. Clavière, 19 juin, 20 juin, 1792.* Bib. nat., L^c. 649.
- (3) *Chronique de Paris.* (Rédigée pour la partie de l'assemblée nationale par M. J. A. N. Condorcet.) Daily. No. 174, *Jeudi 21 juin*, No. 175, *Vendredi 22 juin, 172.* Bib. nat., L^c. 218.
- (4) *Correspondance politique des véritables amis du roi et de la patrie.* No. 63. *Du Jeudi 21 juin et du Samedi 23 juin, 1792.* Bib. nat., L^c. 661, 662. Account of June 20 written by an eye witness.
- (5) *Gazette de France.* No. 86 and 87. *Du Jeudi 21, and Vendredi 22 juin, 1792.* Bib. nat., L^c. 1.
- (6) *Journal de l'assemblée nationale ou Journal logographique.* Tome XXI, 1792. Bib. nat., L^c. 136. This journal gives the fullest and most faithful report of the meetings of the assembly on June 20, of any of the papers.

- (7) *Journal des débats et des décrets*. Nos. 266, 267, 268. Bib. nat., L²c. 147. This gives a full account of the meetings of the assembly.
- (8) *Journal du peuple, par Boyer*. No. 146. *Du Lundi 25 juin, 1792*. Bib. nat., L²c. 665.
- (9) *Journal royalist par Barruel Beauvert*. Published every other day. Nos. 3-7. *Du Mercredi, 20, Vendredi 22, Dimanch 24, Mardi 26, Jeudi 28, juin, 1792*. Bib. nat., L²c. 664. The account of the events of June 20 was written by an eye witness.
- (10) *L'indicateur ou Journal des causes et des effects*. Nos. 31, 32, 33, 34, 35. *Mercredi 20, Jeudi 21, Vendredi 22, Samedi 23, juin, 1792*. Daily.
- (11) *Le mercure universel*. Daily. *Du jeudi 21 juin, 1792, et du vendredi, 22 juin, 1792*.
- (12) *Le patriote français (par Brissot)*. No. 1046. *Du Jeudi 21 juin, 1792*. Bib. nat., L²c. 185.
- (13) *Le thermomètre du jour, par une société de gens de lettres, amis de la constitution, par J. A. Dulaure et B. Chaper, Paris, 11 août 1792-25 août 1793. Jeudi 21, et Samedi 23 juin, 1792*. Daily.
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- (16) *Révolutions de Paris, dédiées à la nation et au district des Petits-Augustins. Publiées par L. Prudhomme, à l'époque du 12 juillet, 1789*. Paris, 1792.

(f) MÉMOIRES.

- (1) Alexandre. Extracts in *Petites histoires*, 1 série, of Frédéric Masson (Paris, 1910) in the chapter entitled "L'invasion des Tuileries, Le 20 juin, 1792." The manuscript is the property of M. Masson. The portion of the *Mémoires* relating to June 20 was written later than the account contained in the *Rapport d'Alexandre* (Ternaux, I, 404 ff.) and differs from it in some details. Naturally the earlier account is the more trustworthy.
- (2) Campan, Madame. *Mémoires sur la vie privée de Marie-Antoinette*, 3 vols., Paris, 1822.

- (3) Chaumette. *Mémoires sur la révolution du 10 août, 1792, par F. A. Aulard*, Paris, 1893. Chaumette was active in revolutionary affairs from 1789 to 1794 and very influential. He was *procureur de la commune* in the latter part of 1792. He wrote his *mémoires* before the middle of 1793, for he speaks of the Girondins as adversaries yet living and refers to Pétion as living in May, 1793. (See page 33.) There is one indication that he may have written between Aug. 10 and Sept. 20, 1793. After speaking of the action of the assembly, Aug. 10, he praised it as worthy of the people it represented and expressed a wish that it might never lessen its energy (p. 64).
- (4) Dumouriez. *La vie et les mémoires avec des notes et des éclaircissements historiques, par MM. Berville et Barrière*. 4 vols., Paris, 1822.
- (5) Ferrières, Marquis de. *Mémoires*, 3 vols., par Berville et Barrière, Paris, 1821.
- (6) Oelsner, Charles Englebert. "Fragments de ses mémoires relatifs à l'histoire de la révolution française," *Revue historique*, Vols. LXIII, LXXXIII, LXXXIV, LXXXVII. These *mémoires* are published with notes by Alfred Stern. Oelsner was an eye witness of the events of June 20.
- (7) Paroy, le comte de. *Mémoires du comte de Paroy, souvenirs d'un défenseur de la famille royal pendant la révolution (1789-1798)*. Publiées par Etienne Charavay, Paris, 1895. This account was first published in 1836 by Villenave (in the *Revue de Paris*), who owned the manuscript. After his death, Charavay bought it. Paroy had apartments at the Tuileries. He was a close observer, spent much time in the gardens, cafés, and streets of Paris and in the evening gave an account to the people of the court of what had happened in these places. He was in the Tuileries, June 20, both in the apartments of the king and of the queen, and stood guard at the king's door all night (pp. 300-303). While his account is prejudiced because of his enmity to the revolution, it has much valuable material of a personal character. See the introduction by Charavay.
- (8) Roederer, P. L. *Chronique de cinquante jours du 20 juin au 10 août*, Paris, 1832. While Roederer was an actor in some of the events of June 20, there is little in his account drawn from his own independent recollections. He wrote at least thirty years after the death of Louis XVI. (See paragraph one of his introduction in which he speaks of France having been under two different régimes of fifteen years each since that event.) He made use of the published documents accessible when he wrote, reconstructing the events of June 20 as the historian who has no first hand knowledge of an event is forced to do.

- (9) Roland, Madame. *Mémoires, avec une notice sur sa vie, des notes et des éclaircissements historiques, par MM. Berville et Barrière*. 2 vols., Paris, 1827.
- (10) Sergent-Marceau. *Notice historique sur les événements du 10 août, 1792, et des 20 et 21 juin précédents*. This account was published in the *Revue rétrospective*, 2^e série, III, 328 ff. (1835). The account was written in 1828, according to the author's statements. He was one of the administrators of police and took a very active part in the events of June 20, leaving a declaration giving a full account of his work on that day. It is found in the collection published by the municipality under the title *Compte rendu, 1792*. The *Mémoires* has very little of value for June 20, giving chiefly the author's interpretation of the uprising as seen through the vista of the years.
- (11) Weber. *Mémoires concernant Marie Antoinette, archiduchesse d'Autriche et reine de France et de Navarre*. 2 vols., Paris, 1822. Weber reproduces a few letters of eye witnesses describing the events of June 20.

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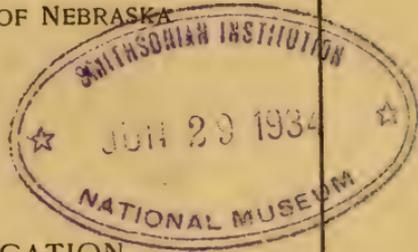
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I.—A STUDY OF CEREBRAL ANTHROPOLOGY, WITH A DESCRIPTION OF TWO BRAINS OF CRIMINALS. *

BY C. W. M. POYNTER

SYNOPSIS

SECTION I. A general statement of the problem to be dealt with in this paper.

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SECTION IX. A list of the literature relating to the Surface Morphology of the Cerebrum in Primates.

§ I

I began a study of the brains of the two criminals which forms the basis of this paper in an attempt to discover some morphological expression of the psychical character which had led those individuals to such lengths against law and order. But I was confronted at every step by the question of what constitutes a deviation from the normal and what morphological characters have a known functional significance. This difficulty impressed me so strongly with the unreliability of the average text-book on cerebral anatomy, for comparative study, that I have undertaken a partial review of the literature relating to the macroscopic study of the cerebral cortex in primates.

It has seemed to me that a tabulation of the results of the vast amount of investigation carried on in the last forty or fifty years would perhaps yield some definite facts, or at least furnish a very much more valuable group of data for comparison with my two criminal brains than I could obtain by the study of even a considerable number of brains of the type available from my dissecting rooms.

It has seemed to me that if criminal characters in morphological form exist, they are not the result of the simple act which makes the individual a law-breaker, hence a criminal, but are rather the result of perverted development, heredity, or other factors which may have been operative to perhaps the same degree in the "paupers" who supply the material for our laboratories, and that consequently nothing would be learned from such a comparison of criminals and non-criminals.

I have not brought into this study any of the more recent developments from microscopical investigations, but only work having a bearing on the theory of the existence of a criminal type and the more recent theory that the criminal brain is of an inferior order. I have attempted to bring together the more important researches on the various orders of apes, on the studies of the races both primitive and highly civilized, on the development of the sulci and gyri in the human embryo, on that condition of defective mind known as microcephaly, and on the brains of eminent scholars. I have selected from these studies those characters which seemed most nearly to represent the normal brain, and have attempted to discover what variations in form or convolution have a functional significance,—that is, for example, a pattern of fissures, which might be a common feature of a group of individuals belonging to a race or class known to be of high or low mental ability. I have collected the descriptions of all the criminal brains available to compare them for common characteristics, to make comparison of these results with the 'normal' and also with my material.

It is hardly necessary to say that the varied nomenclature encountered in such a study as this renders comparisons always difficult and sometimes impossible. The great dissimilarity of method used in investigation frequently renders the available data entirely

worthless for comparisons. Protest on my part against the chaotic condition of terminology is needless in view of what has already been said by Giacomini, Sergi, Broca, Waldeyer, Wilder, Smith and others. I will attempt to adhere to the usage of Retzius (1896) except in the occipital region where the names suggested by Smith (1904c) much more adequately express the condition found in the average brain. The appended bibliography includes, beside the articles referred to in the body of the work, many references which, while they have influenced me materially in forming opinions, I have not included in the text because they simply add to the mass of confirmatory evidence or because the conclusions are so superficial and the observations so careless as to render them almost valueless. Many of the references, I regret to say, I was unable to consult directly, although reviews and reference to them by available authors lead me to believe that their study would not have changed my conclusions in any important detail. I have attempted to list as fully as possible all literature relating to the subject.

It is not a new idea to make the criminal brain the foundation of a general study for indeed some of the most important works extant were begun in an attempt to place on a sound basis of fact some of the theories exploited by Lombroso, Benedikt and others. In such a study a number of questions at once arise which must be answered satisfactorily before an intelligent study of the criminal brain can be undertaken. First, the question of variations involves the separation of characteristics which have a morphological or functional significance from those which are simply 'individual' and without meaning. If we fail to make this separation our observations become, while facts, still valueless. So many factors may be involved that to overlook one of them will vitiate the entire result; brain weight, brain shape, complication of convolution pattern, depth of sulci, breadth of gyri, interruption or absence of sulci, may be directly related to the question of sex, race, development, locality or a great many other factors. Second, the question of variations must be considered from the standpoint of ontogeny or phylogeny. If we are able so far to follow the steps of development and evolution that a variation can

be recognized as typifying an earlier stage, we have yet to determine its significance. And lastly, after determining the morphological significance of a variation, its relation to the function of the brain as a whole or in part is a problem whose solution would have bearing on a great many questions of Criminal Anthropology. Much of the confusion that has arisen in reference to the question of a "criminal type" has been due to the failure of the observer to realize that an irregularity discovered in a criminal brain might be an "individual" characteristic, a peculiarity of race, or even a frequent condition in normal brains, and therefore not indicative of delinquency.

Back of every study are the questions of how far the different arrangement of convolutions and fissures of the brain has a true morphological significance, of what law determines these variations, of which should be considered individual and which universal, of which indicate culture and which degeneration.

While it is my purpose to deal with the subject of morphology, it has been so entwined with the question of function, especially where criminal brains are to be considered, that reference to this phase of the subject seems to be necessary.

The names of Gall and Spurzheim are connected with the first conception of cerebral localization, but to Broca is due the credit of the first fact in the science. His discovery was followed by the studies of Hitzig (1874), Fritsch (1870) and Ferrier (1873) which, while combated as are all new ideas, were confirmed by a great number of investigations in the fields both of physiology and of pathology.

Hardly had the idea of localization of function gained current recognition when the work of Flechsig (1898), Campbell (1905) and Brodmann (1905) confirmed the idea of selection of function and added new interest to the questions of surface anatomy.

While the field of cerebral morphology was almost neglected, craniology, the "spoiled child" of anthropology, filled the shelves of our museums with skulls and loaded our literature with great masses of figures and series of heterogeneous facts. The uselessness of such work for our purpose was indicated by Huxley when he said, "It should be an opprobrium for any ethnological

collection to possess a single skull not bisected longitudinally." Cunningham (1901) expressed the same idea; "The work of the craniologist, if it is to attain its full degree of usefulness, must be founded on a proper recognition of the relation which exists between the cranium and the brain." The craniologist must recognize that head-shape must be dependent on the brain for significance rather than the opposite. I believe, in view of all the knowledge we have of the brain, that all of the theories of craniology for the determination of function may be discarded as baseless. Whether the surface of the cerebrum will prove a more valuable index to the mental habits and capacity of the individual than the skull is still a question.

Spitzka (1908) said, "The more experienced we become in the examination of brains the more convinced are we that the external appearance of the cerebrum often gives the best indications of the individual's psychic powers. . . . Recent morphological studies . . . tend to show that the index of an individual's peculiarities is in the development of one or another cortical region. . . . Experience teaches us that there is a physiognomy of the brain which portrays intellectuality quite as often as does the outward physiognomy. . . . It is difficult to describe in so many words, or, that we are occasionally deceived by it does not alter the fact that we may learn (generally) to recognize and judge it." This author, however, employed criminal brains which he designated "for all practical purposes normal" for comparison in a study of elite brains.

Objections to the idea that functional efficiency is expressed in the convolution pattern will appear in the proper place. It is safe to say that until we acquire a more scientific basis than the above quotation for the expression of psychic powers the "gift of discernment" will be, perhaps, more or less difficult to acquire.

The work of Dr. Mott (1906) is encouraging, and indirectly gives weight to a part of Spitzka's conclusions. From his studies on apes he concludes that "Habits and mode of life of the animal determine the convolutional pattern of the brain and the relative superficial area of the archipallium to the neopallium"; again, later (1911), "The remarkable use the animal makes of its arms

and hands can be correlated with a remarkable expansion of the cortex in the praecentral region, as shown by the development of a broad gyrus extending from the middle of the praecentral region to form the second frontal convolution." In Dr. Mott's work we may call attention to the fact that the increase in the cortical region is directly related, apparently, to the cortex presiding over the arm and hand centers, and that no correlated change has been shown for any higher or association area.

The general statement that no work on man has given a suggestion of a relation of more or less restricted areas of cortical development to function would create a wrong impression and be incorrect, but we may assert that as yet there are available no positive data.

The study of convolution variations has been carried out along a great many different lines; some investigators have sought to tabulate the differences and reduce them to percentages. That this method is frequently used without careful discrimination is obvious from the undoubted fact that all variations are not of the same morphological value. An extreme example of this method of investigation is the work of Kohlbrügge (1909), who discovered no less than fifteen hundred variations and tabulated eight hundred.

Klaatsch (1912) suggests an entirely different method of study, at least for ethnological classifications, "nicht die kleinen individuellen Verschiedenheiten der einzelnen Furchen sind es, auf die es ankommt, sondern die Kombinationen von Windungs- und Furchungs-systemen an den hauptpartien, nicht minder aber auch auf die Gesamtform der grossen Abschnitte und des ganzen Grosshirns." From this viewpoint one does not see the open fissures of the brain but, as Spitzka suggests, a physiognomy. Since the days of Camper the classification of the human race has been based on anatomical peculiarities, with cranial morphology as the first consideration. From time to time other parts of the skeleton have been added, then the soft parts and finally the brain. Klaatsch suggests a new race classification based on his interpretation of brain differences, but as yet it is impossible to say whether it will represent a great departure from the work of

ethnologists who have studied the brain in a more exact manner. In regard to the question of psychology, racial differences, if they exist, have not been shown to have a relation to the mental characteristics that may be noticed as distinguishing the peoples studied.

The whole question of variations from the standpoint of race, sex and genius can be most comprehensively expressed in the words of Dr. Mall (1909), "For the present the crudeness of our methods will not permit us to determine anatomical characters due to race, sex or genius and which, if they exist, are completely masked by the large number of individual variations."

§ II. MICROCEPHALY

The literature contains a great number of cases, some reported in great detail and others with hardly sufficient data to be recognized as belonging in this class. It will not be necessary to present a systematic analysis of the reported cases, both because Giacomini (1890) has already done so, and because these cases are studied, in connection with this paper, only to determine whether mental defects are revealed by the convolution pattern or whether they suggest that certain variations are very suggestive of atavistic reminiscence.

Cases of microcephaly have been interesting to investigators because of the hope that they might throw some light on the questions of brain-function, because of their bearing on problems of phylogeny, and because of their obscure etiology.

While many cases had been reported previously and discussed in more or less detail, the first work to arouse general interest and produce wide-spread investigation of the subject was the memoir of Karl Vogt published in 1867. He made no original investigations, but studied cases already reported, and from these concluded that the condition must be looked upon as a partial atavism, hence the name "ape man." The storm of discussion aroused by this statement has not yet resulted in perfect agreement among investigators. Probably the idea does not belong primarily to Vogt, for Marchand says that Blumenbach in 1812 applied the term "animalmen" to these defectives. In 1873 Aeby published

a memoir in which he dealt with the other organs in addition to the brain. The next elaborate work was that of Marchand in 1880-'95, in which he analyzed the literature and discussed principally the subject of etiology. Giacomini in 1890 carefully reviewed the cases published up to that time, and introduced a classification of defectives on the basis of pathology, separating those cases which he termed microcephaly proper from cases of obvious pathological causes. He was particularly fitted for this work on account of his thorough knowledge of pathology, and, as a result, little change has since been made in his classification. Cunningham and Smith in 1895 made a study of a number of microcephalic brains, analyzing them in detail and reaching conclusions in many respects confirming those of Vogt.

The problem of etiology has been confused in the discussions of many writers and made to mean, not the cause which produced a being mentally inferior to the average of his race, but the condition of defectiveness itself; *i. e.*, the operative factor or factors are not distinguished from the condition of arrested development or arrested development and retrodevelopment. Some of the older authorities, as Jäger (1839), considered that the condition of microcephaly was produced by an arrest of development of the skull (cause of arrest not suggested), which compressed the brain and limited the growth. This idea was supported by the opinion of Virchow as to the influence of the skull and brain-growth on the early fusion of the sutures. Marchand (1895), on the contrary, concluded that the small skull in microcephaly was due to a lack of stimulus to growth through the pressure of the enlarging brain. Some authors are of the opinion that the causative factor is active on the anlage while many believe it is operative at a much later period and quote the presence of certain transitory fissures or of early normal fissures as a proof of their contention. It can hardly be said that such evidence is satisfactory. Sapolini (1870) was the first, I believe, to advance the theory that the maldevelopment of the brain was the result of faulty nutrition due to insufficient blood supply. He based the theory on a very slender evidence. Two or three recent observers

who have followed this idea evidently were not aware that Marchand refuted the theory entirely.

From time to time the theory of injury to the foetus, directly of a mechanical or of a toxic nature, or indirectly through maternal injury or through physical maternal shock, have been presented with all the assurance of original discovery. There remains the question of a pathological factor, which, if admitted, leaves us as far from the exact truth as we were in the beginning. Mingazzini (1909) seems to favor the last.

Aside from the basic cause of microcephaly we must consider what it represents: and here there is a division of opinion between a pathological manifestation, arrested development, and retrodevelopment or atavism. It seems to me that by following the work of Giacomini and Cunningham, there should be no difficulty in eliminating the question of pathology from microcephaly proper, although Mingazzini (1909) says "an examination of the brains of defectives indicates an arrest of development or the ravages of pathology, the preponderance depending on the observer."

The majority of authors consider the condition as representing an arrest of development, defined by Marchand as the result of a disturbance which the brain has suffered at some time in its development, causing development to stand still for a time, then when it proceeds it is on a changed basis and hence maldevelopment. Turner (1891) seems to agree with this idea when he says that the brain of an idiot, no matter how deformed, is still a human brain just as a deformed foot is still human.

Retrodevelopment or atavism as the interpretation of microcephaly was first urged by Vogt (1867). It is not sufficient to quote the various authors who have written in favor of this view of retrodevelopment without defining to some extent the term atavism, for it seems to have been used with varying interpretations.

Vogt recognizes some factor producing an arrest of development, that factor or another turns the process of development from its normal channel into some ancestral one, till at the completion of development the brain is perhaps more simian than

human. Virchow says, "Atavismus ist die Manifestation des ursprünglichen Gesetzes: ein pathologisches Ereigniss da gegen, in so fern es bestimmte Motive der Hemmung mit sich bringt, hindert das bestehende Gesetz, sich zu vollziehen." Topinard quotes Dally as saying, "La reproduction dans un individu ou dans un groupe d'individus de caractères anatomo-physiologiques positifs ou négatifs que n'offraient leurs parents immédiats mais qu'avaient offert leurs ancêtres directs ou collatéraux."

Cunningham and Smith (1895) find reason to agree with the theory of Vogt in that they find one of their cases more ape-like than human, but they define atavism somewhat differently. "We can not shut our eyes to the possibility that in it (case in question) we may have a tolerably faithful reproduction of the gyri and sulci which at one time were characteristic of an early stem form in man." They think a microcephalic brain need not have its development confined to any one stem. "A microcephalic brain may follow a great many different lines in its development of sulci and gyri. The difference in results attained, however, will always be found to depend on the proportion in which the normal, foetal and simian characters are present. As a rule, one or the other of these groups of characters predominate over the others." A true atavism is present only when certain ancestral features, which are omitted in the ordinary course of development, are reproduced, or certain of those parts of the phylogenetic history, which in the ontogeny of the individual have become blurred or abbreviated, reappear in a distinct and intelligible form.

Mingazzini (1895a) used the terms paleophylogenetic and atavistic reminiscences, meaning the reappearance of characters which do not occur in the ordinary development, but which have been possessed by ancestral forms. He insists that pathology is the etiological factor producing atavism. From a later study (1909), he concludes that certain anomalies predominate among microcephalics and that the brain presents, beside more or less generalized morbid processes, those rudimentary ones belonging to the foetal period. Concerning Mingazzini's position on the question of pathology as the exciting factor in the production of microcephaly, all investigations seem to point to a much earlier period

when the etiological factor must have been operative than that representing the time when the processes suggested by him are active; then too statistics will show that this condition is not the usual result of these morbid conditions.

Giacomini (1890), while admitting that microcephaly is a reminder of the general law of development, does not think it can be used in favor of the theory of descent, because it does not stand for any period in man's development.

The controversy as to whether microcephaly is a simple arrested development or atavistic reminiscence is to find solution when we can definitely state which characters are embryonal and which are simian; then, I believe, a study will show that the brains of these defectives may be placed in different classes depending on the preponderance of the characters.

Relation of structure to function is another question for which the solution has been sought in the microcephalic brain. Wagner sought to interpret normal brain function through the variations presented by these brains. Since Broca identified speech with the third frontal convolution, it has been especially investigated in microcephalic brains, but with negative results. No type of convolution or sulcus variation is constant in microcephaly even among cases of similar mental deficiency. We may then ask of what significance is convolution or fissure pattern from a psychical standpoint, what significance has the presence of an unusual or the absence of a usual convolution, what is the effect on the mind to bury a convolution normally on the surface or to elevate an area commonly at the bottom of a furrow? The only answer seems to be that the inferior mentality of the microcephalic is expressed in a (usually) low brain weight and the more frequent occurrence of unusual variations. Rüdinger (1886) says, "Dass ein Hirnorgan eine dem Grade seiner Thätigkeit proportionale Ausbildung erfährt"; and Marchand (1889) adds, "Das dem Grade der Ausbildung eines Gehirnanorgans auch dessen Function entspricht." But this is speaking only in the most general terms.

§ III. BRAINS OF SCHOLARS

Through the earnest efforts of Broca, Rüdinger, Retzius, Wilder, Spitzka and others the brains of educated minds are becoming available for study and comparison. The cases so far studied cover a number of nationalities and vocations, but the number is still so small that it is unwise to attempt to make deductions from the characters they present. It is to be regretted that there is available no group of brains representing the same class, environment and general education with which to compare the brains of those geniuses studied. From an analysis of these studies on the brains of scholars we find that no common characteristics can be discovered, which would warrant the effort, apparent on the part of some investigators, to establish an elite type. Variations of the type designated as indicative of inferiority have been observed in too small a number of brains to say that they are or are not of the same average frequency already established for the lower classes.

It is probably true that indications of mental characteristics on the brain surface, other factors being known, will be discovered through a careful comparison of the mental peculiarities of the individual and his brain. For this work the brains of scholars are very desirable, both because they represent the greatest development of the organ, and because generally the habits of mind are known.

Great caution should be used in drawing conclusions from a small number of subjects, and factors of unknown significance and importance must of necessity complicate the problem. The "accident" of a complex configuration in the brain of Gauss has been responsible for as many erroneous deductions as confluence in Benedikt's criminal type.

Present study has failed to yield any data which will enable us to select a brain of genius. Perhaps, as Kohlbrügge has suggested, variations have only a psychic significance, but if so it will take more extensive and careful examination and along new lines to interpret them. Elite brains alone will not solve the problem.

§ IV. BRAINS OF VARIOUS RACES

The studies of the cerebral cortex to discover ethnological differences has so far proved quite disappointing. Stieda (1909), in analyzing the work of Kohlbrügge (1908), finds himself in agreement with that author in the opinion that there are no racial distinctions in convolutions and fissures. Weinberg (1896) collected a list of twenty characters which have been suggested by various authors as being of possible significance. He presents a comparative study of Poles and Letts which shows some interesting percentage variations. His conclusions as to the value of these as ethnological characteristics are unsatisfactory: "Wir nicht wissen ob sie existiren oder nicht." The studies of Smith (1904c), while extremely valuable from a morphological standpoint, are not of ethnological value at present; for, as he pointed out, a determination of what variations are of value and what are "individual" must be first determined.

Duckworth (1907) presented a splendid comparative study of the brains of Australian aborigines, but the significance of variations from a racial standpoint was less a question of consideration than that of determining the degree of psychic development.

Many reports of single brains, or of a very few, from various races, are scattered through the literature, but no uniform method of description has been followed. Should the scheme of publication adopted by Retzius in his great monograph, *Das Menschenhirn*, be followed by other authors there would soon be available a literature which would be invaluable for comparative studies. There can be no doubt that so far investigators have failed to discover any constant factors of variation that will distinguish races of similar culture. Many of the evidences of inferiority in the races of low mental development have been found by observers whose work shows carelessness and superficiality. Differences exist between the brains of highly civilized and of low races, but it is a question how many of these variations are purely ethnological and how many are functional.

The suggestion has been brought forward frequently that the brains of the so-called lower races present a greater variety of variations, which suggest the embryonal or simian condition, than

that found in the races of higher culture. Such a question is of great interest from an ethnological standpoint, but I shall omit the discussion here, both because it is still an open question, and because, since we do not know the significance of the presence of these characters on the mind, we cannot know their value if they are present in the primitive races, and hence the question is not applicable to criminal degeneracy at the present time. The conclusion of Dr. Mall (1909), from a study of the American negro, is applicable here. He concludes that "With the present crude methods, the statement that the negro brain approaches the foetal or simian brain nearer than does the white is entirely unwarranted."

§ V. BRAIN WEIGHT

The question of brain weight has been studied from so many angles and so much has been written on the subject that it is out of the question in such a paper as this to attempt an analysis of results in anything like a complete or critical way. By devoting a section to the subject, I do not mean to indicate that it is of great importance in criminal studies, but rather that its extensive literature requires such recognition. Even a superficial study of the literature makes it certain that an unqualified statement of actual weight is without significance from any point of consideration. On the other hand, there is a division of opinion as to the value of brain weight as an index of race, race development or mental attainments. This is partly due to the fact that there are so many factors which undoubtedly play a part in influencing weight, which have not all been included in published figures so that satisfactory comparisons can be made. Age, body weight, height, sex and probably shape of head must all be included in any comparative study to be of value for the solution of ethnological or psychic problems.

I have collected and arranged below the brain weights for sex and race. These figures cannot however be of value in determining the relation of weight to mental superiority of race because other factors, mentioned above, which were not available, are not included.

While we may eliminate the factors of body weight, height and age in any one race by taking the average of a great number of brains, we cannot compare this average with that of another race unless these factors are constant and operate in the same way for both races. The same difficulty will obtain for sex.

This fact has been overlooked by many investigators and their conclusions are consequently valueless.

TABLE OF AVERAGE BRAIN WEIGHTS, ARRANGED BY RACES

| Race. | Males. | Females. | Authority. |
|-------------------|--------|----------|---------------------------|
| English..... | 1400 | 1250 | Quain. |
| | 1325 | 1183 | Boyd (1861). |
| | 1309 | 1162 | Thumam (1866). |
| French..... | 1322 | — | Lébert. |
| | 1358 | 1256 | Sappey. |
| | 1346 | 1195 | Blasfeld. |
| Russian..... | 1328 | 1237 | Dieberg. |
| | 1365 | — | Giltschenko (1899). |
| | 1296 | 1171 | Meynert. |
| Austrian..... | 1265 | 1112 | Weisbach (1866). |
| | 1461 | 1341 | Krause. |
| | 1372 | 1272 | v. Bergmann. |
| Swede..... | 1399 | 1248 | Retzius (1900). |
| Slav..... | 1371 | — | Giltschenko (1899). |
| Pole..... | 1366 | 1238 | Weinberg (1906). |
| Italian..... | 1320 | 1194 | Tenchini (1884). |
| Dutch..... | 1530 | — | Bordier. |
| Chinese..... | 1361 | — | Schuster (1908). |
| | 1563 | 1408 | Clapham (1877). |
| | 1503 | — | Hrdlicka (1901). |
| Eskimo..... | 1434 | 1257 | Spitzka (1902). |
| | 1398 | 1256 | Chudzinski (1881). |
| | 1216 | — | Retzius (1891). |
| Laplander..... | 1530 | — | Clapham (1877). |
| Pelew Island..... | 1333 | — | Herzog (1908). |
| Filipino..... | 1643 | — | Dana (1894). |
| Indian, S. A..... | 1396 | — | Fallot et Alezais (1890). |
| | 1288 | 1116 | Smith (1904). |
| Fellahin..... | 1305 | — | Manouvrier (1894). |
| Fuegian..... | 1234 | 1120 | Bean (1906). |
| Negro, AM..... | 1234 | — | Topinard (1882). |
| Negro, AF..... | 1170 | — | Waldeyer (1890). |
| | 1335 | 1132 | Sergi (1908). |
| Ovambo..... | — | 1201 | Sergi (1908). |
| | — | 992 | Wyman (1862). |
| Hottentot..... | — | 868 | Koch (1868). |
| | — | 638 | Marshall (1863). |
| Bushman..... | — | — | Rolleston (1887). |
| Australian..... | 1326 | — | |

Spitzka (1903*b*) collected a large number of brain weights of scholars which prove that mentality is indicated by weight if we neglect other factors. The objections stated above may be applied equally well here, for, if by the arrangement below we eliminate the ethnological factor (if such exist), we have not disposed of the others, since the number is too small to render them negligible.

TABLE OF BRAIN WEIGHTS OF EMINENT SCHOLARS

| Race. | No. Examined. | Weight. |
|-----------------------------|---------------|---------|
| American ¹ | 27 | 1519 |
| British | 14 | 1481 |
| French | 20 | 1456 |
| German | 38 | 1439 |
| Italian | 1 | 1495 |

Total number 100, Gen. Av'ge 1478 gms.

Wendt (1909) made a careful study of the relation of body-weight and height to brain weight from infancy to old age for both sexes. He concludes that the male brain is actually heavier than the female, and that weight and intelligence are directly related. Nicolucci (1881) attributes the difference in weight between the sexes not to the height and body-weight variations but to the general organization of the sexes. Pearl (1905) has made a careful analysis of statistics and concludes that they all agree in showing that the male brain is absolutely heavier than the female brain irrespective of other factors.

Topinard (1885) showed, from available figures, that the shape of the brain introduced another factor; while the brachio-cephalic brain was heavier in the male, in the female the dolico-cephalic brain had the advantage. He recognized, however, that sufficient figures were not available to make the conclusion a positive fact.

¹The word "American" is used for lack of a better word to describe those Caucasians living in the United States. I fully appreciate the fact that we can not consider them as a race in ethnological studies, for, since they represent in themselves possibly a number of races, we should have in any considerable number an absence of strong race differentiating features. I feel that they may be included in this table, since the only object is to arrive at an approximate average weight for scholars regardless of race.

A divergence of opinion exists on the question of the relation of brain weight to intelligence in the individual or in reference to races. Schwalbe thinks that an increase of brain weight, as applied to an increase of intelligence, must take into consideration body, weight and height. Virchow says that the brain-mass may be very great without increase of intelligence. Stieda (1909), in reviewing the work of Nücke, expresses the opinion that the weight is of no value as an index to intelligence. Baer (1893) notes the variations among elite brains and says that the variations, together with the fact that many men of only moderate intelligence show equal variations, illustrate the groundlessness of any contention that intelligence is based on weight. When we remember that the brain mass possesses not only nervous elements, as nerve fibers and cells, but neuroglia as well, it is plain that the increase of the latter will be effective only in a mechanical way and without any increase of psychic power.

Lamb (1904) says, "Other things being equal, the brain weight and mental capacity, in my opinion, bear a definite relation to each other." (The writer must confess that he is unable to understand on what this opinion is based.) Spitzka (1903*b*) seems to hold much the same view as Lamb and quotes as evidence of the very intimate relation between weight and mind, the work of Malicjka (1902). This observer arranged 235 brains by occupation as follows: day laborers, 1410 gm.; steadily employed laborers, 1449.6 gm.; porters, 1435.7 gm.; mechanics, 1449 gm.; teachers and clerks, 1486 gm.; scholars, physicians, etc., 1500 gm. It would be interesting to know whether the hand of chance had been entirely eliminated as a factor in choosing the occupation of some of these cases.

Spitzka (1908) concludes, "Every rule has its exceptions and, with these limitations, the inference that the intellectual status is in some way reflected in the mass and weight of the brain seems generally correct." He goes farther and from a limited number of cases concludes that the higher the intellectual occupation, the greater the weight. But if in these studies he has considered the physical characters he does not indicate the fact in his text.

Indirectly bearing on the question of the relation of weight and

intelligence are the following cases, all said to be of "average intelligence"; one reported by Chériè-Lignière (1911), a pigmy woman, weight 508 grams; another by Wilder (1916) of a man, weight 680 grams; and the latter quotes Bischoff as reporting the case of a man, weight 820 grams.

Several authorities have attempted to show that brain weight bears a relation to criminology, going on the assumption that a weight less than the average is a sign of low mentality. Rüdinger found from a comparative study of delinquents that the average weight was 1270 grams, while he considered the normal average to be 1362 grams. On the contrary, Huschka, quoted by Mingazzini, finds that the average weight for criminals is 125 grams above normal. Mingazzini (1888*d*) collected criminal brain weights which may be compared with the above tables by the following arrangement.

TABLE OF CRIMINAL BRAIN WEIGHTS, ARRANGED BY RACES

| Race | Sex | Weight. | Observer. |
|--------------|-------------|---------|-------------------|
| Dutch..... | Male..... | 1548 | Bordier. |
| French..... | Male..... | 1593 | Manouvrier. |
| Italian..... | Male..... | 1346 | Tenchini. |
| Italian..... | Male..... | 1254 | Mingazzini. |
| Italian..... | Female..... | 1178 | Varaglia e Silva. |
| Italian..... | Female..... | 1146 | Mingazzini. |

Mingazzini considered that statistics were so contradictory that no definite conclusion could be drawn in regard to criminals.

§ VI. SURFACE MORPHOLOGY OF THE CEREBRUM

The subject has been considered from so many different angles that it is extremely difficult to embrace the whole in a general description. The variations in fissures and convolutions are so numerous that all methods so far pursued have failed to establish a type for race, sex, or degree of mental attainments. Harmonizing the ideas of the various investigators in regard to fissure components has proven a great task; for some have worked from the embryological standpoint, while others have looked to the lower orders of primates for the primitive types. Indeed, there are so

many unsolved problems, so many interdependent questions, that we may repeat the question of Retzius (1896): "Giebt es denn, die Hauptzüge ausgenommen, wirklich für die gesammte Anordnung der Furchen und Windungen des Gehirns allgemeingültige morphologische Gesetze?"

The lack of uniformity in nomenclature and the absence of illustrations or the employment of diagrammatic figures by many authors makes a comparison of statements often most difficult. The most that I can hope to do is to place the various investigations in such a relation to each other that one may have some idea of the evidence in favor of one side or another of the question under discussion. It will be necessary to disregard great masses of data which have been collected under the impression that fixed morphological characters were being dealt with, but which, later investigations have proven, are only the accidental foldings brought about during development, and are so inconstant as to be meaningless.

The question of asymmetry is referred to only in its relation to criminal brains, to satisfy those investigators which from time to time have endeavored to show that such a condition was an indication of delinquency. That there is a difference in weight and fissure pattern between the right and left hemispheres in the brain of normal man, there is no question, but that the absence of such variation indicates low mentality, or that wide variation has a psychic significance, has not been proven; consequently we have no right to assume in the case of the individual criminal that the presence or absence of asymmetry is in any way related to delinquency. While the data in a great many studies is presented for the two sides separately, in the subsequent pages I shall combine these and consider the results for the hemisphere, regardless of whether it has appeared more frequently on one side than on the other.

Marshall (1875) said of asymmetry, "I believe that some at least of this is due to the right-handedness of man." Cunningham (1902) could find no structural characters to account for the functional superiority of the left cerebrum, but said, "I shall believe that it exists, and am persuaded that inquiry has been con-

ducted along wrong lines." "No constant or definite difference can be detected in that area of the cortex associated with speech centers on the two sides, and yet only the left is functional." (Giacomini (1881), from an extensive study, was able to find no psychical significance in the variations between the two sides, and makes the general conclusion, "Le anomalie morfologiche degli organi pari o delle loro parti prediligono il lato sinistro.")

The so-called transitory fissures, which appear about the third month, have been described by many observers, and were made the subject of very careful study by Cunningham (1892), who considered them of morphological importance and was influenced in many of his conclusions by them. Bischoff (1868) was the first, I believe, to express doubt as to their manner of origin. Again Marchand (1889), while accepting the fissures which appear on the mesial surface of the hemisphere, doubted the existence of such on the lateral surface. Hochstetter (1898) expressed very positively the belief that all so-called transitory fissures were the result of decay or the action of the hardening fluids. Retzius (1902) reported a 55 mm. embryo which had been obtained under very ideal conditions and which was most perfectly preserved, showing a perfectly smooth cerebral surface. Mall (1902) concluded from his observations that the condition was produced post mortem.

Symington (1901) was not in accord with the views of Hochstetter, and showed that these fissures were present in preserved material. Smith (1904c) dismissed the whole question as settled in the negative by the work of Goldstein, Mall, and Retzius.

The etiology of the permanent fissures of the human cerebral cortex of man and the influences which tend to determine their arrangement are quite fully reviewed by Chiarugi (1886) and Saporito (1901). The former concludes that the cerebral convolutions have their principal origin in the disproportion of the brain in front to the cavity of the skull and the reciprocal mechanical influence from the various parts of the brain; it is through heredity that the modifications so produced in the condition of the cerebral surface are transmitted, accumulated, become constant and independent of the first determining cause. Special mechan-

ical influences do not fail to present themselves in every subject, but they determine only individual, not constant variation. These conclusions are in accord with the opinion of Turner, who believes that the production of a convoluted surface may be regarded, in the main, as a physical problem. Smith also uses the argument of mechanical forces to explain the arrangement of the fissure pattern in the occipital region of man. Sergi (1910) has expressed the factors very clearly as "a mechanico-functional" condition, because that complexity of causes, to which is due the origin of a sulcus, is represented by a fundamental factor which is the functional necessity of enlargement of the cortex within a determined zone; enlargement which, in its own time, ought to sustain a whole series of mechanical necessities, thence a form and relation which can be reduced to a scheme.

Eberstaller (1884) says of the formation of the convolutions, "Die Bildung der Hirnwindungen nicht aus äusseren Gründen, und durch mechanische Einflüsse der Umgebung, zum Beispiel, Schädelgehäuse, Blutgefässe und der gleich, erfolgt, sondern aus inneren Bedingungen und dass die relative Grösse eines Rindenbezirkes Hand in Hand geht mit seiner functionellen in-aus-pruchnahme. Vom anatomischen Standpunkte kann man das mit gutem gewissen des Körpers entnommen sein können, belegen nur über die physiologische Dignität der Theile in Sinne der Localisationstheorie sind wir annoch zu wenig unterrichtet," which in the light of Smith's work coincides with Chiarugi.

Smith (1904c) in his memoir takes up the question of the significance of embryological evidence which Cunningham had so extensively employed in interpreting the morphology of the cerebral fissures, and says, "Experience teaches . . . that embryological data relating to sulci need to be constantly checked by the more certain evidence yielded by the examination of large numbers of adult brains and by comparative and histological studies, because the latter are a much surer and more fruitful source of unequivocal information."

Of more importance than the embryological is the comparative study which here, as in other fields, has been very helpful in clearing up the obscure questions which have pervaded the sub-

ject. A glance at the literature will show the enormous amount of work that has been done during the last two decades. Much of the earlier work has been made worthless by recent investigations, and still many questions of homology are unsettled.

From the earliest period of the study of the cerebral cortex it has been believed that the degree of intelligence is indicated by the convolution pattern, and as the individual observer has discovered what to him is satisfactory evidence for or against this idea, he has joined the controversy. If a character of the ape brain appears in man, is it an indication of mental inferiority; is a fissure of the type found in the embryo, when persistent, a psychic handicap to the individual; or is a fissure, constant in the lower races, when present in an individual of a higher civilization, an indication of inferiority to his race? These and other like questions must undoubtedly be answered in the negative until we have a more exact method of investigation than any so far employed.

Sergi (1910a) does not believe in attempting to homologize various fissures or convolutions between man and apes, for he does not admit a phylum between the anthropoids and man, and the one and the other constitute diverging branches which can have homologies develop only in the branches. This idea has been similarly expressed by Kohlbrügge (1909), who considers the Anthropoidae highly specialized forms springing from a different branch than that for man, and consequently the two cannot be brought into close comparison of structures. Smith (p. 126, 1904c) has called attention to the too broad use of embryology in the solution of morphological problems. The acceptance of these ideas would mean the elimination of a part of the published work. But perhaps this would not prove a great loss to the science for the great mass of heterogeneous facts derived from such investigations have so far failed to yield a classification indicating morphological significance.

Kohlbrügge (1908) thinks that the lack of ~~race~~ characters in the convolution pattern in no way proves that it is not related to the psychic side of the individual. It may well be that these fissure forms, so far unintelligible, are the key to character (not

Fähigkeit) ; and since all imaginable characters are registered in the various races, we have all imaginably constituted brains to study. I will not farther burden this paper with beliefs or disbeliefs, many of which have been expressed by ordinarily careful scientists who have been so far biased by personal feelings as to express opinions without sufficient basis in investigations to warrant them.

The question of sex characters of the cortex has been discussed by a great many investigators, but so many points having no relation to this paper are involved that a summary will be omitted. That in certain features there is a difference between the sexes, there is no doubt, but they are not so marked as to make the determination of the sex of the individual brain possible. I have already quoted Dr. Mall's conclusions on page 7.

Both Waldeyer and Mall have suggested that possibly character variations may have a relation which the past methods of study would not succeed in revealing. It is possible that complexes have an interrelation or are constantly transmitted through the male or female line. Unfortunately up to the present time, material for such study has been wanting. See Waldeyer (1907), and Spitzka (1901 and 1908).

THE NEOPALLIUM

The Sylvian and central regions. Lobus Frontalis. Lateral Surface: The boundaries of the lobus frontalis are, laterally the fissura Sylvii and the sulcus centralis, mesially and beneath the borders of the rhinencephalon (Retzius 1896). It was early considered the seat of mind. Huschka (1854) made comparative measurements on twelve casts of the frontal and parieto-occipital regions and believed that he found a difference for sex. Rüdinger confirmed these findings for the foetus and Chiarugi for the adult. Mingazzini, Cunningham and Eberstaller, on the contrary, found these measurements variable. Following these observers, numerous investigators have added evidence to one side or the other of the controversy. Sergi (1910c) has very carefully reviewed the subject, and shows that the various methods of measurement used and the differences in material might easily account for the

variation in results. Until a uniform method for measurements is adopted, we are not in a position to express any opinion as to the comparative development of the frontal and parieto-occipital regions. It is even impossible to compare the work of Cunningham and Eberstaller, for the former expresses his results as an index, while the latter uses the direct measurements. The most we can say is that the variability of development between the frontal and parieto-occipital regions has been proven by the work of Sergi and others, and that it appears to have an ethnological, if not a sex, value.

Hitzig (1874), from a comparative study, concluded that the development of the frontal lobe kept pace with the growth of intelligence. While this may be true for comparative studies, it has not proved true for man alone.

The Fissura Sylvii: The fissura cerebri lateralis (Sylvii) embraces the *fissura Sylvii propria* (Retzius) (das ausserer Hauptstück der Fissura Sylvii of Eberstaller), the *ramus posterior ascendens*, *ramus posterior descendens*, and two anterior branches, *ramus anterior ascendens* and *ramus anterior horizontalis*.

The variations of the fissure are: Cunningham and others have placed great stress on the direction it takes, *i. e.*, the angle made with the horizontal plane. Retzius does not consider any of its variations especially significant. The termination of the fissure may be by a single limb posteriorly. Retzius found this condition in 30 per cent. Anteriorly either the *ramus ascendens* or *ramus horizontalis* may be wanting or the two may be joined to form a "U," "V" or "Y." These variations will be farther discussed with the opercula. Cunningham (1892) and Eberstaller (1890) both found a variation between the right and left sides, the left fissure being longer. The termination of the *fissura Sylvii* through confluence with some other fissure has not been generally studied. In my table I have collected all the data available, but have not distinguished between the various fissures which may take part in this confluence, *viz.*, *sulcus temporalis superior*, *sulcus interparietalis* and *sulcus transversus*.

Sylvian Opercula: These opercula have attracted a great deal of attention because their degree of development has been con-

sidered in relation to the development of the entire cerebrum, and consequently a measure of mentality. The ramus anterior ascendens and ramus horizontalis of the fissura Sylvii were first clearly explained in their developmental relation to the opercula by Cunningham (1892). He found that the presence of both, and widely separated, indicated that the operculum intermedium is well developed; consequently, in a study of the brain, opercular development can be readily expressed in terms of the type of arrangement of these rami. Eberstaller (1890) called attention to the fact that distinction need not be made between the limbs as to which was represented, when only one sulcus is present. He found two limbs present in 45 per cent., Cunningham in 57.5 per cent. and Retzius in 86 per cent. Smith (1903*b*) disagreed with the above-quoted investigators in regard to the development of the opercula and the rami anterior ascendens and horizontalis in that "neither of the anterior limbs of the Sylvian fissure, as commonly interpreted is a definite morphological feature for which an exact homology can be found in another brain, . . . the ramus horizontalis is merely the anterior end of the sulcus suprasylvius, and its upper lip is what I shall call the dorsal operculum." "In a certain number of these cases the so-called ramus ascendens is secondarily formed by the bending down of the anterior part (operculum frontale of Cunningham or intermedium of Retzius) of the dorsal operculum (mihi); this produces a kink in front of Eberstaller's diagonal sulcus, and this kink is the 'ramus ascendens.'" He also concludes that when a single ramus is present, it is the representative of the "ramus horizontalis" of most authors. These ideas are based on the study of Egyptian and Sudanese brains.

The idea that partial development of the opercula, leaving the insula exposed, is an indication of low brain development, is quite generally accepted. Chérié-Lignière (1911) quotes Giacomini as saying that the lack of, or slight development of, the anterior rami fissura Sylvii, which is always joined with a rudimentary development of the inferior frontal convolution and defective development of the insula, are signs of microcephaly of high degree. Wilder (1910) speaks of the insula as being exposed in

the brain of Chauncey Wright. Rüdinger (1882) declared regarding the lower races, that, until a great many more brains of the so-called lower races had been studied, we could not say whether an exposed insula was a characteristic of such brains. In view of all the investigations so far made, it is safe to say that for the individual a covered insula does not mean high mentality or race. Symington's (1901) interpretation of the difference between man and the apes would furnish an explanation for all the indications of low order of development that an exposed insula would seem to imply. "The fronto-parietal operculum presses down and backward, resulting in the depression of the fissura Sylvii—farther to judge from the oblique direction of the fissure in apes the condition is peculiar to man—due to the differentiated hand and face centers. The greatest increase of cerebral surface is in the association centers of Flechsig." Except for speech, there is relatively no great increase in the motor demands of man over idiots and apes.

Sulcus Centralis: Contrary to the opinion of Gratiolet, Bischoff and others the sulcus centralis should be considered the posterior boundary of the lobus frontalis. As in the case of the fissura Sylvii, I will not quote the various indices and measures, for the divergence of methods makes a comparison impossible.

Usually the sulcus centralis begins at a short distance above the fissura Sylvii, but in a variable percentage of cases it is entirely or partially confluent with the Sylvian fissure. Eberstaller believes that such a confluence is established through the sulcus subcentralis anterior or posterior.

The first report of a communication between the central and Sylvian fissures was made by Turner (1866), while Parker (1879) quotes Bischoff (1868) as saying that such a confluence never occurs. Mikloucho-Maclay (1884) reported confluence twice on the right of the brains of three Australians, and expressed the opinion that the condition was not uncommon among natives. Benedikt (1879) found in 19 per cent. of the cases (criminals) examined, a shallow connection with the fissura Sylvius. Giacomini found this connection twenty-one times in 336 hemispheres, Retzius in 23 per cent., Saporito in 5 per cent.,

Cunningham in 33 per cent., Sernoff in 12.5 per cent., Weinberg in 14 per cent., Tenchini in 14 per cent., and Eberstaller in 24 per cent. These figures represent a large number of brains and extensive distribution as to race. It seems to me that there is not sufficient divergence in the figures to lead one to believe that there is any significance in the condition, at least from a psychical standpoint. Smith (1904) thinks such data useless, since the condition can only represent the result of a purely mechanical process in the development of the cerebrum.

CASES OF INTERRUPTION OF THE SULCUS CENTRALIS

| Author. | No of Brains | No. of Cases Found. |
|------------------------------|--------------|---------------------|
| Bjaschkow (1886) | | 2 |
| Brevor (1906) | | 1 |
| Dana (1894) | | 1 |
| Debierrè (1891) | | 1 |
| Eberstaller (1890) | 100 | 2 |
| Féré (1876) | 800 | 4 |
| Giacomini (1884) | 336 | 1 |
| Giannelli (1908) | | 4 |
| Heschl (1877) | 1087 | 6 |
| Ladame (1900) | | 1 |
| Lattes (1906) | | 1 |
| Leggiadri-Laura (1900) | 484 | 3 |
| Saporito (1898) | 67 | 9 |
| Seitz (1886) | | 1 |
| Spitzka (1902a) | | 1 |
| Wagner (1862) | | 1 |
| Tenchini (1891) | 114 | 15 |
| Thomson (1911) | | 2 |
| Wilder (1889) | | 2 |
| Waterson (1907) | | 1 |
| Weinberg (1906) | 50 | 2 |

The superior end of the sulcus centralis may reach beyond the border of the hemisphere or terminate on the superior surface. Union of this extremity with the sulcus cinguli has been described by Benedikt, but I have been unable to find any other case of such confluence recorded. Weinberg (1902) found that the sulcus reached the mesial border or beyond in 22 per cent., Retzius in 64 per cent., and Tenchini (1883) in 5 per cent. Sergi (1904)

found the bifurcation of the upper end of the sulcus centralis in a Javanese female babe, and quotes Giacomini as having found the condition four times in his series of brains; all cases being in women.

The sulcus centralis develops in two portions, and this may be the interpretation of the condition known as an interrupted sulcus. Retzius considers the condition very rare, having never encountered it except in the foetal brain about the end of the sixth month. While we may look on the condition as indicative of arrested development, there is no evidence to show that it is in any way related to limited mentality. The above table represents all of the cases I have been able to find in literature, and the number of brains in the series in which they were found.

The duplication of the sulcus centralis is a still more infrequent condition. Sperino (1901*a*) reports finding it in the brain of Dr. Giacomini; it is interesting to note that Giacomini is the first to report the condition. Sperino also collected the cases from literature as follows.

TABLE OF REPORTED CASES OF DUPLICATION OF THE SULCUS CENTRALIS

| Author | No. of Hemispheres | Remarks. |
|------------------------------|--------------------|--|
| Giacomini (1882) | 1R, 1L. | Idiot. |
| Funaioli (1883) | 1R, 1L. | Normal woman. |
| Legge (1884) | 1R. | Berbera woman. |
| Tenchini (1885) | 1L. | Criminal. |
| Valenti (1890) | 1R, 1L. | Suicide. |
| Debierre (1893) | 1L. | — |
| Mondio (1895) | 1R, 1L. | Criminals. |
| Poirier (1895) | 2. | Cases of Vanherseke. |
| Saporito (1898) | 2R, 3L. | In women. |
| Tricomi-Allegra (1900) | 1R, 1L. | Criminals. |
| Varaglia (1900) | 1L. | Criminal woman. |
| Focacci (1900) | 1R. | Woman. |
| Sperino (1901) | 1R, 1L. | Brain of Giacomini and of a criminal. |

It is questionable whether all of these cases are true duplications of the sulcus. Sperino questions one of Mondio's cases, that of Legge, and some of those of Saporito; Giacomini, likewise, questioned the latter. This list does not include the case claimed

by Calori (1873), of which Dr. Wilder (1900) says, "Upon the whole, with all due deference to the anatomist just named, I now think that a genuine case of reduplication of the central fissure is yet to be observed." Reported cases, he thinks, belong in the same class as the case he mistakenly reported in 1894, viz., secondary fissure formed by the union of the sulcus subcentralis and the sulcus retrocentralis. Until we understand more perfectly the morphological significance of the sulcus centralis, it seems to me hardly safe to say that reduplication cannot occur, especially in view of the number of observers who will have to be in error in their interpretation. As to the case of Calori, Giacomini did not consider that a case of true reduplication, and, in discussing it, insisted that we must be very cautious in forming our conclusions, since a well marked postcentral fissure might, as here, be taken for a case of true reduplication. Connection between the sulcus centralis and the fissures immediately in front of or behind it is of frequent occurrence, and may be considered as normal. See table, page 000.

The *Sulcus Praecentralis* (B.N.A.): This sulcus cannot be discussed as such, but must be considered as two sulci or fissure integers, *sulcus praecentralis inferior* and *sulcus praecentralis superior*. The sulcus praecentralis was figured by Gratiolet, but not named. Pansch considered it as a ramus of the sulcus frontalis medialis. Turner identified it with the ascending ramus of the fissura Sylvii, and considered its separation by a bridging convolution as an exception. Ecker found the fissure typical after the sixth month of embryonal life, and considered it an independent fissure integer. He never saw a union with the fissura Sylvii, but considered that, when it did occur, it would always be behind the ramus ascendens Sylvii. It is now generally conceded that, as above stated, there are two separate integers. The sulcus praecentralis inferior is made up of two parts, a vertical and a horizontal ramus, the latter called by Cunningham the ramus horizontalis. It is variable and may escape observation. He found it absent in only 8.5 per cent. It is probably the ramus anterior of Eberstaller and the mesial praecentral sulcus of Sernoff.

Eberstaller has found that the vertical portion may communicate with the fissura Sylvii through the sulcus subcentralis anterior or the sulcus diagonalis (Eberstaller). Cunningham thinks that when connection exists with the fissura Sylvii, an annectant gyrus can always be found in the depth of the fissure. Retzius finds confluence through the sulcus subcentralis in 9 per cent., and through the sulcus diagonalis in 38 per cent. Cunningham finds connection through one or the other in 42 per cent., and Giacomini in 63 per cent.

The most frequent connection of the sulcus praecentralis inferior is with the sulcus frontalis inferior, which, on this account, has been considered as a part of the inferior frontal complex (Jensen). Retzius finds this connection in 77 per cent. and Eberstaller in 76 per cent.

The union of the sulcus praecentralis inferior and superior is not unusual as shown by the figures, Retzius 23 per cent., Cunningham 32 per cent., and Eberstaller 24 per cent. The sulcus praecentralis superior was first recognized as an independent integer by Jensen, according to Retzius. Its various connections already spoken of constitute its variations, with the exception of an anastomosis with the sulcus frontalis superior and the sulcus paracentralis medialis (Eberstaller). The fissure may terminate superiorly in one or two branches, and Cunningham has shown that it is made up of two parts which may remain separated, Retzius finds in 38 per cent. Communication with the sulcus frontalis superior is the normal condition. Eberstaller finds it a constant condition, Retzius in 86 per cent., and Duckworth in 41.2 per cent., for embryos. Farther study is necessary to determine whether separation is an indication of arrested development. Cunningham describes an inconstant fissure at the mesial extremity as the sulcus praecentralis marginalis, which Duckworth finds present in 50 per cent. of Australian brains.

The *Sulcus Frontalis Mesialis*: This sulcus was described by Benedikt as sulcus 'ϕ,' and later named by Cunningham, who found it present in 100 per cent. of Caucasians; Retzius considered that it belonged to the sulcus frontalis superior. Its absence in Simiidae and low percentage (.17) in embryos (Duck-

worth) have led to the conclusion that it might be looked upon as an indication of high brain development; but the question has received too little attention for us to form any conclusions.

The Sulcus Frontalis Superior: The sulcus frontalis superior has been fully described by Eberstaller. It may appear as a continuous fissure independent of connections; or it may be connected at one or both ends with other fissures; or it may be broken up into two, three, four or five segments. Reported observations seem to show a frequent confluence anteriorly with some other fissure, usually the sulcus frontalis medialis (Eberstaller 44 per cent.). Confluence with the sulcus centralis, Giannelli (1907) seems to think very rare and reports one case. It is a little difficult to analyze accurately the literature on this subject, for some of the cases reported as interruption of the praecentral gyrus may belong in this class. Giacomini (1884) observed the praecentral convolution interrupted 23 times, Saporito (1898) 12 times, and Sergi once in a Javanese. Foville thinks that such interruption is an indication of inferiority but Giacomini is not in accord with this opinion.

The Sulcus Frontalis Medius: This sulcus was seen by Hervé, but named by Eberstaller, who considered it a very important sulcus. Cunningham found it very variable, consequently of no great morphological value. The work of Retzius agrees with Cunningham as to variability. He finds it entirely absent in 2 per cent. It is often represented by two or three segments, and the anterior segment or end is usually connected with the sulcus fronto-marginalis (Retzius 76 per cent.). It may be a part of this fissure complex (Cunningham).

The Sulcus Frontalis Inferior: This sulcus is made up of three elements (Eberstaller), and shows great variations of arrangement and connections. It is most frequently in two parts (Cunningham 66 per cent., Retzius 24 per cent.), and is in connection with the sulcus diagonalis in 47 per cent. of cases, according to Retzius. The sulcus diagonalis already referred to was first described by Eberstaller. It is generally present, and, aside from the variations of connections already referred to, it shows some variability of position and direction on the operculum.

The *Sulcus Fronto-Marginalis*: This sulcus has been known as the fronto-marginal sulcus of Wernicke. It is situated, as its name indicates, on the margin of the frontal lobe, and may be represented by one, two or three segments. The normal condition seems to be a division into two (Retzius 66 per cent.). Duckworth finds it is present and detached in the foetus in 78.6 per cent. Elliot Smith (1902) considers this sulcus as a part of the sulcus frontalis inferior. Duckworth (1907) considers the sulcus as two terminal portions and a stem; this he finds recognizable in 71.4 per cent. of Australians. He does not agree with Cunningham that the lateral branch is developmentally the older of the two terminal portions.

Sulci Orbitales: These sulci have been exhaustively studied by Eberstaller and a very complex classification suggested. I do not think that any morphological significance attaches to them, consequently the division into simple and complex arrangement will adequately express the condition.

The four-convolution type of the frontal lobe was first spoken of by Benedikt who saw in the condition a similarity to the arrangement in some of the lower mammals and concluded that the principle can be clearly established that delinquents constitute one variety, and a retrogressive variety, of the genus homo; for he did not believe that the condition obtained in the brains of non-criminals. He also found two cases among criminals, of a five-convolution type. Hanot agreed in general with the idea expressed by Benedikt. Later study has shown that Benedikt's idea was without proper foundation; for Giacomini found that the four-convolution type is present in 13.5 per cent. of normal brains, and Sernoff found it present in 14.5 per cent. of his series.

REGIO PARIETO-OCCIPITALIS.—LATERAL SURFACE

Sulcus interparietalis: (B.N.A.) The sulcus interparietalis has been studied by a great many observers, each using his own interpretation. Its morphological significance and normal arrangement are, possibly, still a matter of question. It was first named by Turner (1866). It is present in the sixth month of foetal life, and is common to both man and apes (Ecker). I will not

attempt to harmonize the various opinions as to which of its elements are represented in apes, although the question is of great interest. Cunningham (1890b) says, "I think the lower in the scale we descend the less the relative morphological importance of the fissure of Rolando as compared with the interparietal sulcus." We must consider under this name a number of elements which vary in the completeness of their development and their relation to each other. They are the *sulcus retrocentralis inferior*, the *sulcus retrocentralis superior* (between these the *sulcus retrocentralis intermedius*), the *sulcus interparietalis proprius*, and the *sulcus occipitalis transversus*. Cunningham considers that the elements sulcus retrocentralis, ramus horizontalis (s. interparietalis proprius) and ramus occipitalis (s. occipitalis transversus) represent the fissure as it is seen in apes. Eberstaller introduces another element, the sulcus subcentralis posterior (Marchand), which is present in most apes. Retzius does not agree with this idea, but considers this sulcus as belonging to the group of the operculum. Retzius (1896) introduces the element sulcus retrocentralis intermedius, and reports it present in 4 per cent. of his series of brains.

The greatest amount of study of variations of elements has been placed on the several combinations which they present. Their arrangement can be most graphically represented by the diagrams used by Retzius.

| | Type I. | Type II. | Type III. | Type IV. | Type V. | Type VI. | |
|----------------------------|--|---|---|---|---|---|-----|
| |  |  |  |  |  |  | |
| | <i>Type Per Cents.</i> | | | | | | |
| Observer. | | I. | II. | III. | IV. | V. | VI. |
| Retzius | | 55 | 11 | 17 | 4 | 9 | 4 |
| Cunningham | | 69 | 19 | 11 | 3 | 6.3 | |
| Cunningham (Negro) | | 37 | 25 | 25 | — | 12 | |
| Duckworth (Australian) ... | | — | 30 | 50 | — | — | |
| Duckworth (Embryo) | | 5.9 | 35.4 | 23.5 | — | 5.9 | 5.5 |
| Sernoff | | 44 | | 31 | | | |

For additional figures see table, page 28.

Occasionally the sulcus retrocentralis superior is in communication with the sulcus cinguli, and more often the inferior is connected with the fissura Sylvii; this latter confluence Retzius finds present in 40 per cent., Weinberg in 44 per cent. Communication between the elements of the sulcus retrocentralis and the sulcus centralis have already been spoken of. Weinberg (1905) saw the sulcus retrocentralis double in one case, and quotes Sernoff as finding absence of this sulcus in 25 per cent.; but undoubtedly in those cases belonging to Sernoff one or other of the elements were present.

The *Sulcus Occipitalis Transversus* (Ecker), ramus occipitalis (Cunningham), has been variously interpreted as to its homologue in apes and its relation to other fissure integers. Wilder (1885) concluded that "What is commonly understood as the transverse occipital of Ecker is not a fissure integer . . . the true parietal and superior occipital do not form parts of one fissure, and the latter is the principal and primary constituent." He (1896) in a study of fifty-three brains finds that the sulcus occipitalis transversus is separate from the sulcus interparietalis proprius in 13 per cent. Parker (1896) disagreed with Wilder, but considers the sulcus occ. transversus a part of the interparietal, influenced in its direction by the growth process. Spitzka (1901*b*) elaborated the theory of Parker, but attempted no proof except observations on adult brains. Smith (1904) considers it a part of the interparietal integer and says, "The incisura parieto-occipitalis seems to be the chief mechanical determining factor in the production of this in the human brain."

REGIO OCCIPITALIS

The greatest advance in the attempt to interpret the fissures of the cranium is undoubtedly the memoir of Smith (1904) on this region. Instead of attempting to homologize fissures by position when we have no constant landmark to reckon from, he makes a radical departure from old methods and studies the fissures in their relation to histological-physiological areas. Such a method is in keeping with other present neurological work, and as other regions become known physiologically, the whole cerebral mor-

phology will take on a significance which has been hoped for, but heretofore has not been realized.

This is not the place to consider the long dispute which has been carried on concerning this region in relation to the homologies between man and apes. Although the work of Smith (1904) is not accepted in all of its details by the various observers—(see Holl (1907), Zuckerkandl (1904-5-8-10) and Kohlbrügge (1903))—still the average hemisphere lends itself more readily to his description than to any other; consequently we will employ his nomenclature. I may also add that the B.N.A. is entirely inadequate for the description of this region in the light of our present knowledge.

Sulcus Lunatus: This sulcus which was named by Smith, and which he considered the homologue of Rüdinger's affenspalte, is the sulcus occipitalis lateralis of Eberstaller and the exoccipital sulcus of Spitzka (1902). After Cunningham (1892) proved that the sulcus transversus (Ecker) was not the human representative of the affenspalte of apes, he, with others, generally considered that the appearance of this ape fissure in the human brain was of rare occurrence. This led to the report of cases of its supposed presence on account of the general belief that such a condition indicated marked atavistic tendencies. A review of this literature was published by Pfister (1899).

It is now known that the sulcus lunatus is present in the great majority of human brains, either in the form of a lunate sulcus defining the 'striate area,' or in the form of the sulcus lateralis which is the lunate displaced (Mott, 1907). Every form of the affenspalte which is found in apes may also occur in the human brain. It is rarely symmetrical on the two sides, and shape and position may vary. The largest and most pithecoïd forms are generally found on the left side (Smith, 1904). Another variation is in the appearance of two segments representing the sulcus.

The *Sulcus Praelunatus*: This is found extending forward a variable distance from the sulcus lunatus, and when the latter is broken up it may be found confluent with either segment.

Sulcus Occipitalis Paramesialis: This sulcus may usually be found on the dorsal surface of the occipital region, running

parallel to the mesial border. Smith (1904*b*) is not sure that the fissure is the same as the sulcus saggitalis (Retzius), or the post-cuneal fissure (Wilder), but points out that both names are incorrect because of the usual position of the sulcus on the dorsal surface of the region.

The *Sulcus Occipitalis Inferior*: This sulcus is subject to great variations in position, shape and number of segments. It may be impossible to identify because of its fusion with the sulcus temporalis medius.

The *Sulcus Occipitalis Superior*: This sulcus is less constant than the inferior, Smith suggests, because it is being pushed onto the mesial surface. He says, "It often happens in the human brain that the homologue of the 'Y' shaped sulcus of apes retains the same position *relative to the whole striate area* as in apes, i. e., the 'Y' shaped caudal end is swept far onto the mesial surface."

LOBUS INSULARIS

While the insula was probably recognized by Vicq d'Ayzer and described by Reil (1804), it was not clearly presented till Holl (1908-9) and Sergi (1910) published their excellent memoirs. All authors are agreed in dividing the insula into two cortical areas by a principal sulcus, called the sulcus centralis insulae. Holl called these cortical areas, so divided, the anterior superficial and posterior deep portions of the insula. The anterior portion is on a plane with the orbital surface, and is bounded by the sulcus marginalis anterior, the homologue of which Marchand (1893) declared was the sulcus fronto-orbitalis of anthropoids. It is triangular in shape and is divided into gyri, typically three (Holl), more or less converging and having a common root. The sulci in this part are for the most part short and vary in number and orientation. Sergi calls them sulci breves insulae and has found them frequently arranged radiating from a common point in a fan formation (conformazione a ventaglio).

The posterior, or posterior inferior portion, forms a covered convolution situated in the floor of the Sylvian fossa, which begins below on the orbital surface, and extends postero-superiorly along the upper surface of the temporal lobe. It is sepa-

rated from the superior temporal gyrus by the sulcus marginalis inferior. The postero-inferior portion of the insula represents the gyrus longus of Henle, the gyrus postcentralis insulae one and two of Retzius, and the pars profunda of Marchand. This portion is normally divided into two gyri by a sulcus running parallel to the sulcus centralis insulae, called by Marchand sulcus longitudinalis. The boundary sulci of the insula were generally known as the sulcus circularis Reili. Schnopfhagen (1890) called attention to the incorrectness of this name, and Holl (1908*b*) went into the embryology of the subject very fully, and showed that the anterior insula was connected to the frontal lobe through the gyrus insulo-frontalis, to the temporal lobe through the gyrus insulo-temporalis, and His had already figured a gyrus insulo-parietalis in a 25 cm. embryo. He found that the gyrus insulo-temporalis persisted in the adult, and extended onto the temporal lobe as the gyrus temporalis magnus. Hence we should say that the boundaries of the insula are anteriorly the sulcus marginalis anterior, superiorly sulcus marginalis superior, and postero-inferiorly the sulcus marginalis posterior.

There has been a disagreement among anatomists as to the names and morphological significance of the sulci on the surface of the lobe. Marchand divided the insula into three portions, an anterior, a middle, and a posterior or deep portion. He believed that only that portion anterior to the praecentral gyrus was homologous to the anterior portion or anterior insula of apes. Retzius (1902*a*) called the sulcus bounding Marchand's anterior portion posteriorly, the sulcus praecentralis insulae, and the sulci preceding it the sulcus brevis anterior and superior. He named the sulcus of the posterior portion (sulcus longitudinalis insulae Marchand v.d.) the sulcus postcentralis insulae. Eberstaller designated the sulcus in front of the sulcus centralis as sulcus brevis, sulcus brevis accessorius (an inconstant sulcus) and sulcus praecentralis. Holl (1908*a*) proved that Marchand's anterior and middle portions should be considered together as the anterior portion of the insula. He (1909), by an extensive series of investigations, established the fact that the sulcus longitudinalis (Marchand) was the first to develop in the embryo and corresponded

to the principal sulcus of anthropoidae. He considered the sulcus centralis, which limits the posterior insula anteriorly, as a formation almost exclusively human. He saw two types of human development in the posterior insula, one belonging to low apes, and one to anthropoids. He attempted to interpret any fissure remnant according to these types as belonging to the central or longitudinal sulcus.

Sergi (1910) considers that Holl has carried the homology farther than the region in its simplicity warrants. The homology in the posterior insula is represented by the necessity of a longitudinal sulcatura, not by the specification of any sulcus segment. He agrees with Holl in dividing the insular cortex into two areas divided by the sulcus centralis insulae, and this agrees with the findings of Flechsig, Campell and others.

Sergi (1910) finds from a study of the more primitive races that the posterior portion of the insula is more stable than the anterior, although a unique type of sulcus arrangement does not exist for man. Generally two zones can be distinguished, though one or the other may be greatly displaced. Variations between the two insulae of a brain do not obey a common law, yet there generally exists a similarity in sulci segments and their connections. Sergi concludes that there are no determinable ethnological or sex distinctions in the insula.

Although we cannot establish a type of sulcus arrangement for man, we can recognize in a complex development two separate zones, one made up of five gyri and the other of two gyri. Variations in the anterior zone will depend on the lack of some one or more of the *sulci breves*. In the posterior zone variations will depend on the presence or absence of the segments making up the *sulcus centralis* and the *sulcus longitudinalis* and their anastomoses. Holl and Sergi have shown that either the sulcus centralis or longitudinalis may be absent in part or completely, and if one segment be present, it may be independent or in connection with the other sulcus. Also the sulci breves are not infrequently confluent with the sulcus centralis or its segments. In the light of these variations, Weinberg's (1906) report of an interruption of the sulcus centralis insulae loses its significance. Giacomini

(1890) thinks that the presence of less than five convolutions in the anterior zone indicates arrest of development. This is refuted by Chériè-Lignière (1911). Spitzka (1902*b*) expresses much the same idea as Giacomini when he says, "The insula is on the whole somewhat of an index of the degree of development of the cerebral surface, particularly of those parts which are in juxtaposition to it."

The question of the relative importance of the central and longitudinal furrows is answered by Holl in favor of the sulcus longitudinalis, because of the fact that the longitudinal fissure is embryologically and phylogenetically the primary one. Retzius by a statistical study found that the central sulcus was the principal fissure of the insula because of its fuller development and more constant appearance (97 per cent.). I think in the light of Sergi's work we may disregard the contention of both Retzius and Holl. The suggestion of Woldschmidt, Spitzka and others that the insula by its development may be an index of the elite mind has too little foundation to be considered more than a theory.

LOBUS TEMPORALIS.—LATERAL SURFACE

The lateral surface of the temporal lobe is made up of three gyri and two fissures, gyrus temporalis superior, gyrus temporalis medius, gyrus temporalis inferior, sulcus temporalis superior, and sulcus temporalis medius. The superior temporal gyrus has been thought in certain classes (criminals) to be incompletely developed, but after a study of these observations I am convinced that they are valueless, for they have no unit of comparison and no extensive study of the normal brain has been made.

Generally speaking, the fissures of this region are simple and their variations have not been shown to have a morphological significance. The connections established by the sulcus temporalis superior have been studied by recent observers, principally Duckworth (1907), who finds that anastomosis with the sulcus parietalis is an infrequent one, with the praelunate in about the same proportion (12 per cent.). Retzius (1896) mentions an occasional communication established with the sulcus temporalis medius through a small fissure integer which he terms the sulcus

temporalis transversus superior. There is also occasionally a communication between the sulcus temporalis superior and the fissura Sylvii which he figures but for which he has not given the per cent. He speaks of the division of the sulcus into two segments (29 per cent.). Duckworth finds the same condition in 31 per cent. for embryos.

The *Sulcus Temporalis Medius*: This sulcus has not received a careful study at the hands of observers. It is generally represented not by a single sulcus, but by two or three segments which may be an advance over the Simiidae. The sulcus temporalis will be discussed with the inferior surface.

REGIONES MEDIA ET INFERIOR

Lobus frontalis.

On the antero-inferior surface of this region are a group of three sulci which are very inconstant. The *sulcus rostralis* is most important in size and constancy; it may be represented by two or three small segments or it may be a single long fissure running parallel to the anterior portion of the sulcus cinguli. It may communicate with either of the other fissures of the group or with the sulcus cinguli. The *sulcus rostralis transversus* and *sulcus rostralis inferior* are small inconstant fissures represented, when present, by few segments and not infrequently establishing the connections just referred to.

The *Sulcus Cinguli*: This is the principal sulcus of the region. Eberstaller (1900) recognized three elements in its make up, viz., a pars anterior, a pars intermedia, and a pars posterior. The connections and development of these elements largely represent the variations found in this sulcus. Retzius (1896) found that the sulcus was in two parts in 44 per cent., and in three parts in 14 per cent. He noticed an additional variation which he termed a doubling of the pars anterior and which he said was of not infrequent occurrence. Weinberg (1905) found a continuous sulcus in 54 per cent., in three parts in 10 per cent., and pars anterior separate; the other two joined in 32 per cent.

Lobus Parietalis. (Praecuneus.)

The variations of fissure arrangement in this region are very

complex. Retzius has figured seventeen of the more common patterns found in the study of one hundred brains. He divides the fissures into two complexes designating the upper one as the *sulcus praecuneus* and the lower as the *sulcus subparietalis*. As indicated, each of these complexes may be made up of several segments which may arrange themselves in various positions and form various connections. A part of this group, probably the subparietalis, Duckworth calls *sulcus compensatorius*. Tenchini (1892) considers that a simple arrangement of sulci in the praecuneus indicates incomplete development, since in the early life of the embryo the surface is smooth and then becomes grooved by a simple sulcus, and since this condition is a characteristic of most apes including the anthropoidae. Anastomosis of the sulci of this region and the *sulcus cinguli* are noted by Retzius in 34 per cent., by Sernoff in 37 per cent., by Giacomini in 26 per cent., and by Weinberg in 52 per cent.

Lobus Occipitalis (Cuneus.)

Beginning with Gratiolet, there has been so much written on the fissures of this region that it is impracticable to attempt to trace the subject or present anything like an accurate or comprehensive account of the various views that have been held by investigators. Reference to the work of Cunningham (1892) will furnish a very complete account of the work preceding his and will also give an explanation of the variations he encountered explained on an embryological basis. We may for discussion consider the division which he used and build on it the later investigations. Cunningham considered two principal sulci, *fissura parieto-occipitalis* and *fissura calcarina*, each represented by segments separate or confluent, or recognizable by deep annectants.

Fissura Parieto-occipitalis: This fissure name must represent instead of a fissure a complex. On the dorso-mesial aspect of the hemisphere is a deep notch which is the *incisura parieto-occipitalis*, which in many cases is surrounded by a ring-like gyrus (Smith, 1904). Below this *incisura* on the mesial surface is a deep fissure, which contains on its walls and floor, or represents a number of sulci, that should be called the *fossa parieto-*

occipitalis (Smith). The group of fissures which make up this complex show great variation in arrangement and when partially or completely covered by opercula, as suggested, may be overlooked and thus form the fissura parieto-occipitalis of authors. Smith (1904) has found this group to be made up of the sulcus paracalcarinus, incisura parieto-occipitalis and sulcus limitans praecunei, and says that all may be represented. Zuckerkandl (1908) has made a very extensive study of this fissure complex; he finds that there are nine fissure combinations possible in the human brain, and that there are four elements in the complex, viz. sulcus gyri transitorii, sulcus parietalis superior, sulcus limitans praecunei, and sulcus parieto-occipitalis medialis. Both authors show the absolute untrustworthiness of the 'fissura parieto-occipitalis' as a landmark and consequently the worthlessness of measurements made from this point. They also show the great variation in size and shape of the cuneus.

Smith (1904c) bounds the lobulus parieto-occipitalis in man by the sulcus limitans praecunei and sulcus paracalcarinus. He thinks the latter the older and is also of the opinion that the lobulus is a primitive form of the fissure complex in the human brain. Zuckerkandl shows that the variability of the sulcus parieto-occipitalis makes the boundaries of the lobulus uncertain, and since the same condition of variability obtains for the lower primates, no homology can be established.

Ordinarily the fissura parieto-occipitalis is in communication with the fissura calcarina. Cunningham thinks that, except his type v., there is a deep annectant to mark the point of separation of one from the other fissure. When this bridging convolution reaches the surface, it is called the gyrus cunei (Cunningham). Its presence is reported by Retzius in 2.5 per cent., by Cunningham in 3.0 per cent., by Weinberg in 4 per cent., Giacomini in 1.8 per cent., Sergi (Herero) 7 per cent., Bonfigli in .1 per cent., and Benedikt (criminals) in 6 per cent.

Fissura Calcarina: Cunningham (1802) found that this fissure was made up of two principal segments. Retzius (1806) apparently did not agree with this division, for he considered it as one fissure. Smith (1904) re-emphasized the division made by Cun-

ningham and found farther that the fissure represented the anterior boundary of the area striata, and that the one or several retrocalcarine sulci were of very subsidiary importance. They were not definite furrows which could be definitely homologized with similarly named furrows of another brain but merely depressions in the mesial part of the area striata. These represent the so-called sulcus calcarinus of apes.

The fissura calcarina may occasionally be confluent with the fissura hippocampi, a connection which Mingazzini (1895) considered of great morphological importance. The condition is present in the foetus after the fifth month and is also present in Ovisti and Tamarin (Midas). Retzius does not note the confluence. Mingazzini has seen the condition twice in normal brains and once in a criminal. Sernoff has observed the condition three times. Chériè-Lignière (1911) reports the condition occurring on the right side in the brain of a pigmy woman; and Schwekendick and Benedikt have reported several cases among criminals. Other cases are recorded in the table on page 50.

The smaller furrows of the region are fully described by Smith and need not be referred to here except to say that they are generally present, situated at some distance from the fissura calcarina and running parallel to it; and he has designated them as the sulci limitans area striata superior and inferior.

Regio Inferior et Rhinencephalon.

The *Sulci Orbitales* have been very fully studied by Eberstaller (1884) and different patterns classified, but it seems that the simple classification of simple and complex will express adequately their arrangement since they present wide variations.

Smith (1904a) described the limbus paraorbitalis which was called by Spitzka (1903c) the paraorbital limbus and which was known to Giacomini, Retzius and Eberstaller. It is a rare formation (Eberstaller 1.5 per cent.).

Fissurae, Rhinica et Hippocampi: Symington (1901) considers that these fissures are fundamental in the early encephalon. The works of Broca, Retzius and Kohlbrügge have made the ele-

ments of these fissures so clear that there is no probability of confusing them with others. Communication may be established between the *fissura calcarina* and the *fissura hippocampi* in rare cases, as mentioned above. Connection between the *fissura rhinalis* and the collateral is frequent. Duckworth (1907) finds it present in 50 per cent. of Australian aborigines. He thinks a boldly curved *fissura rhinalis*, a condition found in the Simiidae, a distinctive mark of the lower type of human cerebrum.

Fissura Collateralis: Sergi (1911) has made a study of the fissure elements situated below the calcarine fissure and divides the area into three distinct zones, viz., anterior, intermediate and posterior. The intermediate is the most extensive and the anterior and posterior are very variable in orientation and extent. (This division agrees with the work of Brodmann.) He finds that the collateral fissure constantly shows a single fundamental element found behind the *fissura rhinica* and often some distance from it. Posteriorly it is often in confluence with elements of the lingual or sublingual region; at times it is confluent with the posterior extremity of the sulcus temporalis inferior, often with accessory sulci of the gyrus fusiformis (that is, elements representing the subcalcarine region [Sergi]), or the sulcus occipitalis inferior. Anteriorly the *fissura collateralis* may be joined by the sulcus temporalis inferior, and either of these fissures or their common stem anastomosed with elements represented in the anterior zone already referred to. The elements of the posterior zone vary in number and arrangement and may establish beside the communications already referred to, those with the calcarine fissure.

Sulcus Temporalis Inferior: This sulcus Sergi has also studied in its relation to the collateral. He finds them separated by the gyrus fusiformis with a possible confluence behind already referred to. Anteriorly, confluence may occur with the unstable elements *temporo-polari* (Sergi) of the region just discussed (regio temporo-occipitalis inferior [Sergi]). Sergi (1911) says of the anterior and posterior zones, the *temporo-polari segments* turn into the *temporo-polari region* which extends into the region of the temporal pole and meets caudally the temporal

campi in a sagittal direction. The *subcalarine segments* turn into the medial occipital area which surrounds the area striata of the calcarine and run down transversely into the basal occipital region to be continued in the lateral surface of the hemisphere. Instability of orientation and development of constituent segments of the sulci of these two areas is correlative to the phylogenetic history of the same. The temporo-polari area, a recent zone in front of the older temporal zones ought to develop between these and the residue of the large limbic convolutions in the anterior fundus of the fossa temporale of the skull. The sulci which run through it are among the last to appear in the region. What significance, if any, variations in these zones may have, is yet to be discovered.

§ VII. CRIMINAL VARIATIONS

The study of the literature on criminal brains is very interesting in its relation to the development of cerebral morphology. The early students of criminal brains interpreted the variations which they discovered as being, if not responsible for the criminal life, at least peculiar to criminals and consequently establishing a type. These claims lead to wide research in the field of normal brains, and so, gradually, the confusion of types and significance of variations is being cleared away.

Broca (1867) found in a criminal brain slight development of the frontal convolutions in comparison with those of the parieto-occipital region, and from this he concluded that there was defective organization and consequently lack of responsibility. About the same time Benedikt took up the study and from time to time published conclusions which, to say the least, were based on very slender evidence. For example, he said that 40 per cent. of robbers (of the cases he studied) had the cerebellum only partly covered by the occipital lobes. This was similar to the lower primates. He consequently concluded that the posterior occipital region was the seat of the moral sense, and absence or lack of development of this region in any brain would be very significant (Baer). Later (1879) he classified the various anomalies and established a criminal type, his conclusion being that "Die Ver-

brecher-Gehirne ziegen Abweichungen vom Normaltypus, und die Verbrecher sein als eine anthropologische Varietät ihres Geschlechtes oder wenigstens der Kulturrassen aufzufassen."

Giacomini (1883) studied 23 criminal brains; he did not find Benedikt's type of confluent fissures common among those and thought that at least among Italians no peculiar type characters existed, but that they presented the same variations and in the same percentage as other brains, and farther those variations found were in no way related to crime. Flesch (1885) agreed with Benedikt in so far that he found that criminal brains presented deviations from the normal, but thought that such variations did not belong entirely to the convolutions and no criminal type existed.

Bardeleben (1882) opposed the idea of anatomical determination of criminality on the ground that there was no established type for normal brains, hence no significance in convolution patterns. "Es giebt eben keinen ganz feststehenden Typus, kein Gehirn gleicht dem andern wie es überhaupt ja weder in menschlichen Körper noch sonst in Nature zwei vollständig gleiche Gebilde giebt." Schwedendick (1881) concluded, from a study of ten brains of criminals, that while there were irregularities of development there was no constant factor to indicate a type or indeed that they belonged to criminals; moreover he saw no factor that would warrant the assertion that there was reversion. He agreed with Pansch, Ferrier, Fallot, and Tenchini in concluding that Benedikt's statement that the criminal brain filled the gap between the human and carnivora brains was without foundation, and thought that Benedikt overlooked the facts of cerebral development in reaching his conclusions. Dr. Osler (1882) apparently based his opinion of criminal type of brains on the conclusions of Benedikt without either an independent investigation or reference to the literature of other investigators.

Waldeyer (1895), from a review of the work on criminal brains, considered the following characters significant: (1) frequent anastomosis of the fissures, (2) forking of the sulcus centralis; (3) surface annectants in the sulcus centralis; (4) absence of the central sulcus; (5) the four-convolution type of the frontal lobe;

(6) a long outer parieto-occipital fissure (Affenspalte); (7) the uncovered cerebellum. It does not seem to me that the literature warrants these conclusions, especially in regard to the sulcus centralis. Sernoff (1896) studied the first six characters and found that they occurred in the brains of non-criminals as frequently as they did in the brains of criminals. He believed that the morphology of the brain, as described in the text books, was entirely too diagrammatic to be relied on for accurate comparisons in an attempt to establish an abnormal condition. He made a comparative study of the brains of forty-two criminals and fifty normal brains. His conclusions were that Lombroso's mistake was that he extended the idea of degeneration too far, and made variations which have always been recognized as anomalies in true morphology, or as one may say, individual variations, appear to have a suggested influence on the function, when it is definitely known that they have no influence worthy of note on the function of the organ. Again he made a second error when he considered the appearance of the so-called atavism as a positive indication of lower organization. "Der Atavismus bezw., die atavistischen Anomalien der modernen Wissenschaft ist aber ein rein atomischer Begriff, die functionische Seite der Frage, die Frage noch dem etwaigen Einflusse atavistischer Erscheinung auf die Organverreichungen ist bis anhin nicht einmal berührt worden."

Mondio (1895) concludes that almost all cases show in the brain an arrest of development and agrees with the hypothesis of Debière, "I criminali, avere cioè, meno cervello dei non criminali," *i. e.*, criminals have less brain capacity than noncriminals. The inability of our knowledge to show, in the significant morphological characters of animals near to man, a clear agreement between the anatomical facts and the special characters of mind (*animo*), between the modifications of the cerebral surface and the development of the intellectual faculties, prevents us from establishing a criminal type, which we might be tempted to do from the variations which we see of kind and degree between criminal and noncriminal brains. But since from the very multiplicity of variations we may not establish the individuality which distinguishes them but only the differences, we can say with Tenchini

(1885), "Che le anomalie del cervello dei criminali si manifestano tanto frequenti e svariate in proporzione a quelle del cervello degli uomini dabbene che si potrebbe in questa, peculiare ricchezza diforme anatomiche, forse in questa stessa atipia, ammessa già come predisponente alle malattie, vedere il carattere ed insieme il fatto più interessante nello studio dei delinquenti," *i. e.*, the very multiplicity of anatomical forms and lack of symmetry may possibly furnish the most interesting character in the study of criminal brains.

Näcke (1903-10) has made extensive studies of criminal brains and has found in them many conditions and characters which would suggest that there is a departure from the normal, although it cannot be said that there is any uniformity of these variations interpretable as a tendency to type formation. He says: "Trotz des verschiedenen normalen, pathologischen und verbrecher Materials waren die Befunde der Normalen unter sich ähnliche, eben so die Verbrecherer, welche fast überall, wie auch Geistkranke höhere Protzentsätze an 'Anomalien' ziegen. Das ist sicher nicht der reine Zufall!"

While all investigations of the criminal brain show a larger percentage of variations than may be found in a similar number of normal brains, the individual variations are not peculiar to the delinquents, nor is any one of them common to criminals. Even with the present incomplete knowledge of the significance of variations, it may be positively stated that there is no criminal type, nor will it ever be possible to say from the macroscopic examination of a brain that it does or does not belong to a criminal. If we may interpret the scanty evidence so far presented, it would seem that the greater number of variations found in criminals and their more frequent tendency to repeat lower forms might indicate a more imperfect or unstable organization in these brains. But, as already remarked, the connection between structure of the brain surface and the psychic powers of the individual has not been established, and also our conclusions have been derived from the study of a small number of brains and cannot as yet be applied in an attempt to classify the individual specimen.

ANALYSIS BY COMPARISON OF VARIATIONS FOR VARIOUS GROUPS

The following table represents a study of the available reports of the brains of scholars, brains of criminals, and brains of the so-called lower races. I have included in it (see review below) only those reports that through figure and description are sufficiently detailed to allow me to determine the condition in the individual brain studied. It has seemed to me that by combining a number of nationalities it might be possible to eliminate the ethnological factor and we shall then be able to study the relation of the criminal brain to that of trained minds and to that also of a class of low mentality. The characters in the table have been selected because each has been suggested by some observer as either an indication of criminality or more frequently of a low organization or an undeveloped mind. In the list of criminals and lower races the sexes are sufficiently divided so that if this be considered ordinarily a factor of variation it may in these percentages be disregarded.

The group of "brains of scholars" is made up of cases reported by Retzius, Spitzka, Horsley, Sperino, Duval, Manouvrier, and Chudzinski. There are sixteen men and one woman of the following races—seven Americans, four Swedes, one Pole, one Englishman, one Italian and three Frenchmen. The group of criminals includes twenty reported by Benedikt, nine by Mondio, one by Papillaut, thirty-one by Mingazzini, one by Spitzka, nine by Flesch, one by Hotzen, one by Taylor, one by Dercum, thirty-two by Tenchini and forty-two by Sernoff, making one hundred and forty-eight. All do not appear in the percentage of any one character because different methods of study, followed by different observers, made it impossible to obtain all the data for each brain. I have accordingly included the number of hemispheres on which the per cent. was reckoned. The division by race is: natives of Austro-Hungary twenty, Russians forty-two, Italians seventy-three, French ten, and Americans three.

The group of "Lower Races" is made up of two Sudanese, one Tabora, fourteen Herero by Sergi; two Indians by Dunn and Fallot, four Eskimos by Hrdlicka and Spitzka, twenty-nine

COMPARATIVE TABLE OF VARIATIONS

| Character. | Brains of Scholars. | | Brains of Criminals. | | Brains of Inferior Races. | | Two Criminals Reported. ¹ | |
|---|---------------------|-------------|----------------------|-------------|---------------------------|-------------|--------------------------------------|-------------|
| | No. Hemispheres. | Percentage. | No. Hemispheres. | Percentage. | No. Hemispheres. | Percentage. | No. Hemispheres. | Percentage. |
| Fissura Sylvii confluent with sulcus praecentralis inferior. | 34 | 20.5 | 70 | 27 | 24 | 40 | | |
| Fissura Sylvii confluent with sulcus retrocentralis inferior. | 34 | 29.4 | 156 | 34 | 26 | 58 | 4 | 100 |
| Fissura Sylvii, anterior rami represented by by two limbs. | 32 | 65.6 | 58 | 53 | 48 | 50 | 4 | 75 |
| Fissura Sylvii, ramus ascendens posterior bifid. | 28 | 64.2 | 28 | 64 | 44 | 65 | 4 | 75 |
| Fissura Sylvii, ramus ascendens posterior in confluence. | 28 | 21.4 | 41 | 34 | 44 | 10 | 4 | 0 |
| Sulcus centralis confluent with fissura Sylvii. | 34 | 5.8 | 212 | 23 | 52 | 20 | 4 | 0 |
| Sulcus centralis confluent with sulcus praecentralis. | 34 | 11.6 | 149 | 42 | 52 | 48 | 4 | 0 |
| Sulcus centralis confluent with sulcus retrocentralis. | 34 | 26.4 | 88 | 32 | 52 | 32 | 4 | 0 |
| Sulcus praecentralis superior and sulcus praecentralis inferior confluent. | 34 | 23.5 | 191 | 33 | 22 | 28 | 4 | 75 |
| Sulcus frontalis superior confluent with sulcus praecentralis superior. | 34 | 67.7 | 66 | 76 | 48 | 88 | 4 | 50 |
| Sulcus frontalis superior presenting all segments in confluence. | 33 | 48.5 | 193 | 40 | 20 | 60 | 4 | 50 |
| Sulcus frontalis inferior in confluence with sulcus praecentralis inferior. | 30 | 70 | 128 | 80 | 48 | 67 | 4 | 25 |
| Gyrus frontalis superior divided by a sulcus frontalis mesialis. | — | — | 172 | 14 | 14 | 30 | 4 | 0 |
| Arrangement of segments retrocentralis and sulcus interparietalis. Type I. | 34 | 58.7 | 139 | 60 | 78 | 43 | 4 | 50 |
| Type II. | 34 | 32.3 | 139 | — | 78 | 2 | 4 | 0 |
| Type III. | 34 | 9.9 | 139 | 19 | 78 | 30 | 4 | 50(?) |
| Type IV. | 34 | — | 139 | — | 78 | — | 4 | — |
| Type V. | 34 | — | 139 | — | 78 | 16 | 4 | 50 |
| Sulcus interparietalis and sulcus transversus connected. | 34 | 23.5 | 61 | 60 | 32 | 30 | 4 | 50 |
| Sulcus interparietalis and sulcus temporalis superior confluent. | 34 | 29.4 | 60 | 50 | 44 | 30 | 4 | 50 |
| Fissura parieto-occipitalis and sulcus transversus confluent. | 34 | 29.4 | 78 | 32 | 50 | 33 | 4 | 50 |
| Sulcus cinguli, all segments connected. | 32 | 62.5 | 129 | 53 | 46 | 30 | 4 | 75 |
| Sulcus cinguli in two parts. | 32 | 37.5 | 129 | — | 46 | 26 | 4 | — |
| Sulcus cinguli in three parts. | 32 | — | 129 | 48 | 46 | 44 | 4 | 25 |
| Fissura calcarina confluent with fissura hippocampi. | 34 | 5.8 | 204 | 15 | 52 | 14 | 4 | 50 |
| Gyrus cunei on the surface. | 34 | 0 | 45 | 15 | 74 | 6 | 4 | 0 |

negroes by Parker, Waldeyer and Fallot; and five Australians by Marshall, Rolleston and Duckworth.

A comparison of the two brains here reported with the other figures of the table shows how futile it is to attempt to draw conclusions from an individual brain. No general conclusion can be drawn from comparison of the other per cents. because all character variations may not have the same value. But if we suppose, as has frequently been done, that each character has a significance, the table indicates that the *criminal brain* is not one of *irregular development* or *low order*. The table undoubtedly shows that confluence is not a character of any morphological significance. In a condition as unusual as the confluence of the fissura calcarina and the fissura hippocampi, the brains of scholars show superficial, or partial, connection of 14.7 per cent. in addition to the 5.8 per cent. of the table, making the variation for criminals without significance. An interesting difference may be noted between the elite brains and those of low races, but it is not at all improbable that this variation would disappear with a larger series in each case. A careful study of the brains of the so-called lower races reveals no physical condition which can be said to indicate a low mental power or inferiority to the cultured races.

§ VIII. DESCRIPTIONS OF TWO BRAINS OF CRIMINALS BELONGING TO THE ANATOMICAL DEPARTMENT, UNIVERSITY OF NEBRASKA

The two brains which are here presented are those of two bank robbers who made a forcible escape from the penitentiary where they were serving time. They shot and killed three prison officials, and when they were being pursued by the sheriff's posse, one was killed by the officers and the other shot himself to avoid surrender.

These brains should furnish good material for criminal study, for both men were strictly of the criminal class and had criminal records before they were committed for robbery. Both men

¹ While I have placed the two brains which are detailed in the next section of the paper here in the table, my purpose is simply to show the general arrangement of variations. I wish to insist that the number of hemispheres is too small to institute a comparison with other classes in the table.

were of Irish extraction, "Gray" being born in Ireland, while "Dowd's" parents came from Ireland. Neither had more than the rudiments of an education in the schools. Both men were of temperate habits.

Case No. I.—"Gray," aged 42; occupation, work with railroad construction gangs where he did blasting work; as a criminal, robbery of safes with the assistance of explosives; body, well developed; weight, 130; height, 5 ft. 5 in.; mind, alert; possessed force which made him a leader of his associates; death by rifle ball through neck and chest.

Case No. II.—"Dowd," aged 26; occupation, nothing constant, occasionally employed in livery stables or on farms; as a criminal, was associated with a gang which robbed safes in stores and small banks; body, splendidly developed; weight, 106; height, 5 ft. 11 in.; of gentle and polite demeanor, talked very little and was of slow thought; was not a character who ever took the initiative; death by suicide with a revolver.

DIMENSIONS OF BRAINS

Weight after hardening two weeks in 5 per cent. formaline, glycerine 10 per cent. in water and the membranes removed.

| | Case No. I. | Case No. II. |
|---|-------------|--------------|
| Total weight | 1362 grms. | 1377 |
| Weight of right hemisphere | 593 grms. | 588 |
| Weight of left hemisphere | 582 grms. | 612 |
| Weight of cerebellum, pons and medulla | 188 grms. | 177 |
| Sylvian angle (Cunningham's)— | | |
| Right hemisphere | 60° | 62° |
| Left hemisphere | 60° | 60° |
| Greatest length of hemispheres projected on median plane | 163 mm. | 152 mm. |
| Central angle (Cunningham's)—Right..... | 29° | 30° |
| Central angle (Cunningham's)—Left | 30° | 28° |
| Cerebral index | 81.4 | 94.1 |

CASE NO. I. *Detailed Description of the Cerebral Surface* *Left Hemisphere. Lateral surface; Fissura Sylvii*

The opercula bounding the fissura Sylvii are well developed, consequently the insula is covered. Both the ramus ascendens

and ramus horizontalis are present and widely separated; the latter has connected with it the sulcus diagonalis (Eberstaller), the connection being marked by a deep annectant gyrus. The ramus posterior terminates in one limb instead of branching and without any anastomosis. The very superficial furrow which occupies the position of the ramus posterior descendens is undoubtedly the representative of that furrow.

Sulcus centralis.—This sulcus is without interest. It is separated from the fissura Sylvii by a well developed gyrus, establishes no connections with the furrows on either side of it, and terminates by a sharp bend backward of its single limb well beyond the mesial border of the hemisphere. The gyri prae-centralis and retrocentralis are regular in contour and well developed.

Frontal Region

All of the convolutions of this region appear to be very fully developed and regular in arrangement; the three-convolution type is present.

Sulcus praecentralis inferior is parallel to the sulcus centralis. It is confluent below with the fissura Sylvii by a deep furrow; at about the point where the ramus horizontalis should be, there is a furrow thrown diagonally across the course of this sulcus praecentralis inferior which probably is the representative of that sulcus, although there is no deep annectant to confirm the opinion and the sulcus continues upward without interruption or change of depth into the sulcus praecentralis superior.

The *sulcus praecentralis superior* continues upward almost to the mesial border of the hemisphere. It sends a shallow branch back into the gyrus praecentralis, and anteriorly there is a shallow groove which communicates with the sulcus frontalis superior.

The *sulcus frontalis mesialis* is represented by four short separate segments that appear as simple indentations on the broad superior frontal convolution.

The *sulcus frontalis superior* is in the form of one continuous fissure which extends well over the frontal pole of the hemisphere. A bridging convolution, sunk just below the surface, divides it into two segments of which the posterior is the deeper and longer.

The *sulcus frontalis medius* is represented by two unimportant segments, the anterior one is connected superficially with the *sulcus frontalis superior*. The *sulcus frontalis inferior* is a simple deep sulcus independent of connections and without deep annectants. It is possible that at its anterior end one of the segments of the *sulcus fronto-marginalis* is represented; the other two segments of this sulcus are separate and above; one is connected with the middle frontal fissure.

Parieto-Occipital Region

The *sulcus retrocentralis inferior* and *sulcus retrocentralis superior* may, on account of their intimate connection, be considered as one sulcus. Below it is connected directly and deeply with the *fissura Sylvii*, and not through the *sulcus subcentralis posterior*, which is present immediately in front of this connection. The upper termination is some distance from the border of the hemisphere, consequently the superior is much less fully developed than the lower.

The *sulcus interparietalis* is made up of two segments; the anterior is connected with the *sulcus retrocentralis*, so conforming to type I (page 33 of the text). The posterior segment is connected with the *sulcus transversus*. This is a conventional arrangement except for the fact that both the parietal and occipital rami are well developed and extend past each other, the occipital being superiorly placed. A deep *sulcus interparietalis lateralis* descends to clearly bound the *gyrus marginalis*. *Sulcus transversus* runs inward almost to the mesial border and outward without a confluence. The *sulcus temporalis superior* is very tortuous. It encroaches so much on the superior temporal gyrus that the latter has the appearance of inferior development. It has seemed to me that the sulcus is made up of three segments, the anterior and middle joined superficially and confluent posteriorly with the *sulcus occipitalis lateralis* while the third segment, the *ramus ascendens*, stands independently. *Sulcus temporalis medius* is represented by three irregular segments, the posterior connected with the *sulcus occipitalis inferior*, which is well defined.

Mesial and Inferior Surface

The *sulci orbitales* are extremely simple in their arrangement. *Sulcus cinguli* is represented by one continuous sulcus which has several deep lateral branches. At the anterior end the frontal surface is quite complex in its arrangement, for there are present *sulcus rostralis*, *subrostralis*, *transversus*, and accessory anterior ramus, in addition to the ramus anterior *sulcus cinguli*.

The sulci of the praecuneus are very simple: the *sulcus praecuneus* is represented by a single fissure. The *sulcus subparietalis* is arranged in the form of an "H" and is without outside connections. The *fissura parieto-occipitalis* is one of the deepest fissures of the hemisphere, and communicates directly with the *fissura calcarina*, that is, there is no evidence of an earlier gyrus cuneo-lingualis; it is not possible to make out an *incisura parieto-occipitalis* and there is clear evidence of the constituent sulci of the fossa.

The *fissura calcarina* is represented by a continuous fissure which can readily be seen to be made up of the *sulcus retrocalcarinus*, which does not terminate in a bifurcation just beyond the occipital pole, and the *sulcus calcarinus*, which terminates normally seven millimeters from the *fissura hippocampi*. The *sulcus limitans arae striatae inferior* and *superior* are both well developed, the former is confluent with the subcalcarine sulci (Sergi), and through them with the *fissura collateralis*. The *fissura collateralis* forms a continuous and simple fissure and is separated a short distance from the *sulcus rhinencephali inferior*. The gyrus fusiformis is extensive and irregular in outline. It is limited laterally by two short irregularly placed segments, the representatives of the *sulcus temporalis inferior*. The insula presents no points out of normal, it shows on its surface three *sulci breves*, a *sulcus centralis* and *sulcus longitudinalis*.

Right Hemisphere. Lateral Surface

Fissura Sylvii: This fissure presents much the same appearance as the opposite side; it is slightly shorter and the *rami ascendens anterior* and *horizontalis* are nearer together. The

sulcus diagonalis is not connected with the latter. The ramus posterior ascendens is without anastomoses and terminates by bifurcation. The *sulcus ventralis* is symmetrical with the left; a superficial furrow connects it with the sulcus retrocentralis inferior. Confluence with the fissura Sylvii through the *sulcus subcentralis anterior* which is well developed, is prevented by a narrow bridging convolution.

Frontal Region

This region shows the same high development of the convolutions as found on the left side.

The *sulcus praecentralis inferior* begins 11 mm. above the fissura Sylvii and extends upward for the normal distance where it becomes continuous without interruption with the sulcus praecentralis superior. No ramus horizontalis can be discovered.

The *sulcus praecentralis superior* is more nearly parallel to the central fissure than the inferior praecentral sulcus: it terminates well on the supero-lateral surface of the hemisphere, or almost immediately after its junction with the sulcus frontalis superior. The superior frontal gyrus, as on the left, is well developed, and presents several short furrows on its surface, which are the representatives of the *sulcus frontalis mesialis*.

The *sulcus frontalis superior* appears as a deep posterior segment which is connected with the sulcus praecentralis superior, and an independent less important anterior ramus. *Sulcus frontalis medius* is an unimportant short segment connected with the posterior ramus of the sulcus frontalis superior.

Sulcus frontalis inferior is very symmetrical with the left in position and shape. It however has more connections, in addition to the anastomosis, with the fissura Sylvii through the sulcus diagonalis. It anastomoses at its anterior end with the *sulcus radiatus* (Eberstaller), which is well developed, and with a segment of sulcus fronto-marginalis. There is, beside the short inferior segment in connection with the inferior frontal fissure, a larger segment more superiorly placed along the frontal margin: these two segments are the representatives of the sulcus fronto-marginalis.

Parieto-Occipital Region

The *sulcus interparietalis* complex, as on the left side, may be represented by type I of the text (page 33); the similarity is more however than a junction of the three principal fissures. The anterior and posterior rami of the *sulcus interparietalis* are separated, as on the left, the *sulcus lateralis* is present but on this side is in anastomosis with the *ramus ascendens sulcus temporalis superior*. A secondary superior parietal fissure joins the posterior end of the proximal segment of the *sulcus interparietalis*, giving it the appearance of extending to the mesial border. The posterior ramus and *sulcus occipitalis transversus* are like the left side. The complexity of the remaining fissures of the occipital region makes interpretation difficult. There is no typical representative of the *sulcus lunatus*. The *sulcus occipitalis inferior* is present and well developed.

The *sulcus temporalis superior* is somewhat more regular than the left. It forms a continuous fissure and is confluent with the anterior portion of the interparietal fissure, and also superficially with the fissures of the lower occipital region. The *gyrus temporalis superior* is better developed than the one on the left, but at the expense of the remainder of the lobe; for the two temporal lobes are very similar in shape and size.

The *sulcus temporalis medius* is represented by two nearly connected segments which run in a direction almost parallel to the superior fissure and so the lobe has the appearance of a much simpler arrangement and better development than the other side.

Mesial and Inferior Surfaces

The mesial surface of the right hemisphere is not as simply arranged as on the left side. The *sulcus rostralis* is deep and well developed. It communicates through the *sulcus transversus* with the anterior part of the *sulcus cinguli*. The *sulcus cinguli* is represented by three separate segments. The sulci of the *prae-cuneus* are of the same pattern as on the opposite side except for the fact that they present confluence. The *sulci subparietales* are confluent with the *pars posterior sulcus cinguli*, and the *sulcus*

præcuneus is in communication through a horizontal branch with the fossa parieto-occipitalis.

The *cuneus* is larger on this side than on the left and the description of the fissures on the left will answer for this side except that there is not such a deep communication between the subcalcarine group and the fissura calcarina, and the sulcus retrocalcarinus is more distinctly branched at its posterior extremity and extends farther over the border of the occipital pole; also the proximal end has a very superficial connection with the fissura Hippocampi. The *sulci orbitales* are simpler even than on the left and roughly resemble an "H" in form. The *sulcus rhinencephali inferior* is long and deep, the *fissura collateralis* and *sulcus temporalis inferior* are each represented by a single segment, and neither is connected anteriorly; the latter is connected posteriorly with the sulcus occipitalis inferior.

The *subcalcarine group* (Sergi) are simple in pattern and present one branch of interest; this sulcus is almost as deep as the fissura collateralis and runs forward parallel to it on the gyrus fusiformis as far as the middle of the gyrus. There may be a question as to whether this is not a posterior ramus of the collateral, but I have decided to the contrary because of its depth and the position of its fellow on the other side.

For reasons already given in the text I have not included any of the relative measurements of depth of sulci or linear dimensions, but, after having studied these and characters already mentioned, I can say positively that this brain presents no features, which present methods of study can reveal, that would cause us to classify it otherwise than as a brain of normal development. I regret to say that it reveals nothing which might explain the criminal tendencies of the individual either in atavistic reminiscence of structure, embryonal characters denoting arrest of development, or signs of a recent or early pathological process.

CASE II. *Left Hemisphere: Lateral Surface*

Fissura Sylvii.—The dorsal operculum is of only moderate development, resulting in a slight exposure of the surface of the

insula. This is not the result of hardening, for the condition was noticed when the brain was first removed.

The anterior and horizontal rami of the fissura Sylvii are well separated and cut the dorsal operculum deeply. The ramus ascendens posterior is characterized by its extreme brevity. It terminates by bifurcation. There is no distinct ramus posterior descendens.

Sulcus centralis is separated from the fissura Sylvii by a broad gyrus, it terminates superiorly at the mesial border of the hemisphere; there are no anastomoses established with other fissures although the anterior and posterior central gyri are cut deeply by short fissures from both the central and prae- and retro-central sulci. Submerged interlocking gyri mark the junction of the middle and upper thirds of the fissure.

Frontal Region

The development of the convolutions of this region, as noted above for the dorsal operculum, is not of high order.

The *sulcus praecentralis inferior* is short and presents very complicated connections; it is confluent below with the fissura Sylvii through the sulcus diagonalis. The sulcus terminates in the ramus horizontalis and through this ramus communication is established with the sulcus praecentralis superior. *Sulcus praecentralis superior* is almost divided into two segments by an annectant, it terminates some distance from the mesial border and in this space is a well developed sulcus praecentralis marginalis.

The gyrus frontalis superior is indented by four short furrows which represent the *sulcus frontalis mesialis*. *Sulcus frontalis superior* is a continuous very tortuous sulcus which reaches nearly to the frontal extremity of the hemisphere. It is confluent with the sulcus praecentralis superior and with a segment of the sulcus fronto-marginalis. If the *sulcus frontalis medialis* is present, it is only as a short segment connected with the superior frontal, or as a part of the complex connected with the inferior praecentral. The *sulcus frontalis inferior* is without connections and an annectant just below the surface divides it into two almost equal segments. The sulcus radiatus (E) is just below and parallel to it.

The *sulcus fronto-marginalis* is present as three separate segments, the inferior one being superficially connected to the Sylvian fossa.

The Parieto-Occipital Region

This region also gives the appearance of poor development, the convolutions are flat and the fissures narrow, although of normal depth. The surface seems to be relatively less than that of the frontal region due to the shape of the brain. That can be best understood from the cut of the dorsal surface.

The *interparietal complex* in superficial arrangement is like type I of the text; but due to an annectant which almost separates the inferior and superior retrocentral fissures, and due to the fact that an antero-descending branch of the interparietal is really the continuation of that sulcus, the arrangement really falls in type V, a much rarer condition. The sulcus retrocentralis inferior is directly confluent with the fissura Sylvii. Just in front of it is a sulcus running parallel to it and also communicating with the fissura Sylvii. This fissure is divided into two parts by a deep annectant, and probably represents a sulcus subcentralis posterior joined to one of the accessory furrows which are occasionally encountered on the retrocentral gyrus rather than a secondary inferior retrocentral sulcus.

The *sulcus interparietalis* is present as a continuous sulcus connected to the sulcus occipitalis transversus. It is confluent through a lateral branch with the superior temporal and directly with the sulcus parietalis. The *sulcus transversus* presents no points of interest except a confluence with the sulcus temporalis superior and the incisura parieto-occipitalis. The *sulcus occipitalis inferior* is well developed and confluent with the sulcus temporalis medius. The *sulcus occipitalis superior* is present as a short segment which is connected with one of the two segments of a sulcus lunatus. The *sulcus temporalis superior* is very irregular in its development, it may be described as four segments. The *ramus anterior* is independent of the rest of the sulcus but cuts deeply through the superior temporal gyrus to connect with the fissura Sylvii. The *ramus medius* is the most important portion of the fissure. It begins well down on the temporal pole and passing up

and back divides about the middle of the lobe into two branches. The shallower of the two continues in the direction established by the fissure and terminates in the fissura Sylvii. The other branch, which is the real continuation of the segment, turns backward and continues in an uninterrupted course to the occipital pole. At the point where the ramus ascendens is ordinarily given off, a shallow furrow connects it with two ascending rami, which pass up and back, one parallel to the retrocentral fissure to end in the interparietal, the other somewhat more horizontally backward to become confluent with the fissures of the occipital region. I have frequently encountered this fissure pattern in negro brains. Schuster has figured a similar condition for a Chinese brain.

The *sulcus temporalis medius* is very tortuous and branched, cutting the middle temporal gyrus up into many secondary folds, but it does not form any connections except with the inferior occipital sulcus already referred to.

Mesial and Inferior Surfaces

The mesial surface gives the appearance of being very complexly convoluted due to the many branches of the fissures. The *sulcus rostralis* is deep and well developed, at its inferior extremity it is confluent with the sulcus cinguli by a short transverse furrow. The *sulcus cinguli* is made up of three parts superficially confluent. Many branching fissures cut the marginal gyrus into complex folds. Behind it is confluent with the subparietal complex. The praecuneus presents a simpler arrangement than the preceding area. The *sulcus praecuneus* is a single fissure with a branching posterior extremity. The sulcus subparietalis is arranged roughly in an "H" form with all segments connected.

The cuneus is small and simply furrowed. There is an *incisura parieto-occipitalis* present, and the *fissura parieto-occipitalis* begins as a single furrow at the border of the hemisphere and, rapidly deepening, extends downward without interruption into the fissura calcarina, and indeed the anterior portion of the latter fissure seems to be the continuation of the parieto-occipital. The *fissura calcarina* seems to be a continuous fissure, but is divided, by a bridging convolution reaching almost to the surface, into a

retro-calcarine and calcarine fissures. The fissure terminates posteriorly at the occipital pole in two widely branching sulci. Anteriorly the *fissura calcarina* terminates in the *fissura hippocampi*. This connection is not a superficial one, but the *fissura calcarina* continues at almost its maximum depth into the *fissura hippocampi*. Both the superior and inferior limiting sulci are well developed. The *subcalcarine group* (Sergi) is very complex. The *fissura collateralis* is simple and extends well forward. It communicates with the *sulcus temporalis inferior*. The *sulcus temporalis inferior* is well defined, but in addition to the confluence just mentioned is connected with the middle temporal sulcus.

Right Hemisphere: Lateral Surface

Fissura Sylvii presents one anterior ramus which cuts deeply into the dorsal operculum, but, due to the development of the operculum below, the insula is not exposed. It branches at its upper end into two short sulci. The *ramus posterior ascendens* is slightly longer than the left and ends by bifurcation. The *ramus posterior descendens* is not represented.

The *sulcus centralis* is symmetrical with the left. The *præcentral gyrus* is cut by two furrows instead of one as on the left. The mesial furrow seems to be the posterior segment of the *sulcus frontalis medialis*, and the lateral one is clearly the continuation of the *sulcus frontalis superior*. Neither furrow cuts deeply into the *sulcus centralis*. The *sulcus præcentralis* appears on the surface to be a continuous fissure beginning in the *fissura Sylvii* and extending to the mesial border of the hemisphere. But on separating the lips of the sulcus it is seen to be made up of a *sulcus præcentralis superior* and a *sulcus præcentralis inferior* by a bridging convolution which almost reaches the surface. Just below the annectant is a horizontally directed branch, which is the *ramus horizontalis*.

The *sulcus frontalis superior* is a long fissure uninterrupted by annectants. It has no true connections although it is superficially connected with the *sulcus præcentralis superior* and the *sulcus medius*. The *sulcus frontalis medius* is represented by two segments connected superficially.

The *sulcus frontalis inferior* is in the form of an inverted "T." It is superficially confluent with the middle, frontal and inferior praecentral sulci. Aside from a few superficial variations there is a remarkable similarity of fissure arrangement of the right and left frontal regions.

The *interparietal fissure complex* is somewhat more simple than the left. The retrocentral sulci are interrupted by annectants above and below that assist us in interpreting the condition. The inferior indicates that the confluence of the retrocentralis inferior with the fissura Sylvii is through the sulcus subcentralis posterior, while the upper annectant represents the point of division between the sulci retrocentrales inferior and superior. A connection is present between the sulcus retrocentralis inferior and the sulcus interparietalis. But from its direction and depth it may be taken as a superior branch of the latter sulcus or possibly as a continuation of the anterior ramus of the ascending portion of the superior temporal sulcus. In either way we can consider that the sulcus interparietalis is separated from the other sulci of the group forming, as on the left, an example of type V. The *sulcus interparietalis* is divided by an annectant into two segments, the posterior being connected with the sulcus occipitalis transversus, which is simple, as on the left.

At the posterior occipital region the arrangement is very complex, and it is difficult to identify the various fissures which are undoubtedly present. The inferior occipital fissure is well developed, and the lunate fissure is present but not in typical form. The remaining furrows I will not attempt to identify; for they are not important being only from three to six millimeters deep.

The *sulcus temporalis superior* is made up of two parts, the ramus anterior and ramus ascendens which are entirely separated (this interpretation is based on the condition present on the left side), there are no branches cutting into the fissura Sylvii and the gyrus temporalis superior is narrow and poorly developed.

The *sulcus temporalis medius* is branched, as on the left, giving to the middle temporal convolution a very broken surface.

Mesial and Inferior Surfaces

The mesial surface is much simpler than the opposite side. The *sulcus rostralis* is represented by a single furrow near the inferior margin of the frontal lobe.

The *sulcus cinguli* is a continuous sulcus, not so tortuous and branched as on the left, a completely developed accessory pars anterior is present on the callosal gyrus.

The pattern of the fissures of the praecuneus are similar to that of the opposite side.

The cuneus is slightly larger than on the left and the arrangement of sulci is the same except that here there is a more distinct incisura parieto-occipitalis and the gyrus cuneo-lingualis is better developed although submerged. We find, as on the other side, a communication between the *fissura calcarina* and the *fissura hippocampi*.

The *subcalcarine* group of sulci are complex and are confluent with the *fissura collateralis*. The *fissura collateralis* is represented by two segments, the anterior connected with the segment of the tempero-polare (Sergi) region.

The *sulcus temporalis inferior* is represented by two segments, it is confluent with the *fissura collateralis*.

The *sulci orbitales* are arranged in an "H" form, they cannot be compared with the opposite side for there the cortex was destroyed by the bullet.

It is impossible to give a description of the insulae because they are so broken up by the bullet wound.

It is very clear that this brain differs in many particulars from that of Case I. The fissures have a greater tendency to run into each other and present a great many more secondary branches, all of which makes the surface much more complex in appearance. At one time this richness of furrows would have been interpreted as an indication of high mental ability. The flat surface of the convolutions gives the appearance of inferiority in development, but the fissures average as deep as those in Case I. The unusual confluence of the *fissura calcarina* and the *fissura hippocampi* can have little significance, for the same variation appears partially or completely in over 20 per cent. of the brains

of eminent men so far studied. There is in this brain neither suggestion of "atavistic reminiscence," incomplete development, nor pathological process, to account for the criminal tendency which the individual manifested.

CONCLUSIONS

It seems to me satisfactorily proven that, with our present methods of study and our indifferent knowledge of the relation of nervous structure to function, we cannot differentiate for race, sex or intelligence.

The study of the microcephalic brain has failed to yield data throwing light on either the question of homologies in fissure patterns between man and the apes or the question of the relation of structure to function. Until our understanding of what factors are operative in producing these cases is much more complete, it will not be profitable to use them in attempted elucidation of morphological problems.

The studies on elite brains have furnished no positive proof that function is related to the surface area or conformation, and care must be exercised in attributing to this class characters which seem to have a special significance for it, till the character has been studied or sought in other classes and identified in a large number of elite brains. The claim has frequently been made that the criminal brain shows anomalies and variations indicative of arrest of development or "atavistic reminiscence" more frequently than the non-criminal brain. I cannot, after a careful review of the available reports of criminal brains (see table, page 50), agree with this statement. I can find no indication that the criminal brain possesses physical characters which can be particularized as stigmata of inferiority. No satisfactory evidence has been presented on which to base the conclusion that the criminal brain as a whole is of low order or incomplete development.

A normal type does not exist and, consequently, a criminal type is impossible. But we may go farther and say that *not a single character reported from the brain of a criminal has been shown to have the remotest relation to his acts or habits of mind*. In the light of our present knowledge of variations, we must conclude

that the two cases here presented, while representing two widely different types, are both free from evidences of inferiority and degeneration.

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EXPLANATION OF PLATES.

These figures are semidiagrammatic in that they represent the actual conditions of the brains rather than the way they appear. Photographs were made of the brains and tracings made on these as the brains were studied; finally drawings were made from the brains and corrected from the re-traced photographs. I am indebted to Miss Warner, the department artist, for the excellence of the final results.

Figures 1 to 6 belong to Case I. and figures 7 to 12 to Case II. On account of the full description in the text and the similarity of the hemispheres on the two sides I have not considered it necessary to employ identification marks for all of the figures.

ABBREVIATIONS USED IN FIGURES

| | |
|--|--|
| <i>Lateral Surface</i> | |
| Fissura Sylvii—main stem, <i>fsy</i> . | Sulcus interparietalis, lateral branches, <i>ipl</i> . |
| Fissura Sylvii—ramus posterior ascendens, <i>rpa</i> . | Sulcus occipitalis transversus, <i>tr</i> . |
| Fissura Sylvii—ramus posterior descendens, <i>rdp</i> . | Sulcus occipitalis lateralis, <i>lun</i> . |
| Fissura Sylvii—ramus anterior ascendens, <i>ra</i> . | Sulcus occipitalis superior, <i>occ. sup</i> . |
| Fissura Sylvii—ramus anterior horizontalis, <i>rh</i> . | Sulcus occipitalis inferior, <i>occ. inf</i> . |
| Sulcus centralis, <i>c</i> . | Sulcus temporalis superior, <i>ts</i> . |
| Sulcus praecentralis superior, <i>prs</i> . | Sulcus temporalis medius, <i>tm</i> . |
| Sulcus praecentralis inferior, <i>pri</i> . | Sulcus temporalis transversus, <i>tt</i> . |
| Sulcus praecentralis inferior—ramus horizontalis, <i>h</i> . | |
| Sulcus frontalis superior, <i>fs</i> . | <i>Mesial and Inferior Surfaces</i> |
| Sulcus frontalis medius, <i>fm</i> . | Sulcus rostralis, <i>ro</i> . |
| Sulcus frontalis inferior, <i>fi</i> . | Sulcus cinguli, <i>sc</i> . |
| Sulcus frontomarginalis, <i>fma</i> . | Sulcus praecuneus, <i>pc</i> . |
| Sulcus radiatus, <i>r</i> . | Sulcus subparietalis, <i>sp</i> . |
| Sulcus diagonalis, <i>d</i> . | Incisura parieto-occipitalis, <i>ipo</i> . |
| Sulcus subcentralis anterior, <i>sca</i> . | Fissura parieto-occipitalis, <i>fpo</i> . |
| Sulcus subcentralis posterior, <i>scp</i> . | Fissura calcarina, <i>cal</i> . |
| Sulcus retrocentralis superior, <i>ros</i> . | Sulcus retrocalcarinus, <i>rca</i> . |
| Sulcus retrocentralis inferior, <i>roi</i> . | Sulci subcalcarini, <i>subc</i> . |
| Sulcus interparietalis, <i>ip</i> . | Sulcus temporalis inferior, <i>ti</i> . |
| | Fissura hippocampi, <i>fh</i> . |
| | Fissura collateralis, <i>co</i> . |
| | Sulcus rhinalis inferior, <i>sri</i> . |
| | Sulci orbitales, <i>or</i> . |
| | Sulcus olfactorius, <i>o</i> . |

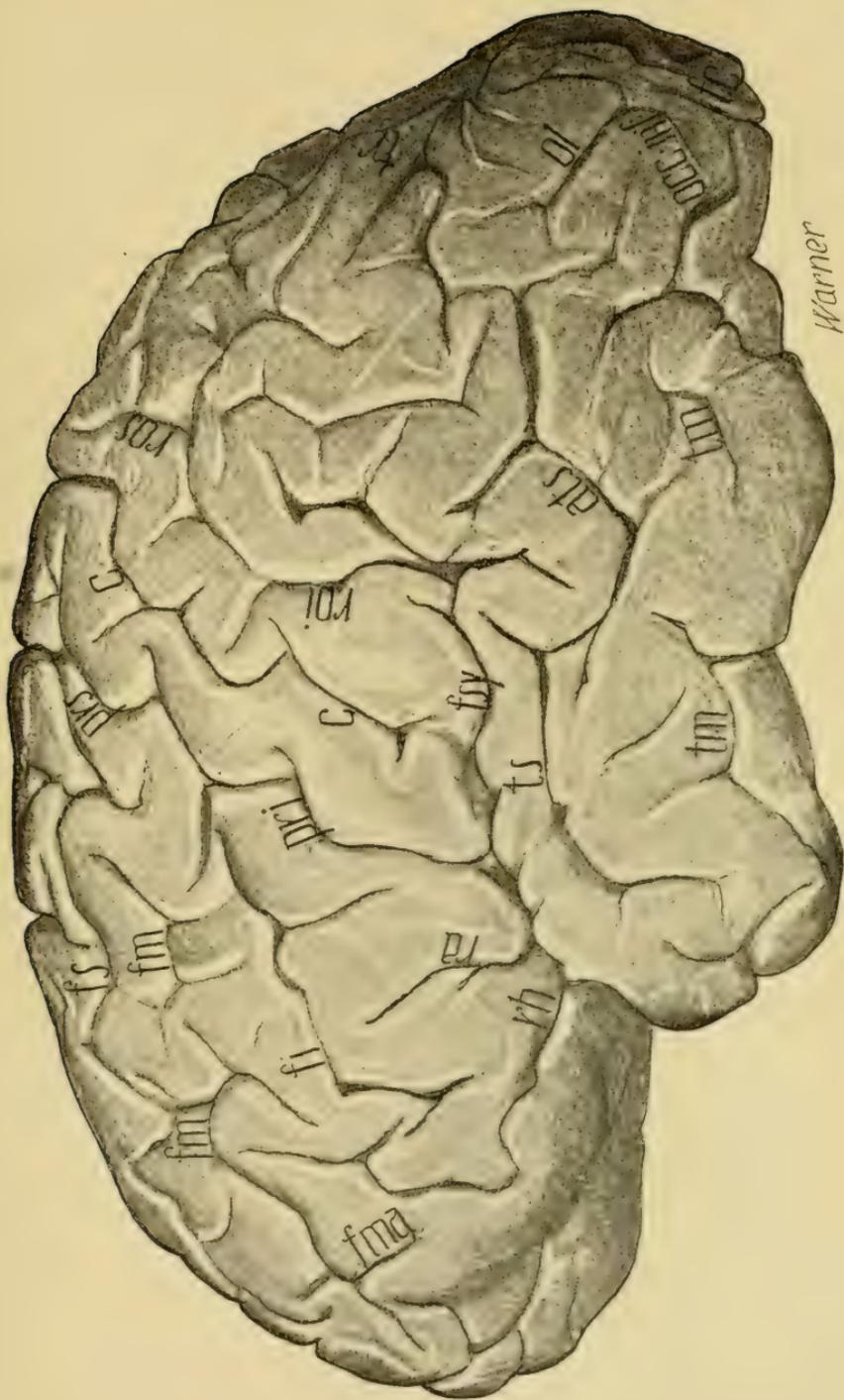


PLATE I

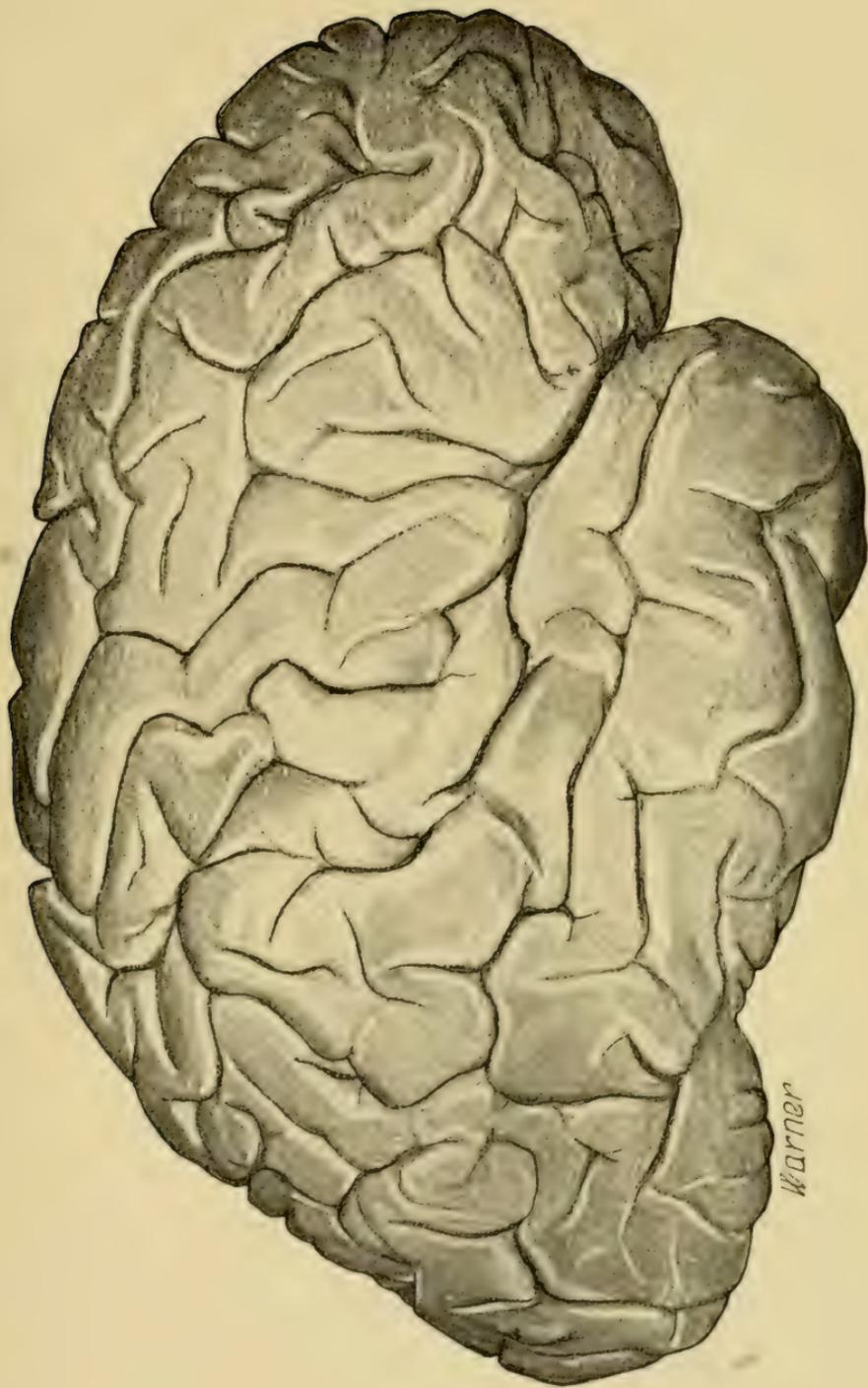
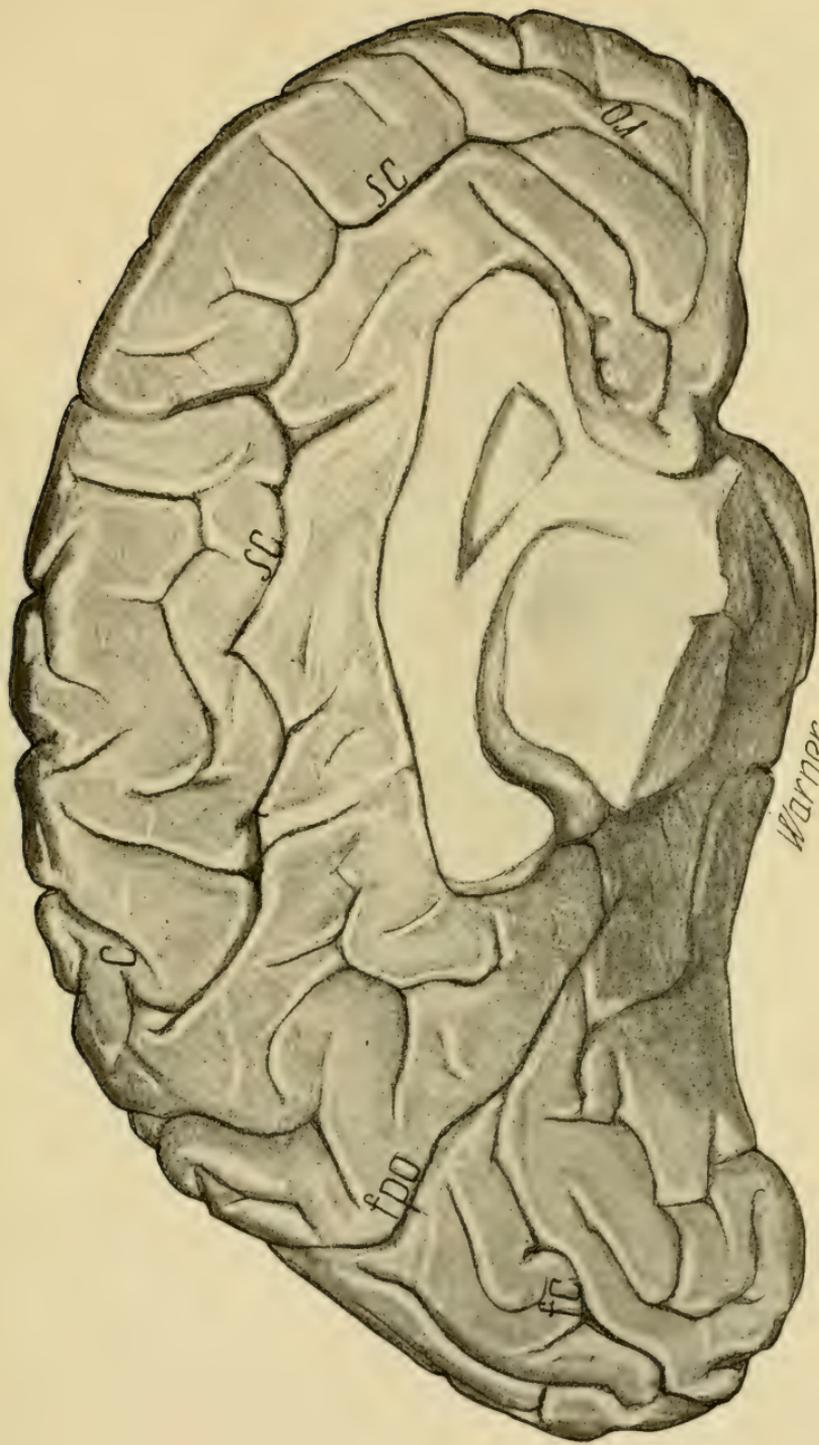


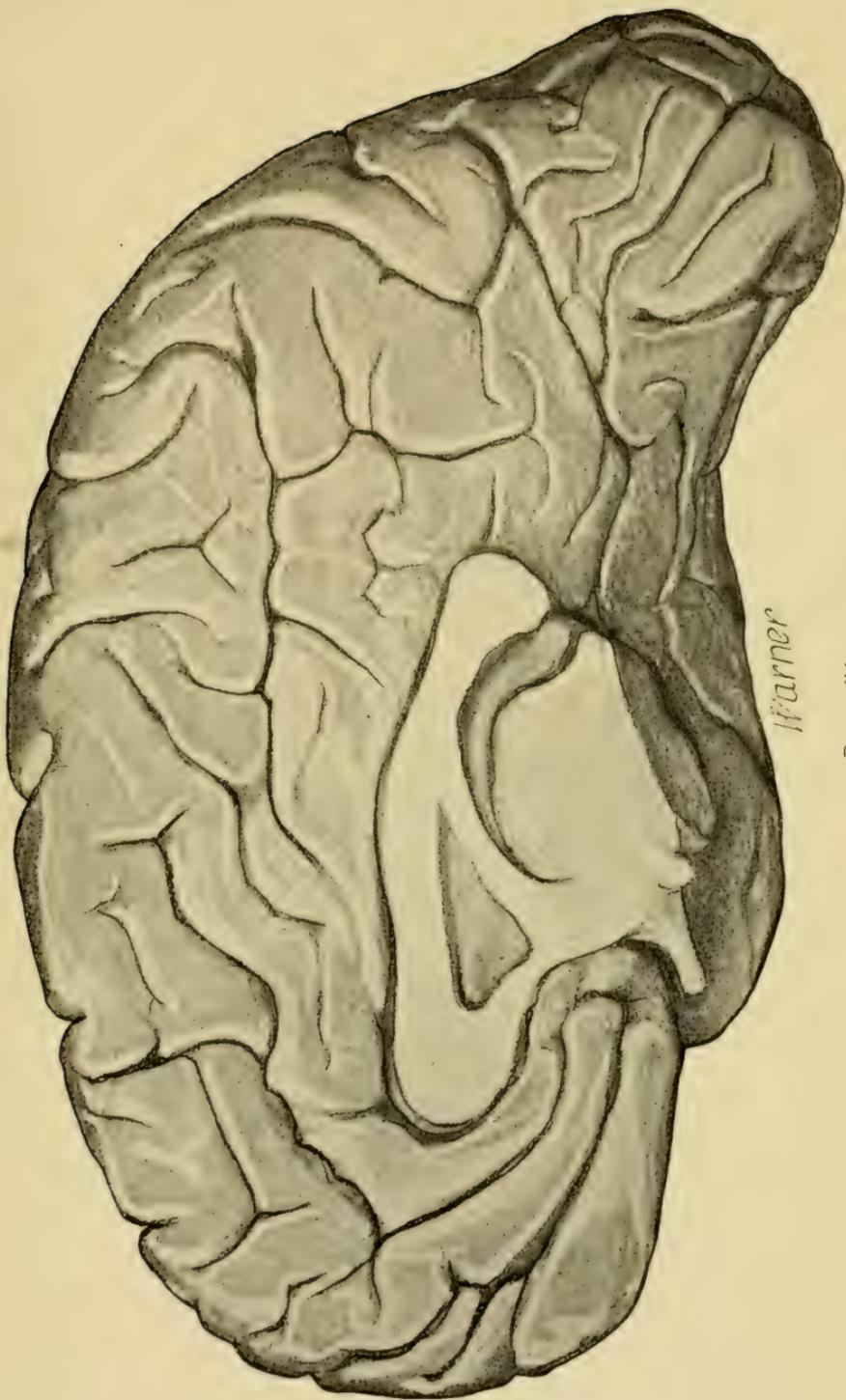
PLATE II

Warner



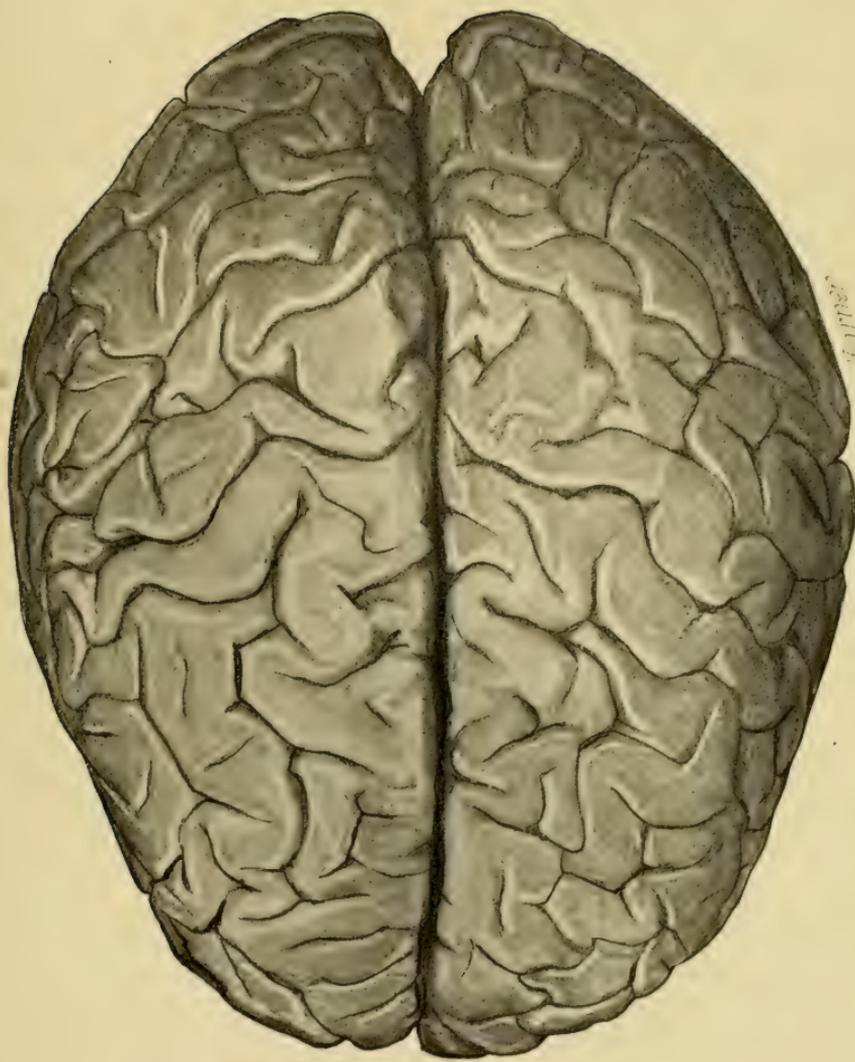
Warner

PLATE III



Warner

PLATE IV



H. Turner

PLATE V

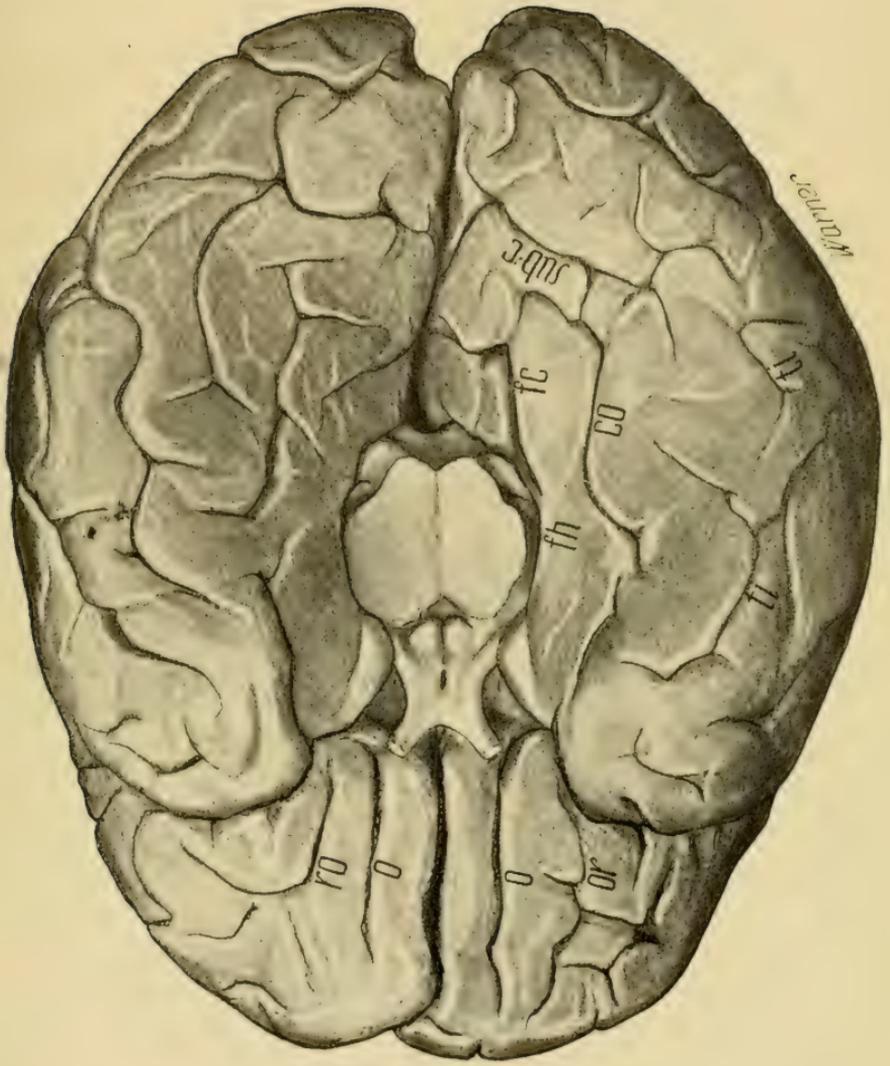
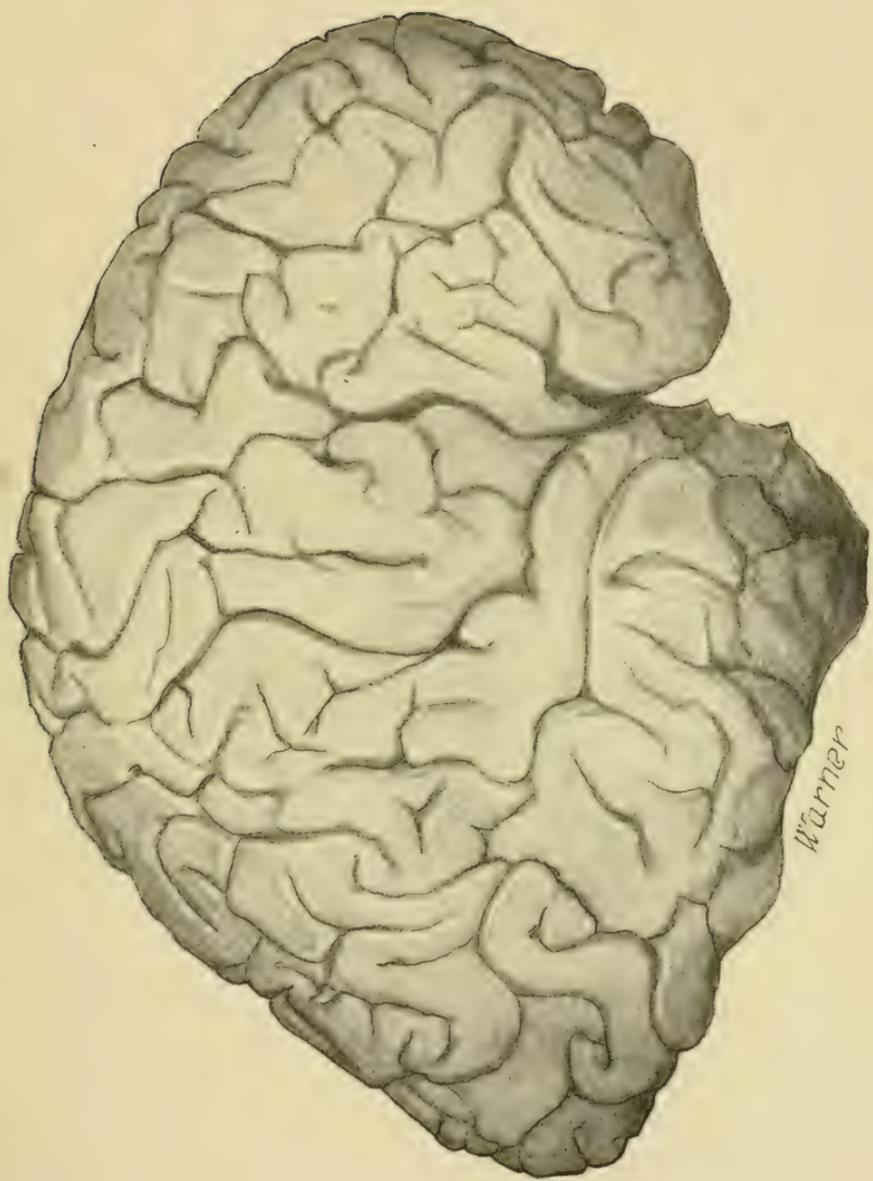
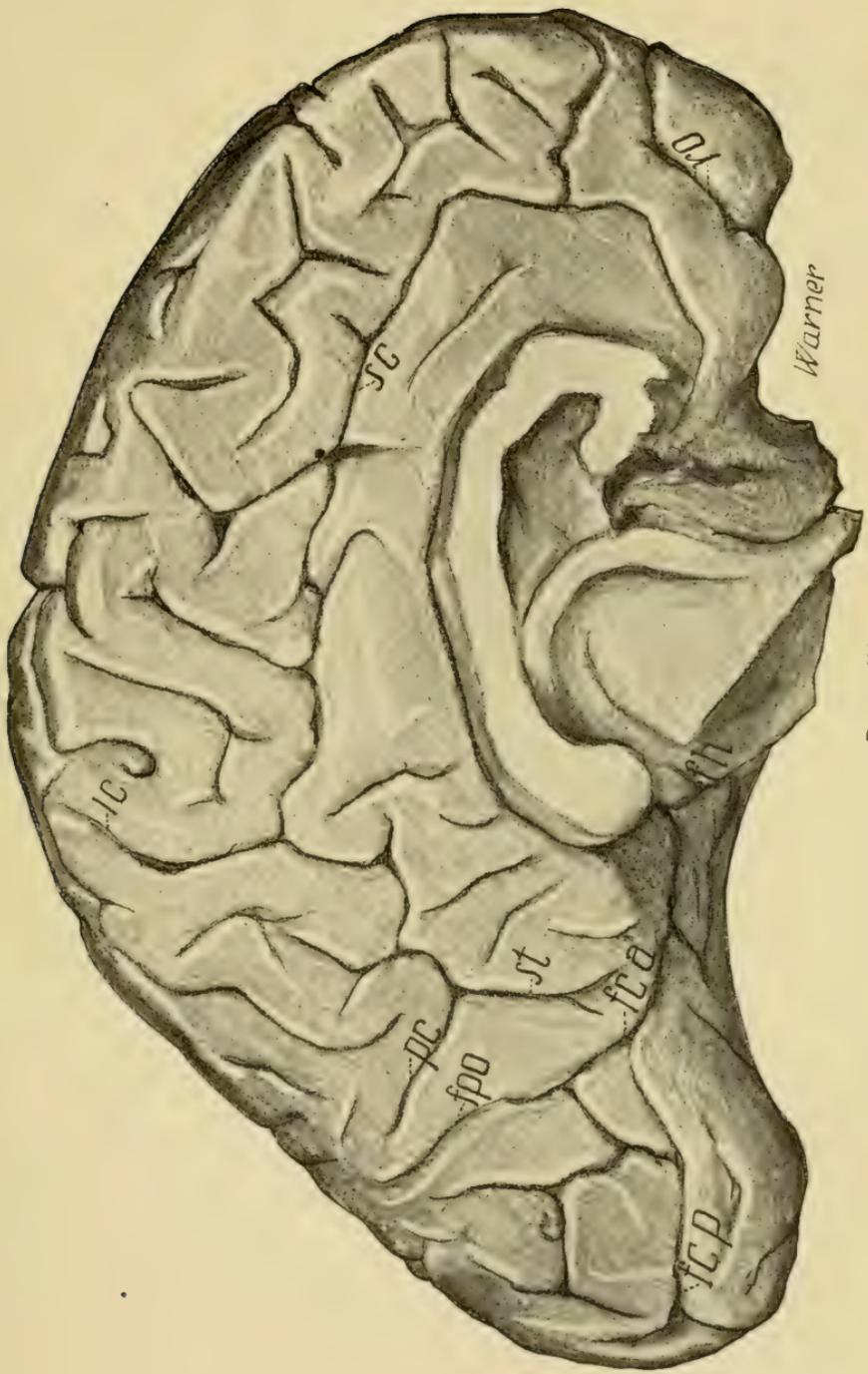


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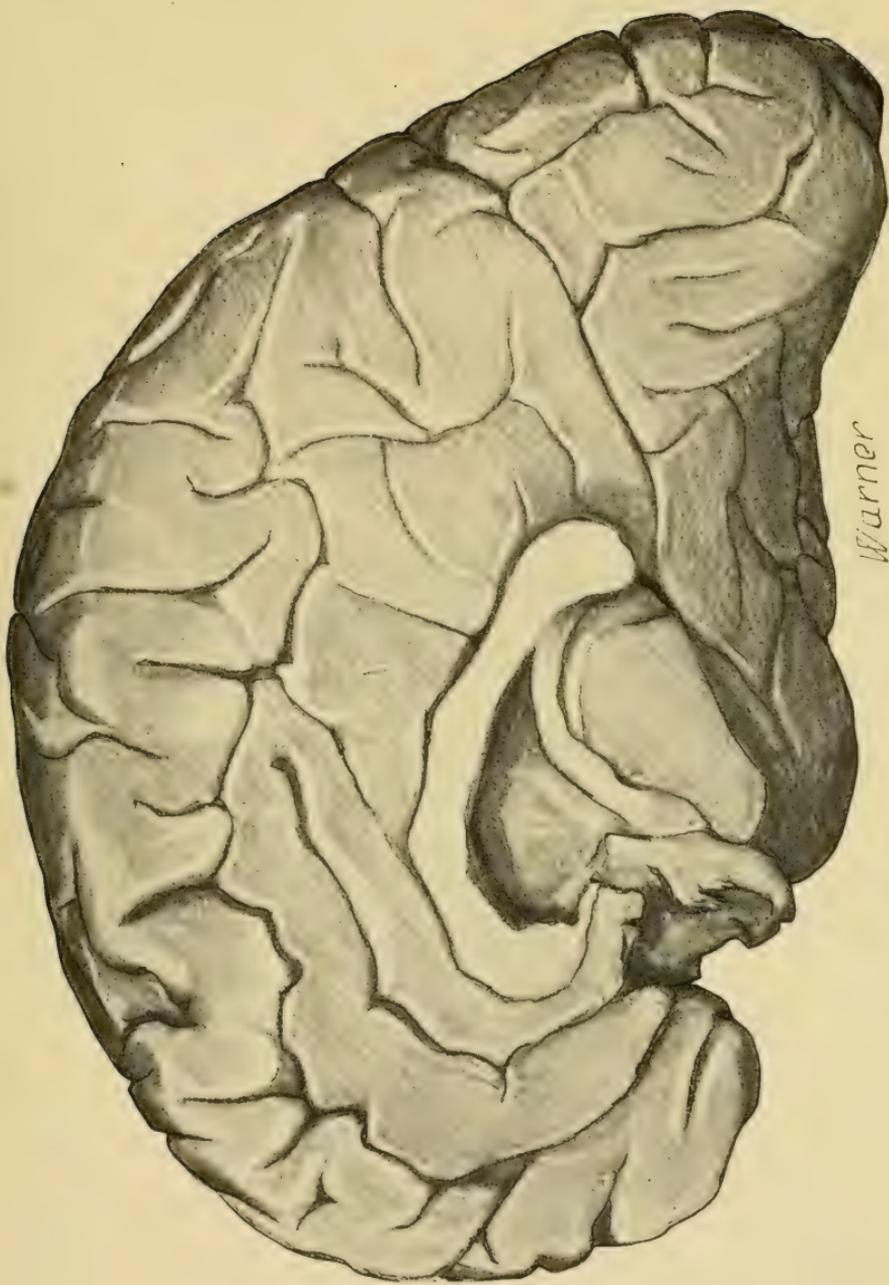


Warner

PLATE VIII

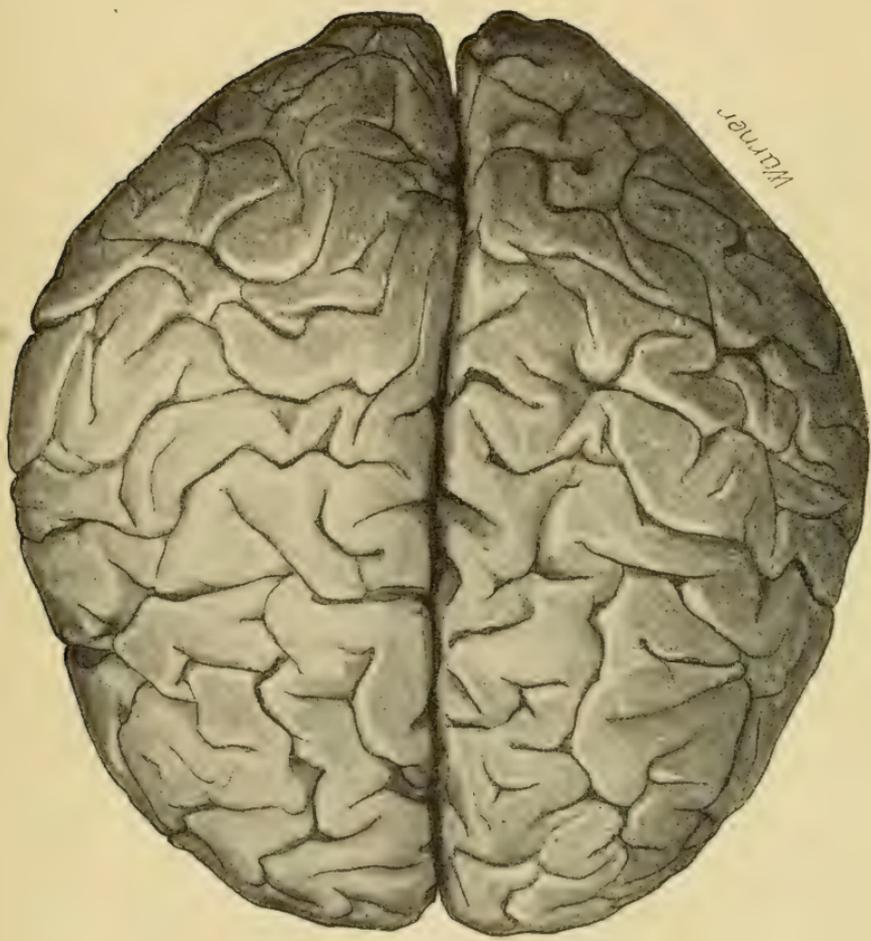


Warner



Warner

PLATE X



Warner

PLATE XI

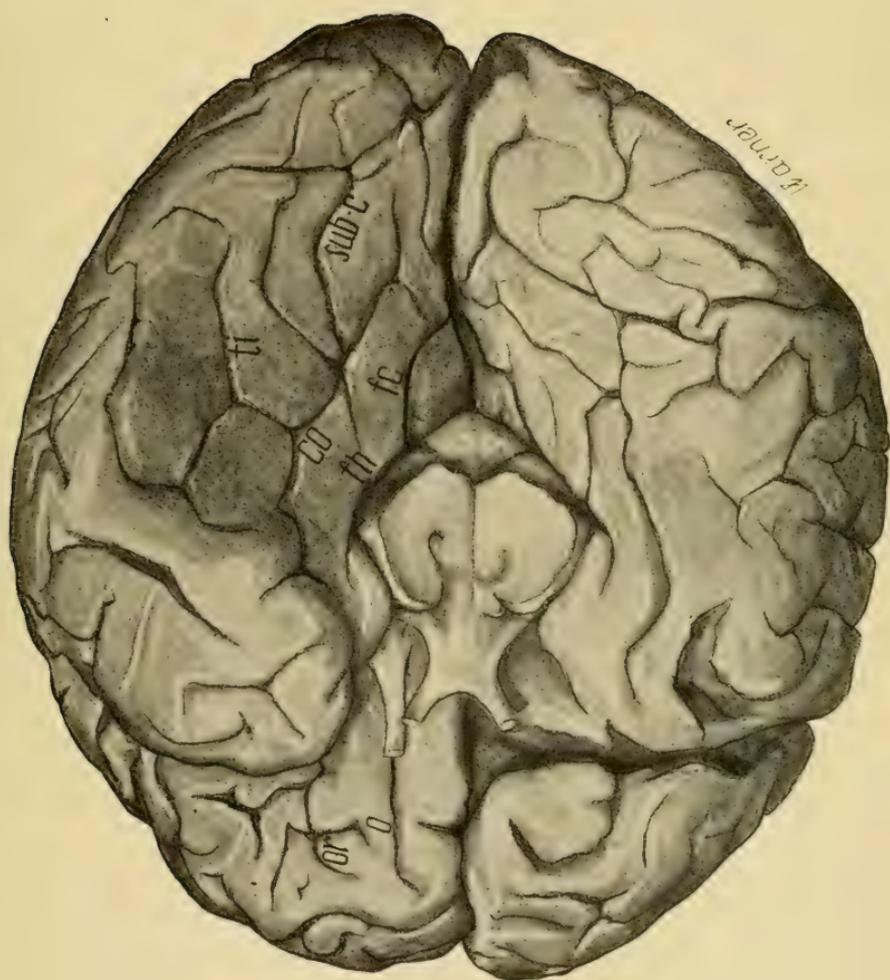


PLATE XII

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