Newcomb's catalogue of 1,596 stars reduced to an absolute system by the methods explained to the Paris Conference in 1896. The Conference authorized the preparation of the catalogue as a provisional fundamental catalogue, and the British and French Almanac Offices assisted in the calculations. The star places are given for 1875 and 1900. The revised catalogue of 383 stars included in the American Ephemeris for 1900 is taken from this fundamental catalogue.

PARALLAX OF THE ANDROMEDA NEBULA.

BULLETIN No. 6 of the Yerkes Observatory records an attempt by Professor Barnard to obtain an appreciable parallax of this nebula from micrometric measurements with the 40-inch refractor. Two small stars were employed and a series was obtained in July and August, 1898, followed by a second series in November and December, 1898. The differences between the two series are no greater than would be expected in such measures, and are contrary in sign to what would be required if the nebula is nearer than the stars.

A HYPERBOLIC COMET ORBIT.

THE number of hyperbolic comet orbits is so small, and their character, generally regarded, as so uncertain, that a genuine addition to the list is heartily welcomed. Mr. Aitken, of the Lick Observatory, has published in the *Astronomische Nachrichten* a definitive determination of the orbit of Comet 1896 III, discovered by Swift. A large number of observations were made at many observatories, which are discussed with great care and impartiality. The weak point in the investigation is that the observations extend over a period of but two months and four days, but the normal places are represented in a highly satisfactory manner by the hyperbolic elements. The residuals are very small in both right ascension and declination and cannot be reduced by any variation in the computed eccentricity.

WINSLOW UPTON.

PROVIDENCE, R. I., July 7, 1899.

RECENT PROGRESS IN THE EXAMINATION OF FOODS AND DRUGS.

IN the modern investigations of foods and drugs it is beginning to be recognized, to some extent at least, that it is the results of the labors of the scientific botanist and chemist which are being utilized, not only by the analyst, but also by the manufacturers of foods and drugs. New medicinal plants are being added from time to time to the materia medica; new food-producing plants are being discovered; the various active and otherwise valuable constituents of foods and drugs are being isolated and investigations made upon them; in short, the plants and their manufactured products are being so extensively investigated that it is quite possible in many cases to distinguish the pure from the spurious, and it would appear that the time is at hand for the framing of national food and drug laws. In the following an attempt is made to indicate some of the recent developments in the examination of foods and drugs.

MEDICINAL PLANTS.

AMONG the new economical plants from East Africa * may be mentioned *Mascarenhasia elastica* K. Schum. (N. O. Apocynaceæ), a tree which yields caoutchouc; *Canarium Liebertianum* Engl. (N. O. Burseraceæ), the bark of which yields a resin that much resembles olibanum; *Erythrophleum guineense* Don. (N. O. Leguminosæ), the bark of which contains Erythroplœin; and *Cordyla africana* Lour. (N. O. Leguminosæ), which yields an edible fruit.

R. T. Baker describes † two new species of *Eucalyptus:* (1) *E. dextropinea*, the volatile oil (0.85 %) of which consists largely of dextro-rotatory pinene, eucalyptol being absent: (2) *E. lævopinea*, the volatile oil (0.85 %) being made up largely of lævo-rotary pinene, but containing neither eudesmol nor eucalyptol.

The Strychnos species of Africa have been examined by E. Gilg, ‡ who divides them into two groups: (1) those with edible fruits: *Strychnos unguacha* A. Rich. (*S. innosa* Del.), *S. Quagua* Gilg, *S. cerasifera* Gilg, *S. Tonga* Gilg, also two species related to the latter whose fruits are no doubt eaten, *S. Welwitschii* Gilg and *S. cocculoides* Baker. (2) Those with poisonous fruits: *S. Icaja* Baill., *S. Kipapa* Gilg, *S. pungens* Solered., possibly also *S. spinosa* Lam. and

*Notizbl. d. Berl. Bot. Gart., 1899.

†Proc. Linn. Soc. N. S. W., 1898.

‡Notizlb.. d. Berl. Gart., 1899, No. 177.

S. Dekindtiana Gilg. These species do not contain, according to Thoms, any of the alkaloids found in nux vomica, but contain a bitter principle, not alkaloidal in character. From specimens * collected by Mr. and Mrs. Phillips it appears that the plant recognized by the Somalis as being the source of myrrh is that figured in Bentley and Trimen's 'Medicinal Plants.'

David Hooper † records the fact that when *Psychotria Ipecacuanha* is grown in phosphatic manure in India it produces double the amount of root (by weight) than grown in ordinary soil.

Unganda Aloes ‡ corresponds, according to W. A. H. Naylor and J.J . Bryant, approximately to the characters and tests of Cape Aloes.

It has been ascertained by J. Moir § that when *Scabiosa succisa* L. (N. O. Dipsaceæ) is chewed by cattle it causes violent inflammation of the mouth and tongue.

A. Davidson || records the fact that *Solanum Xanti* A Gray, a plant of California, and the leaves of the common cultivated fig produce eruptions on delicate skins when brought in contact therewith. The seeds ¶ of an Euphorbiaceous tree, *Omphalea megacarpa* contain an oil which is mild and tasteless and which acts as a purgative producing its action in about 3 hours.

MEDICINAL PRINCIPLES.

A NEW alkaloid † has been discovered in stavesacre (*Delphinium Staphisagria*) by F. B. Ahrens, which he calls *Stapisagroin*. It does not give any of the reactions for the alkaloids heretofore found in *Delphinium*.

E. Kauder ** finds in *Anhalonium Lewinii*, besides mescalin, anhalonidin and lophophorin two other bases, viz : *Pellotin* and *Anhalomin*.

The *Kampferid* †† previously isolated by E. Jahns from the alcholic extract of galangal root has been further studied by Ciamician and Silber. They describe it as occurring in shining yellow crystals (M. P. 227–229° C.), which are odorless and tasteless.

* Pharm. Jour. (London), 1899, p. 295.
† Ibid., p. 384.
‡ Ibid., p. 296.
§ Vet. Rec., 1899, p. 524.
|| Therap. Gaz. 1899, p. 86.
¶ Ber. d. D. Chem. Ges., 1899, p. 1581.
** Arch. d. Pharm., 1899, p. 3.
†† Chem. Centralbl., 1899. p. 1041.

The coloring principle (*Scoparin*) of *Spartium Scoparium* L. has been examined by Perkin.* He believes it to be probably methoxy-vitexin and finds that when digested with hydriodic acid it yields, besides methyl-iodide, a new coloring principle (*Scoparein*) which differs from Scoparin in possessing marked tinctorial properties.

The dried flowers of *Datura alba* from China have been examined by O. Hesse † and he finds them to contain 0.51% of hyoscine ($C_{17}H_{21}NO_4$), 0.03% of hyoscyamine and 0.01% of atropine. The hyoscyamine, while similar to that in *Hyoscyamus*, is not identical with the *Scopolamine* of Schmidt.

The active principle ‡ in the root of *Calliandra grandiflora* Benth., a leguminous shrub of Brazil and Mexico, appears to be, according to the researches of Duyk, a saponin, which he has called *caliandrin*. Internally it acts as an irritant and emetic. The poisonous principle (*temulin*) contained in the seeds of Darnel (*Lolium temulentum*) is ascribed by P. Guerin § to the presence of a fungus. The mycelia of this fungus were also present in two other poisonous species of *Lolium*.

Further investigations, by J. D. Fillipo, || upon the alkaloid in the bark of *Tetranthera citrata* show that it has probably the constitution $C_{16}H_{11}(OCH_3)_3(OH)_2.NH_1$ and that its action is similar to, but less toxic than, strychnine.

A crystalline principle has been obtained from the fruits of *Capsicum annuum* by Micko ¶ which he considers to be the active principle of *Capsicum*. The crystals are white; M. P. 6—3 63.5°C. ; formula $C_{18}H_{28}NO_3$. According to H. Molisch,** in the transformation of indican into indigo-blue in Indibopera, oxygen appears indispensable, and a number of bacteria and fungi accompany the reaction.

HENRY KRAEMER.

* Proc. Chem. Soc. 1899, p. 123.
† Südd. Apoth. Zeit., 1899, p. 2.
‡ Bull. Comm., 27, 81 ; through Pharm. Jour., 1899, p. 335.
§ Morot's Jour. de Bot., 1898, p. 230 ; through Ibid., p. 251.
|| Arch. d. Pharm., 1899, p. 601.
¶ Zeitschr. f. Nahr. u. Genuss., 1898, No. 5.
** Sitz. k. Akad. Wiss. Wien. ; through Pharm. Jour., 1899, p. 251.