The death-rate of San Francisco is somewhat higher than usual, owing principally to epidemic prevalence of scarlatina. As thus increased it is exactly the same as that of Philadelphia for 1873, and therefore lower than that of most great cities.

Aside from scarlet fever, it is claimed that the city of San Francisco enjoys unusual exemption from zymotic diseases.

The Chinese population introduce into the statistics a large element of uncertainty and error. Even their number is not accurately known. Their deaths furnish a very large proportion of those reported as "unknown" in causation. The figures as obtained would seem to indicate a mortality much greater than that of the white population.

We are disposed, however, to believe that other elements of error and uncertainty enter into these statistics, besides the ignorance and reticence of an Asiatic people.

If the death-rate of this city is really, and not merely apparently, low, it must certainly be attributed to the beneficence of nature; for we read of whole districts poisoned by bad sewerage and other forms of filth.

One ward, whose whole character, situation, and circumstances are most unpromising in a hygienic point of view, is yet found to exhibit a surprisingly low death-rate. The idea is suggested whether possibly the fumes of sulphurous acid, from a certain manufactory, may not possibly have exerted a disinfectant influence, by destroying in the air the otherwise fertile germs of disease.

B. L. R.

ART. XXXV.—*Fifth Clinical Report of the Rotunda Lying-in Hospital*, for the year ending 5th November, 1873. By GEORGE JOHNSTON, M.D. Edin., M. R. C. S. L., Master of the Hospital. Dublin, 1874.

Sixth Clinical Report of the Rotunda Lying-in Hospital, for the year ending Nov. 5, 1874. By GEORGE JOHNSTON, M.D. Edin. Dublin, 1875.

In the report for 1873, after showing the care with which his statement has been prepared, so as to make it unquestionably accurate, Dr. Johnston expresses his thanks that no epidemic had visited the institution during the year, although many such had existed in the city. This he attributes to improved ventilation obtained as follows :—

"The upper sash of a window in each ward being kept constantly open to the extent of six inches, to the doing away with the old-fashioned canopies and curtains of beds; the insisting on the immediate removal of all excreta from the wards; the thorough cleanliness of the patients and their surroundings; the regular attendance on them night and morning; supporting their strength with nutritious animal diet, such as chicken broth, beef-tea, etc., judiciously given from the commencement; and not allowing labour to proceed until febrile symptoms appear, but by timely interference relieving the patients from an amount of suffering and exhaustion, and consequent danger, to which they otherwise would be liable."

The general summary for the year is as follows :—

Patients confined in the hospital	1191
" " at their own homes	77
" under treatment in the wards for puerperal diseases	286
" prescribed for at the dispensary	2814
Total number of cases	4368

Of the 1191 patients confined in the hospital, 934 were cephalic cases delivered by natural efforts within twenty-four hours. In 39 the labour exceeded this period; 15 gave birth to twins; 1 to triplets; 44 aborted, *i. e.* within six months, two being hydatids; 5 children presented by the upper extremity, and 35 the lower; 142 were delivered with forceps. In 6 the perforator was used, after there was evidence of foetal death. Version in 16 cases. Labour induced in 2 cases of pelvic deformity; 10 admitted with accidental hemorrhage; 3 with placenta prævia; 10 cases of *post-partum* hemorrhage, one of which required injection of perchloride of iron; 13 cases of retained placenta; 10 of prolapsed funis; 4 cases of convulsions; 5 patients were epileptic; apoplexy occurred in 2 instances, and mania in 8.

State on Admission.—1, phlebitis from inflamed varicose veins; 6, typhoid fever; 2, gastritis; 25, bronchitis; 12, laryngitis; 1, pleuritis; 3, pneumonia; 4, phthisis; 1, disease of mitral valve; 1, renal disease; 3, ulceration of vagina; 1, ecchymosis of labia and perineum; 1, purpura; 1, rubeola; and 8 cases of syphilis; 35 of the women were labouring more or less under distress of mind; being cases of seduction; recently widowed; desertion; maltreatment, etc.

"Surely when such cases as these are taken into account, the hospital should not be charged with being the cause of their death, should it occur, as the same result would, in all probability, have taken place had they been confined elsewhere. And here I can confidently say, that after five years' experience, and close watching of 5791 cases, in no one instance could a death be attributed to their labour having taken place in the hospital." (p. 6.)

This is very strong testimony; going to show what can be done in an old hospital with proper care, in which at one time such results would have been thought impossible.

A large portion of the report is taken up with detailed statements upon the several heads already mentioned. We shall only refer to a few of them.

Triplets.—Eleventh confinement: girl, 6 pounds 4 ounces; boy, 5 pounds 8 ounces; girl, 4 pounds 8 ounces. Two placentæ united, and one distinct. Mother left with the three, on the 17th day.

Forceps Cases.—Of the 142, 104 were primiparæ, 65 of whom were delivered of male, and 39 of female children. 60 males were born alive, and 56 lived; all the female children lived. Of the 38 pluriparæ, 22 had male children, and 16, female. 19 of the former, and all of the latter were delivered alive. 2 males, 1 female subsequently died.

Results in Forceps Cases.—132 recovered; 1 pluripara, and 9 primiparæ died: 2 from peritonitis, 1 being a case of seduction, and the other anæmia; 2 of pyæmia, 1 being a case of seduction and the other great delay in first stage from size of foetus; 4 died of convulsions, 1 having albuminuria, and 1 embolism of right pulmonary artery with disease of kidneys and ovaries; 1 died of gastritis with which she was admitted; and 1 of laryngeal phthisis.

Craniotomy.—6 cases, 4 primiparæ, 2 pluriparæ. All recovered but one of the latter, who died in thirty-eight hours from shock.

Version.—16 cases, 3 primiparæ, 13 pluriparæ; 14 recovered, and 2 of the latter died, one of pneumonia twenty-two days after delivery, and the other of acute bronchitis on fourth day, having had the disease two weeks before admission. 12 children were born alive, 6 of each sex, of whom 2 males and 3 females died.

Post-partum hemorrhage not favoured by a short second stage, for of 686 cases where this stage was within an hour, there were but 4 of *post-partum* hemorrhage, out of the 10 cases that occurred in the whole; 3 were slight, and 1 required injection of solution of perchloride of iron.

Prolapsus of Funis.—10 cases, mothers recovered, 3 children saved.

1060 of the 1191 placentaë were delivered within fifteen minutes.

Deaths from all cases, 32, or 1 in 37½, 17 being accidental and 15 zymotic.

Causes of Death.—1, mental distress from seduction; 4, phthisis; 1, gastritis of some months' duration; 2, pneumonia, with which they were admitted; 1, syncope after violent passion on fourth day; 1, acute bronchitis contracted before entrance; 1, shock after craniotomy; 1, apoplexy; 1, heart disease; 1, Bright's disease; 3, convulsions; and 1, laryngitis.

The zymotic cases were, puerperal fever, 1; peritonitis, 7; pyæmia, 4; enteritis, 1; phlebitis, 1; and uterine diphtherite, 1.

"Deaths from zymotic diseases, to a great extent, have taken place in the various parts of the city, during the year; and although the patients delivered came from the various infected localities, and in some instances, even from among their families, where members were laid down with sickness, still they did not convey the malady to any of the other patients in the ward; thus showing that epidemics may prevail outside, and still the hospital be perfectly free from them." (p. 28.)

Having visited this institution at a period when its mortality was far greater than at present, we are glad to be able to report the benefit of an improved system of management in its wards and cases.

The report for 1874 presents the following general summary:—

Patients confined in the hospital	1236
" " at their own homes	153
" under treatment in the wards for female complaints	254
" prescribed for at the dispensary, one-half of which were treated for diseases of the womb in the gynecological department	4927
Total number of cases	6570

Of the 1236 delivered in the hospital, 997 were cephalic cases, terminating by natural efforts within twenty-four hours. In 40 the labour exceeded this period, the majority of which had been under care of practitioners or midwives before being sent to the hospital; 24 gave birth to twins. In 45 the ovum was expelled within the sixth month of gestation; the forceps were used in 138 cases; perforator not used. Version in 14 cases; 7 admitted with accidental hemorrhage; 6 with placenta prævia; 25 cases of post-partem hemorrhage, mostly trivial; 7 cases of retained placenta; 13 of prolapsed funis; 5 of convulsions; 2 epileptic; and 5 of mania, 1 of which died of apoplexy.

Mortality.—There were 15 deaths from all causes, against 32 in the previous year, or 1 in 82½. Of these, 10 were zymotic, viz., 3 scarlatina, 4 peritonitis, 1 pyæmia, 1 typhus, and 1 typhoid fever.

Scarlatina.—Ages 22, 26, 31.—In first, rash appeared in 39 hours after confinement; in second, immediately; and in third, in 51 hours. Death in first, on third day of attack; in the second, peritonitis occurred on third day, and death from it on the eleventh; and the third died in 48 hours from the disease, as in the first, without abdominal or uterine complication. There were 15 cases of scarlatina admitted, in all of whom the disease appeared on or before the third day, and there were no other cases of disease traceable to them.

Besides the 10 zymotic cases resulting in death, there was 1 death from apoplexy, 1 placenta prævia, 1 bronchitis, 1 sloughing, and 1 fatty degeneration of kidneys, liver, and heart.

Premature births 51; 31 in seventh, and 20 in eighth month. Of the seventh

month cases, all the mothers recovered but one, who died of hepatic and renal disease; 17 children were born alive, and but 3 girls and 1 boy lived. Of the eighth month cases, all the mothers recovered; 15 children born alive; 2 boys and 7 girls lived.

Forceps cases 138; 105 were primiparæ, 5 of whom died. The 33 pluriparæ all recovered. The deaths were one each of apoplexy, scarlatina, bronchitis, sloughing of vagina with peritonitis, and peritonitis. Children delivered alive 128, saved 119.

Degree of dilatation of the os uteri at the time of operation.—Four inches being assumed to be the measure of full dilatation, four-fifths will be $3\frac{1}{5}$ inches; three-fifths, $2\frac{3}{5}$ inches; and two-fifths, $1\frac{3}{5}$ inches. 24 cases were operated upon at $\frac{2}{5}$ dilatation, 19 being primiparæ; 18 primiparous children lived, and 4 pluriparous; 2 primiparous women died. 12 cases were operated upon at $\frac{3}{5}$ dilatation, 11 being primiparous. 10 primiparous children lived; the other two were still-born—mothers recovered.

Craniotomy not performed in fifteen months; attributed to the adoption of the double-curved forceps in place of those with straight blades.

Version.—14 cases, all primiparous; one mother died of hemorrhage, with laceration of vagina and cervix.

Placenta Prævia.—5 cases pluriparæ; 4 mothers and 3 children saved; 4 by version; 1, forceps.

Prolapse of Funis.—12 cases; all mothers recovered; 5 children saved.

Dr. Johnson uses the forceps once on an average in ten deliveries, and certainly has met with marked success in the results of his treatment. This frequency is condemned by some of his colleagues as a dangerous example for less skilful practitioners to follow. There have been instances here and in Ireland, where wonderful results were attained in private practice covering a number of years, by obstetricians who resorted to the instrument still more frequently than this, and even as much as one in seven.

R. P. H.

ART. XXXVI.—*Experimentation on Animals as a Means of Knowledge in Physiology, Pathology, and Practical Medicine.* By J. C. DALTON, M.D., Professor of Physiology in the College of Physicians and Surgeons, New York. 12mo. pp. 69. New York: F. W. Christern, 1875.

DR. DALTON'S little volume is a brief argument to the laity in regard to the subject of the use of animals for scientific investigations. He deals first with its character, and, defining cruelty, goes on to show just what amount of pain is given in the laboratory, and how far it has been over-stated. In so doing he should, we think, have discriminated as to his antagonists, some of whom would permit the use of animals to certain persons under certain general restrictions, while the greater number would deny to us all such aid. Perhaps Dr. Dalton's book may reach and touch the outside jury of the great public, but no one within the ring of philo-canines will be made by it to think that even for a man a dog should die or suffer.

In Chapter II.—The necessity of such experimentation is very neatly put. It might have been made stronger by the single case of a new medicine such as chloral. A physician suspects it to have power to give sleep. How shall he test it? On a patient—hardly. It may be a deadly poison. On a dog, of