of 22.2 mg. on Dec. 27, 1950, a change-over to cortisone acetate[7] was undertaken on Jan. 5, 1951, 300 mg. being given on the first, 200 mg. on the second and 150 mg. on the third day of treatment. From the rather high ACTH requirement, we concluded that 150 mg. of cortisone acetate would be necessary for maintenance. Subsequent experience proved this to be the case. The oral was soon substituted for the intramuscular route. Immediately after the change to cortisone the mean total eosinophil count fell to 55 per cubic millimeter, and there was additional clearing in the roentgenogram of January 9. Studies of respiratory function on January 18 demonstrated slight but definite improvement in both maximum breathing capacity (fig. 6) and vital capacity (fig. 7). Although the patient's cough and dyspnea improved, a slight degree of cyanosis persisted. On February 21, her eighty-seventh day of steroid therapy, she delivered a 6 pound 1 ounce (2,750 Gm.) boy.[8] Nine days after delivery she showed an increase in maximal breathing capacity from 112 l. to 127.6 l. per minute (fig. 6), but the vital capacity (fig. 7) remained unchanged. The patient was discharged on February 17 on a maintenance dosage of 75 mg. daily. This proved to be inadequate and was increased to 150 mg. The ultimate daily maintenance dose was found to be 100 mg.

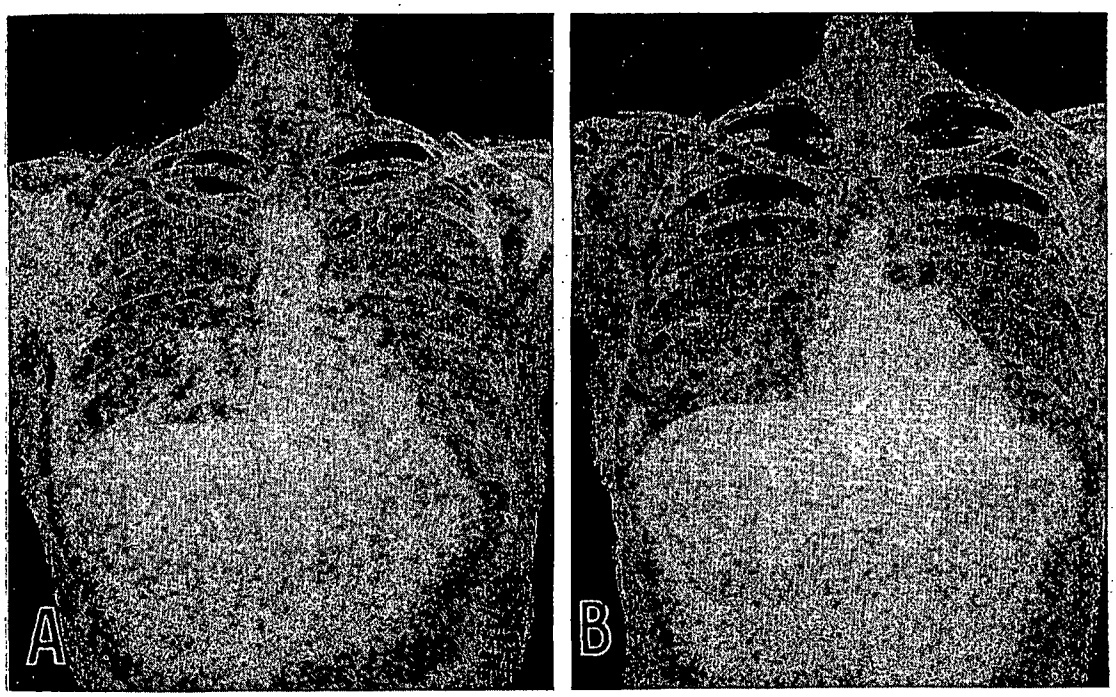

Fig. 5 (case 5).—Roentgenograms of patient L. K.: *A*, taken on the fourteenth day of inadequate ACTH therapy. It shows the lungs unchanged since the pretreatment film. Extensive diffuse "soft" shadows are superimposed on the characteristic fine granular background. *B*, taken on the eighty-sixth day of therapy (the day before delivery). There is considerable clearing at the apexes and in the left lung field.

On June 16, 1951, the 103d day of steroid therapy, she was subjectively much improved. There was no cyanosis at rest, and the oxygen saturation of the arterial blood as determined by the wood oximeter was 90 per cent. The maximal breathing capacity was 132 l. per minute and the vital capacity was 2,266 cc., both representing increases over the determination made at the time of discharge.

7. The cortisone acetate used was that marketed by Merck & Company, Inc., under the name cortone® acetate.

8. Although the infant appeared normal at birth, 48 hours later severe hypoglycemia developed, probably as a result of 11-oxysteroid insufficiency. Intravenous fluids, cortisone, adrenal cortical extract and later ACTH effected prompt improvement. He was discharged from the hospital in good condition on March 2. Twenty-four hour specimens of the urine of this infant, collected the second and third day after birth, contained a total of 0.4 and 0.015 μg. of beryllium.