In suing Dr. Stough and two associates for $270,000 in damages, Knott also reported that the incompatible blood had caused a double hernia, permanent secondary anemia and a 10 per cent reduction in life expectancy.

The defendants managed to settle out of court for $2,000 after Knott, who had been removed from the penitentiary for treatment, went off on a crime spree that landed him in a small town jail.

Only three months after this inauspicious episode, Dr. Stough embarked on an ambitious expansion effort. The financial rewards inherent in his initial plasmapheresis program would now be greatly multiplied.

He brought his plasma operation to Kilby Prison, a drab institution near Montgomery, Ala., in December, 1962, and in the following year he began drawing blood in two more of the state's prisons, Draper and Atmore.

In October, 1963, he started a plasma program at the Cummins Farm, a sprawling unit of the Arkansas state penitentiary that was quietly going through an era of general brutality and neglect.

PROTEINS EXTRACTED

Plasma itself can be used in the treatment of shock, but it also contains a number of proteins, including gamma globulin, that can be extracted and employed to counteract a variety of medical difficulties.

The gamma globulin from most donors contains enough antibodies against such diseases as measles and hepatitis to be effective when it is reinjected into a person who has been exposed to those diseases.

This is not the case, however, with diseases such as mumps, whooping cough, tetanus and smallpox. Groups of donors receive vaccinations to build up the antibodies in the gamma globulin intended to treat these illnesses.

The result is know as hyperimmune gamma globulin, and much of the plasma Dr. Stough extracted was used by manufacturers to produce this serum. It can be a hazardous process.

Dr. Stough demonstrated this immediately upon his arrival in Arkansas. Andrew Buddy Crawford, a 45-year-old inmate at the Cummins Farm, received the first in a series of whooping cough shots on Nov. 23, 1963.

DIED AFTER 8TH SHOT

More amounts of the vaccine were injected weekly for a time, and on March 7, 1964, after a two-month lapse, Crawford received his eighth shot. He became ill about a week afterward.

Crawford died slowly and in very painful fashion, and three Little Rock physicians, who reported the process with the lack of patients' names often encountered in medical journals, said it was probably the result of the repeated vaccinations.

It was left to The Pine Bluff (Ark.) Commercial to report, only last January, that the man who died on June 13, 1964, was Andrew Buddy Crawford, and that the program involved was directed by Austin R. Stough.

As a measure of his grip on the market at about this time, a Government source calculated that Dr. Stough's plasma would produce 193,970 cubic centimeters of hyperimmune gamma globulin solution monthly.

Since only about 800,000 cubic centimeters of this type of plasma product were distributed each month throughout the United States, Dr. Stough's output was the source of practically a fourth of the entire national supply.

OTHER PRISONS EYED

"With demand exceeding supply," a Government doctor wrote of the boom, "inquiries were made in other states concerning the possibility of opening plasmapheresis centers in other . . . prisons."

A certain style had developed. In Oklahoma, Dr. Stough himself was the prison physician. The salary of $13,200 a year was inconsequential by his standards, but the standing it gave him within the prison was invaluable.

So, in Alabama, he awarded Dr. Irl R. Long, the senior prison physician, a financial interest in the program. Until a few weeks ago, Dr. Long simultaneously received a salary of $942 a month from the state.

A committee of the Alabama Medical Association remarked in a report issued earlier this year that "this unconscionable situation, regardless of reason, should never have been permitted to come into existence."