PETROLEUM.

THE OIL FIELDS OF CANADA WEST.

The Supposed Extent of the Oil-Bearing Territory of Canada-The Township of Emmiskillon - Oil Springs - The First Discovery of Oil there-The Gum Beds-An Interesting Record of Flows ing Wells-Recent Developments. Correspondence of the New-York Times:

DETROLT, Thursday, March 22, 1868.

There are very few readers of the New-York Times who have not within the past six months heard more or less cornerning the celebrated oil fields of Canada West. And yet it is improbable that any considerable portion of them have a definite idea of their locality, extent, history, or productiveness. For the purpose of furnishing some information upon these topics, I ask the privilege of occupying a moderate space in your columns, promising that the statement will be made upon the most authentic information attainable, or based upon my own careful personal observation.

RITORY OF CANADA.

THE SUPPOSED EXTENT OF THE OIL BEARING TER-The supply of rock oil which for the last four or five years has entered so largely into the commerce of the British Provinces, has been obtained wholly in a territory situated on a belt of land extending from Lake Huron to Lake Erie, and chiefly embraced within the county of Lambton, bordering on Lake Huron and the River St. Clair. A more extended idea of the supposed oil-bearing territory, might be given, perhaps, by saying that it embraced all that region of Western Canada, which overlies that group of rocks which is known to geologists as the corniferous formation, consisting of fossiliferous and highly bituminous limestone, and embracing a very considerable portion of the southwestern peninsula. Canadian geologists inform us that many of the fossils of this formation pass up from the Oriskany sandstone and the intermediate Onondaga limestone, and they therefore unite them under the name of the corniferous formation. In classifying the geological formations of the Provinces, they have adopted, substantially, the nomenclature employed by the geologists of your State. According to Sir W. E. LOGAN, the Provincial Geologist, who has made a careful survey of the oil territory, this formation covers an area of between 6,000 and 7,000 square miles, and may be described as all that part of the Province lying to the south and west of a curved line running from the foot of Lake Erie through Stratford to an undefined point on Lake Huron, west of the mouth of the Saugeen River. There is, however, another important formation that enters largely into the geological structure of a portion of this region, and which is deemed essential to its production, if not the source of the oil itself. About this, however, there is a good deal of question. It is ascertained that the coriferous group of rocks to a considerable extent is overlaid by the Hamilton group, which consists of a series of limestones and shales, also generally charged with bituminous matter. These various groups compose a part of what geologists denominate the Devonean formation, upon which the oil-bearing territory of Pennsylvania, Virginia, Tennessee and Kentucky reposes. According to Prof. Winchell, of the Michigan State University and State Geologist, these limestones are eminently fossiliferous. He informs us that "they occur as thick masses of dark, hard, highly crystalline limestone; thin layers of the same, separated by shales, or loosely formed highly argillaceous limestone. The shales are either calcareous, indurated clay shales, in thick or thin beds, or purely aluminous shales, or dark or oven black bituminous shale, similar to the Genesee shale. This formation underhos a belt of country of irregular width, extending from Lake Huron to Lake Erie. The rocks dip westward beneath the lower peninsula of Michigan, with am easterly boundary undefined. The Genesee shale reposes on the Hamilton group, and also dips westward, with its eastern limits extending from Kettle Point, on Lase Huron, southward through the townships of Warwick and Euphemia, to Lake Erie. It appears to be an open question with geologists, whether the corniferous or the Hamilton formation is the source of petroleum in Canada. One fact seems to be pretty well established, however, to wit, that where the Hamilton rocks are found to be covered with shale, or near by, there, as a general thing, petreleum in produced in the greatest profusion. This ic the case with a considerable portion of the Townthip of Enniskillen, in the County of Lambton, an haportant locality of which, known as Oil Springs,

Lambton County. The surface of the country is genexally level, though in some sections slightly undulating. There are no remarkable geological indications that would lead one to suppose that there were any assportant elements of wealth concealed below. The rounty is covered with a dense forest of hard timber, with a profuse growth of underbrush. The township is meersected by two principal streams, known as Luck and Bear Creeks, whose channels flow from the mortheast to the southwest, forming a confluence with the Sydenham River, a tributary of Lake St. Clair. These streams with their tributaries pass through r vines or depressions from the ganeral surface of about thirty feet, with gently sloping sides. The ravings varying in width from a few feet to an eighth of a mile. W. M. ... Persons exploring the township for oil lands, will find it quite necessary to be fully posted in reference to the subdivisions of townships as they are desig-

at present the petroleum centre of the oil territory of

TOWNSLIP OF ENNISHILLEN-OIL SPRINGS.

The Township of Enniskillen is centrally situated in

Lanada, I shall presently speak more fully.

mated in Canada. These subdivisions are called conpossions, consisting of tiers of lots, which, in Enniskillen Township, number from the south township line running north, from one to fourteen, inclusive. These oncessions are subdivided into lots, each seveneighths of a mile long, and 120 rods wide, each con-Taining 200 acres. The village of Oil Springs is situated in the southern concession, embracing lots from Nos. 15 to 20 inclusive, and is intersected by Black Creek, a sluggish stream, crossing the main street about the centre of

the village, and at another point about half a mile below. It is eighteen miles southeast from Sarnia, at the foot of Lake Huron, with which place it is conmeeted by a durable and excellent plank-road. It is also connected by another plank-road with Wyoming Station, on the northern branch of the Great Western Railway, fourteen miles directly north. In 1860 there were but two or three houses on the present site of the village. Its population is now estimated at 3,500. Its buildings are generally one and a half and two stories high, built of wood, rude structures, with few exceptions, evidently built in great haste. Along the line of the principal street there are no fences, and a few rods off the forest looms up in solemn grandeur. Log-houses and frail wooden-tenements of a primitive style of architecture, dot the whole length of the street, and the slopes and flats along the ravine, for nearly two miles. Derricks, engines, and temporary board cabins meet the eye along the street and far into the woods, and everything presents the bustling and busy characteristics that appertain to a community actuated, by energy and intense earnestness of purpose. Such is Oil Springs, the petroleum centre and capital of Western Canada. It was here that the first discovery of oil was made in the Provinces, and where the earliest efforts to optain it from the rocks were first instituted. HISTORY OF THE EARLY OIL DISCOVERIES-THE GUM BEDS. The existence of rock oil has been known to the Indians of Canada from time immemorial, and was indicated by springs of oil bubbling up through the

streams and floating on the surface of the water. The Indians were accustomed to gather it by spreading their blankers over it, to which it would adhere, and thus they saved considerable quantities, which they used chiefly for medicinal purposes, and to which they attached great value as a remedy for external wounds and bruises. The I-n dians called the attention of the white settlers of that vicinity to these springs as early as in 1833, and also to the existence of several large surface deposits of bituminous resin, a thick tarry substance resembling asphaltum, which was found in great abundance. This substance is an altered form of petroleum, which centuries ago, through some subterranean agency, was forced up from the rocks, and after long exposure to the sun and the atmosphere, became volatilized and partly oxydized, leaving solid beds of the natural petroleum on the surface. The principal beds are two in number, occupying an area of about five acres each, and are about half a mile apart, varying in thickness from a few inches to nearly three feet, retaining the impressions of vegetable and animal life which had been imbedded in the oil while in a liquid state. They are familiarly known by the Canadians as "gum beds." It is the theory of some geologists that the

rock immediately below them is the crown of the

anticlinals, where the oil, being lighter than water,

was, by natural causes, set free. of these beds has been regarded

bearing centre of Enniskillen. But of this there is no certainty, since excellent wells have been sunk at various points, and at such remote distances as to preclude the idea that the particular locality they occupy is more favored than others. Be that as it may, one thing is very certain, that nature has seldom afforded a more exuberant yield of petroleum than is there indicated. Recent explorations for miles north and south, east of this point, show that oil may be found in considerable quantities, as at Petrolia, Dawn and Bothwell. Besides these natural beds of petroleum at Oil Springs, there are several smaller ones in various parts of the township, and other unmistakable indications of the existence of an immense basin or a system of reservoir underlying the whole of this region. Among these is a remarkable gas spring, on lots 22 and 23, second concession, discovered by the Indians many years since. It emits a large volume of inflammable gas, which ignites freely, and has continued to burn at certain seasons for three months without intermission. It issues from a deep fissure in the clay, open to the very surface, and what is somewhat remarkable, its pulsations are said to be in sympathy with the former flowing wells of Petrolia, some seven miles distant. THE FIRST MANUFACTURE OF REFINED CIL IN

CANADA.

The first effort to manufacture petroleum as an illuminating substance in Canada, was made on the "gum beds" before alluded to. In 1856 a company was organized, which was known as the International Mining Company, its object being the development of the mineral resources of the Western Peninsula, including the working up of the gum taken from the beds before referred to. During that year the Company shipped a quantity of the crude material to different parts of Canada and the United States, for experimental purposes. Several chemists succeeded in distilling from it a very fair quantity of illuminating oil. But it was not found profitable, and the Company felt compelled for the want of adequate capital to abandon the enterprise, and sold out their interest to J. M. WILLIAMS, an enterprising gentleman of Hamilton, who with W. HARRISON, present Postmaster at Oil Springs, commenced the manufacture of oil from this gum in 1857. They erected near the east bed a log cabin, constructed a bench of gas retorts, and commenced the manufacture of oil, which, though an inferior article, there was considerable demand for it for local purposes, and they were encouraged to continue the business. In the Fall of 1858, an accidental circumstance was the means of disclosing the latent wealth which is now so highly prized, and of opening a new era in the commercial history of Canada. In the month of September of that year, a drought occurred which made it necessary to sink a well for the purpose of procuring water for the use of their distillery. They had proceeded only about fourteen feet through a bed of bluish clay, when greatly to their amazement they encountered liquid petroleum, having unexpectedly opened a surface well, yielding from twenty to thirty barrels per day, for a period of about six months, when the oil began gradually to fail. They were not slow to appreciate its value, but so unexpected was the discovery made, that at first they were unprovided with means of securing it, a want, however, that was soon supplied. After the failure of the surface well, they drilled into the limestone rock, striking a rich vein from which they commenced pumping, and this well is yielding to this day a bountiful supply. Several other surface wells were sunk in that vicinity, all of them yielding abundantly.

adian oil enterprise was yet to be disclosed. One John Shaw, a Canadian by birth, conceived the idea of deeper drilling, and after a long and wearisome task, almost despairing of success, on the 16th of January, 1862, reached a very prolific vein, and found himself in possession of a flowing well of great capacity, but with limited means of securing the oil, a large portion of it escaped into the adjoining creek. The oil excitement then began to spread through Canada. Several new wells were sunk and some of them turned out to be very extensive flowing wells. The means at hand for preserving the precious fluid were entirely inadequate, and the consequence was that millions of barrels of oil were suffered to flow down the bank into the creek, presenting literally a freshet of oil, varying from three to eight inches in depth as it floated down on the water. The evidences of this remarkable flow are still visible all along the banks of the creek, marking the trunks of trees for miles with an indelible black, the cause of which cannot be mistaken. On one occasion some boys, in a thoughtless mood, set fire to the oil thus flowing, which communicated along the line of the creek a considerable distance, and presented at night a grand and terrific spectacle. It was fortunate that at that time there were few houses exposed to danger. Such an event occurring now would prove immensely destructive. The history of these wells cannot but prove interesting, not only to practical oil operators, but to scientific men who are investigating the subject of

But the great event in the history of the Can-

petroleum. It is questionable whether any other part of the country has furnished a record of flowing wells of equal capacity. I am enabled to furnish you, on the authority of Prof. WINCHELL, of the Michigan University, who bestowed much careful investigation upon the subject, the following nearly complete list of the flowing wells of this period, with their location, according to the township divisions and subdivisions; the name of the well being preceded by its depth in the rock, and followed by its estimated yield per twenty-four hours. The localities are more particularly described by the subdivision, range and concession; as indicated by the abbreviations; The many - The way of the service of LIST OF OLD FLOWING WELLS AT OIL SPRINGS. Depth,ft. Yield, bbls. 3....Finn & Brown, (barely overflowed intermittently.) L. 17, Con. 1..... 104....Solis, Sub. 16, R. A, L. 18, Con. 2......

108....Purdy, W ½ L. 19, Con. 2........... 1,000

115...Evoy Bros., W. ½ L. 19, Con. 2...... 116...Jewry & Evoy, W. ½ L. 19, Con. 2..... 116.... Fairbanks, Sub. 31, R. 5, L. 17, Con. 2... 500 130.... Campbell, W. ½ L. 19, Con. 2..... 132....Bennett Bros..... 136.... Chandler, Sub. 33, R. 2, L. 18, Con. 2... 100 155....Jewry & Evoy, same as above bored deeper...... 2,000 157....Sifton, Gordon & Bennett, Sub. 2, L. 18, 150 Con. 2..... 158....Shaw, Sub. 10, R. B. L. 18, Con. 2..... 3,000 160.... Wanless, Sub. 6, R. E. L. 18, Con. 2..... 160....McLane, Sub. 2, E, part 18, Con. 2..... 160....Ball, Sub. 3, E. part L. 18, Con. 2...... 160....Rumsey, Sub. 6, E. part L. 18, Con. 2.... 160.... Whipple, Sub. 8, R. A. L. 18, .Con. 2.... 163.... Sanborn & Sherman, Sub. 13, R. C, L. 18, Con. 2..... 163....Campbell & Forsyth, Sub. 12, R. C, L. 18, 163.... Wilkes, (or Wilson,) Sub. 9, R. A, L. 18, 164....Bradley, Sub. 13, R. 1, L. 18, Con. 2.... 8,000 167.... Webster & Shepley, E. part L. 18, Con. 2 6,000 170....Leavenworth, Sub. 7, R. C, L. 18, Con. 2 170.... Culver, Sub. 7, R. C, L. 18, Con. 2..... 173.... Allen, Sub. 32, R. 5, L. 17, Con. 2..... 2,000 175....Barnes, Sub. 36, R. 5, L. 17, Con. 2..... 178....Petit, W. ½ L. 19, Con. 2..... 180....George Gray, Sub. 32, R. 1, L. 17, Con. 2 150 180.... Holmes, Sub. 9, E. 1/2 L. 19, Con. 2..... 187.... McColl, Sub. 37, R., 2 L. 17, Con. 2..... 1,200 188.... Swan, E. part L. 18, Con. 2...... 6,000

It is believed by those who have bestowed careful attention upon this subject, that the quantity of oil that was suffered to flow off upon the water of Black Creek, exceeded 5,000,000 barrels during a single season! It is doubtful whether there is a similar record of such enormous quantities of petroleum escaping in so brief a period at any oil locality in the country. THE FLUCTUATIONS IN THE PRICE OF OIL. The question very naturally arises, why was not

190....Nelson, Sub. 29, R. 7, L. 17, Con. 2.....

237....Black & Mathewson, Sub. 12, L. 17,

212.... Fiero, Sub. 1, R. 4, L. 19, Con. 1..... 6,000

this enormous waste of oil prevented? This may be

answered by saying that there were not tanks and barrels enough in all Western Canada to secure it. Besides, oil then was comparatively a new article of trade, and its commercial value was hardly comprehended. During that season the price ranged from 10 cents to \$1 per barrel. The roads leading to the railway station were almost impassable; so much so, that rather than risk a load by wagon-in fact, at that time, a team was taxed to its utmost capacity to draw an empty vehicle, to say nothing of even a single barrel of oil added to its weight-an ordinary ditch by the roadside, filled with slush and water, was sometimes used as the channel of transit. By this improvised canal many a barrel of Enniskillen oil was hauled by hand to the nearest and most convenient raiway station. Nor were the fluctuations in prices favorable to the early development of the oil activities of that section. Men engaged in all business enterprises naturally desire a steady demand at steady prices. But the quotations were so fluctuating that no calculations could be made as to the remun erativeness of the business. For example: In 1860 the market value at the wells for surface oil was \$4 per barrel. It was then a new article in the market, and Canada was supposed to possess the The vicinity monopoly. In 1861 it declined to \$2 and soon after | ject.

as the oil- to \$1. In 1862, when the flowing wells were struck | DURFEE was to come on to this city, stop over night | w

the oil was only worth 10 cents per barrel, and in the Fall of the same year, it advanced to 50 cents, and the ensuing January it reached \$2, declining the ensuing June to \$1, and advancing the following September to \$6. Early in 1864 it again declined to \$3, rallying the next Fall to \$5, where it remained steadily during the Fall and early Winter, declining again in the early months of 1865 to \$4. Last July sales were made at \$5, and in November at \$7 50. The highest quotations during the past Fall were \$10 50@ \$11, in gold. It will be seen that the period for paying the highest prices for oil has occurred during the Fall and early Winter months, the decline during the Spring and Summer being occasioned by the absence of demand—the amount consumed for illuminating purposes being from 50 to 75 per cent. less than during the Winter months. As the value of petroleum becomes more generally comprehended by the world it will hardly fail to command a more steady average value. The producers of oil are giving this subject much practical attention, and as is the case in all departments of industry and new enterprises after an experience of a few brief years, they will be enabled to hold their oil as other necessary products of commerce are generally held by producers, subject to the law of supply and demand as ordinarily controlled by the yearly average of consumption. Outside speculators in oil will be taught; some important lessons upon this subject when the producers have time to give their attention to it. A particular well may produce a hundred or a thousand or more barrels per day. That is the good luck of the proprietor. But it should be remembered that whilst but few such cases occur, the great majority of wells yield but a tenth part of that quantity. So that the business, on the whole, so far as profits are concerned, is reduced to about the same foundation that most other branches are based upon. It must be controlled by the inevitable law of supply and demand. The oil business, however, has been seriously affected by circumstances that have not been within the power of practical oil operators thereselves to control. Some fortunate proprietor or lesseesinks a well and strikes a rich vein. His well, with its abundant yield, immediately becomes a prominent topic of conversation. But he has special reasons for not promulgating the full facts to the world—reasons which are similar to those which actuate business men in all the commercial and industrial pursuits. He prudently prefers that the world should not know that his well produces one or two hundred barrels per day, thus adding to that extent to the supply of the petroleum market. But inquisitive neighbors are around, and not the least of these are the owners of five, ten, fifty or two hundred acre lots in the immediate vicinity of the fortunate well. No sooner is it announced that such a well has been opened than these very disinterested gentlemen resort to the telegraph. Their dispatches are spiced with the exaggerations of an exuberant fancy, and inspired by the idea that their own property will be greatly increased in value—that, in fact, they will be made rich by the advertisement which thus goes out to the world, the product of the well is magnified tenfold. They do not stop to reflect that whilst the circumstance which forms the weight of these dispatches may possibly increase the value of their lands, that the pretentious promulgation of the same also has the effect to depreciate the market price of oil. The consumers and dealers reason very naturally that such a vast increase will be followed by still further similar developments; that the market

the immense fluctuations in the market quotations. THE RECENT OIL DEVELOPMENT. Almost simultaneously with the discovery of the great flowing wells of Canada, borings were vigorously prosecuted in Venango, County, Pennsylvania, and also in West Virginia. The enterpise was almost entirely abandoned in the latter district, however, on account of the guerrilla raids; but was followed up with great energy in Pennsylvania, and with a degree of success that has scarcely had a parallel in mining enterprises. The great flowing wells upon Oil and Pit-hole Creeks caused much excitement, and the Canada oil territory seemed to have passed under a temporary cloud. All eyes were turned toward the Blood Farm, the Phillips Well, the Empire, and more recently the United States Well, which, if we are to believe all that has been published, yielded each over two thousand barrels per day. Modern science, both geological and chemical, backed by the capital and the enterprise of the great commercial centres was directed thither. Some fortunes were made, and half the people became crazy under the oil excitement. The lack of energy, enterprise and skill, which is characteristic of the Canadians, marked the history of the cil development of Enniskillen for some three years following the discovery of the Pennsylvania wells. After the flowing wells had ceased to yield spontaneously, but little systematic effort was made to develop the territory. The wells were imperfectly sunk, and were worked with primitive and very rude machinery. "Spring-poles," worked by one or two men, mules and horses, or the most inefficient engines, were the motive power depended upon. There was clearly a great want of capital and lack of enterprise. Many persons without either of these important requisites were induced to buy lands and sink wells. Of course, three-quarters of them were compelled to abandon the undertakings, and many rude derricks, of tripod form, still stand as monuments of the blasted hopes and buried anticipations, with the unfinished and imperfect wells that are sunk beneath them, fit emblems of the provincial dullness that controlled the early period of Canadian oil enter-And yet, with all the disadvantages under which the

will be glutted, and its price must come down. Such

are undoubtedly some of the influences which cause

the years 1861 to 1864 there were exported from the Province 2,292,758 gallons, at a customs valuation of \$353,855, or a trifle over fitteen cents per gallon. I have no accurate data at hand to state the actual production at the wells in the various districts, at the present time. It is safe to estimate the aggregate amount per month at 10,000 barrels, or 400,000 gallons, which, at the average price for the last five months, would net to the producers \$80,000 per month, or about 20 cents per gallon. There is of course an absence of such immense speculative profits, in Canada, as are indicated by the accounts we have of the flowing wells in Pennsylvania and Western Virginia. Such wells ceased to flow at Oil Springs four years since. They do not now seem to promise so largely at Pithole and Titusville. In both cases, probably, the great oil reservoirs still contain an abundance of the fluid, affording strong encouragement for the future employment of capital and skill in that branch of enterprise; the advantage, however, at present being in favor of Canada, on account of the cheapness of labor and fuel, the absence of taxes, and the close proximity of the territory to the great thoroughtares of commerce. THE DURABILITY OF THE WELLS TESTED. Many persons have entertained the idea that after

business had been conducted, it appears that during

the flowing wells have ceased, the supply of oil is chiefly exhausted. But this theory does not seem to

be sustained by facts; and it will, doubtless, interest all persons giving their attention to oil phenomena, to be informed that there are many wells here, remarkable for their prolific yield in 1862, have been all along, and are still regarded as among the most valuable wells in this section. The fact that after the drill has reached a rich vein, and the oil is forced up by the gas, affording a spontaneous and abundant now, and then subsiding, is no more conclusive evidence as to the exhaustion of the main reservoirs of the fluid, than, that upon uncorking a bottle of champagne, the temporary effervescence overflowing therefrom, and the abatement of the flow which follows, is an evidence of the absence of the sparkling nectar, nearly all of which is sure to be found remaining intact, in the bottle. I have a list of some eighteen of these old wells, most of which have been worked with scarcely any interruption for the past four years, now yielding from ten to forty barrels per day; and there are several others belonging to the same category, of which I can obtain no definite account. Such is the confidence entertained in the durability of these old wells, that many others that have been lying dormant for several years, have been purchased by Eastern capitalists, who are now re-drilling and cleaning them out, and furnishing them with new and powerful machinery. The proprietors are practical oil men and capitalists, who are sanguine of meeting with successful results. Beside these, there are some forty or more new wells that have been recently completed, yielding from five to fifty barrels per day, and even a larger number, that are in the various stages of progress toward completion, many of which are nearly ready for pumping, and the indications afford the highest en-

couragement to their owners. There is one marked characteristic in respect to the oil territory of this vicinity. It is found that there are comparatively few failures to reach good paying wells, where the proper agencies have been applied accompanied by good management. A good well can be sunk here at an expense of about \$5,000 in gold. This includes the cost of an acre of ground in fee simple, and all the necessary outgoes attending such an enterprise. Even a five barrel well that is judiciously worked, will be found to yield a handsome

profit here, while in Pennsylvania it is ascertained by experience that any well yielding less than twenty barrels will not pay the expenses of work' g. I have met several practical oil operators here from Pennsylvania, all of whom give it as their opinion that for certainty of finding oil at a depth of only from 250 to 400 feet, the steady supply of the wells, the comparative expense of sinking them, and the current working expenses after the oil has been reached, the advantages are altogether in favor of Canada. I would furnish you with some interesting figures upon these topics, that have stood the test of careful examination by practical men from the various oil districts of this country; but I fear I have already trespassed upon your space and the patience of your readers. With your permission I will hereafter present a few other important facts concerning this region, that will doubtless prove interesting to the general reader concerned in oil matters. The Murderer Durfee-Confession of the Crime. From the Grand Rapids Democrat.

We learn, though not officially, that HOSEA N.

DURFEE, the man who has just been arrested and is now in close confinement in the county jail in this city, for the murder of one Mrs. Belden, in Court-

land township, in October last, has substantially confessed that he committed the awful crime. Several of our officers were with the culprit for several hours during yesterday afternoon and evening, when the miserable man made in substance the following statement of the affair: He said that, in coming to this city, he accidentally met a man on the cars with whom he entered into con-

versation, and finally became familiar with him; that he told the stranger he had a woman with him, pointing to Mrs. BELDEN, whom he wanted to get rid of. Upon this announcement the said stranger (whose name and residence is not given) acknowledged himself ready for a job of the like character in a certain play, rubbed his hands with joy at the prospect of so delightful a piece of work. They then made their arrangements for the accomplishment of the desired ob-